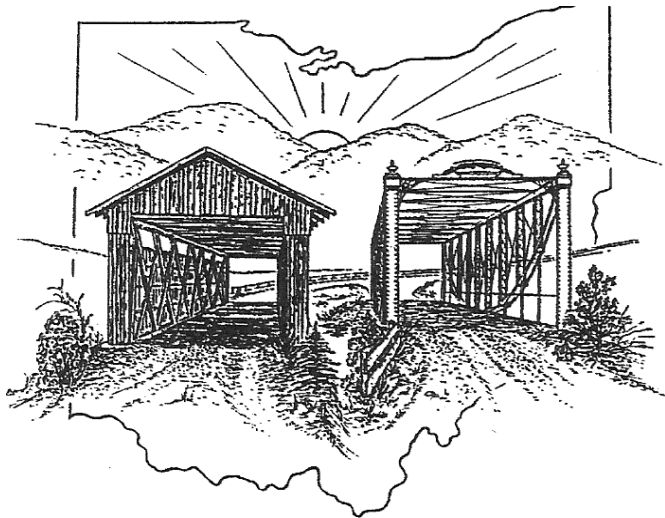


Latest Ohio Historic Bridge News



# Bridges and Byways

*Journal of the*

Ohio Historic Bridge Association  
Volume XXXVI  
Spring 2022

### Meeting Notes:

**March 20, 2022 1:30 pm. Meeting. Speaker:** Mick Schumacher from Monroe County. **Topic:** "Knowlton CB Reconstruction." Ohio History Connection, Cardinal Room, 3rd Floor, Ohio History Center, 800 E. 17th Avenue, Columbus, OH (Exit 111 off Rt. I-71).

**May 14, 2022 Saturday 9:30 am Spring Tour of Columbiana County.** Includes 5 covered bridges, multiple iron bridges, multi-span stone arches, Sandy & Beaver Canal features, an iron furnace ruin, a grist mill, and a commercial and residential historic district. Meeting place to be determined by next newsletter time.

**July 17, 2022 Summer Picnic. Noon. Salt Creek Covered Bridge**

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**NOTE: By popular demand, tours have been changed to Saturday rather than Sunday as in the past. Also the departure time for this tour is 9:30 am rather than 10 am.**

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### Ashtabula County Activities:

**April 9, 2022:** "Spring Fling" raffle and dinner

**June 11, 2022:** "2<sup>nd</sup> Annual Poker Chip Motorcycle Run"

**July 30, 2022:** "Boots and Bling" on the Smolen Gulf Bridge

For further information go to [Coverdbridgefestival.org](http://Coverdbridgefestival.org) or call (440) 576-3969

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**Renewal subscriptions are due by January 15, 2022. See page 7 for details.** Your mailing label has your subscription date above your name.

The OHBA Web site is now available at [www.oldohiobridges.com/new/OHBA](http://www.oldohiobridges.com/new/OHBA)

OHBA is a not-for-profit organization incorporated in the State of Ohio and is recognized as a non-profit organization under 501 (c) 3 of the Internal Revenue Code.

The OHBA mailing address is

**Ohio Historic Bridge Association  
PO Box 153  
Galena, OH 43021-0153**

## The President's Span.....Doug Miller



As typical, during our November 21, 2021, meeting, we voted for the next year's slate of officers. The slate was unanimously approved, but there was a slight change. After many years as president and leading and expanding our historical reach, David Simmons asked to perform a different role and asked me if I was interested in switching positions. After a few days of thought, I agreed to the change. David will now serve as 2<sup>nd</sup> Vice President, Corresponding Secretary and Historian. I suspect he will be just as busy as before because he will also be answering all my questions! Even with a slight leadership adjustment, it's hard to change anything when the well-oiled clock is fully ticking. My intent is to tweak certain areas that may need attention.

As to my background, I am a registered professional engineer graduate from Tennessee Technological University with a BS in Civil Engineering with an emphasis in structures. A course in bridge design got me "hooked." I have worked for a steel fabricator, county engineer, planning organization, and several consulting engineers. Most of these jobs were focused on transportation and bridge design or construction. I have always had an affinity to history, so I combined the two and got involved in historic bridges. While working for the county engineer, I read the periodic publication published by the County Engineer's Association of Ohio, where articles written by a historian (David) kept my interest in historic bridges. Most of the work I have done was to design *new* bridges, as opposed to rehabbing and restoring old ones. However, I've had the opportunity to work on four covered bridge restoration projects and one minor repair. I worked on the restoration for Engle Mill Road CB (OH/35-29-15), Stevenson Road CB (OH/35-29-15) and the Ballard Road CB (OH/35-29-18) in Greene County; the Otway CB (OH/35-73-15) in Scioto County. The minor repair was to a vertical from an overloaded vehicle on the Eldean CB (OH/35-55-01) in Miami County. With the restorations, I was able to work with and be mentored by James Barker, PE from Indiana, who is a leading expert in covered bridge restorations in the nation.

Funding priorities were not aimed at keeping old structures but rather replacing them due to deterioration. Or they weren't able to support a full legal load, or the old trusses are not wide or high enough to allow the farmers to move their equipment without a long way bypass. All government agencies are driven on politics, so if a bridge was an impediment, then it was replaced. When the Transportation Bill included funding specifically for covered bridges, that inspired me to assist some counties to look at their covered bridges and consider applying for this funding to facilitate restoration. This led my interest in rehabilitation and restoration of other types of historic bridges. I became involved in OHBA because of its pursuit in the preservation of all Ohio historic bridges.

I would like to make our webpage more visible to the public by promoting it on Facebook and Twitter. There is a big group of covered bridge enthusiasts in Ohio, so I would like to encourage them to participate in our bridge tours. Since my background is more technical, I would like to add a number of technical articles aimed at a general audience, so all can understand which trusses were more efficient than others, or why we went from timber to either concrete arches or metal trusses to steel and concrete beams. It is also important to focus on the aesthetics of structures.

If you have any thoughts regarding the organization, please reach out and contact me. I'm looking forward to leading this group and hope to help it grow as Miriam Wood, David Simmons and others have led the way.

Doug Miller, PE  
President

### Bridge Research Challenges

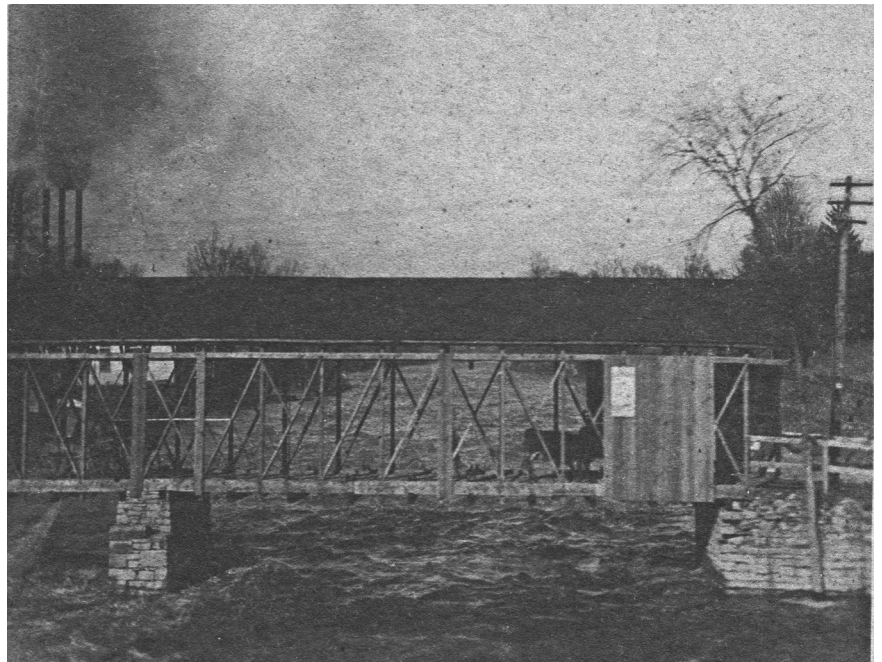
This newsletter introduces a new column featuring historical treatments of Ohio bridges. Writing these stories often involves curious research twists and turns, and, in this case, I wanted to share them.

A family of bridge builders operated in Delaware County during the half century stretching between the 1830s and 1880s. Altogether, the father, David T. Sherman, and his sons—in particular Everett—built 25 covered bridges for the county commissioners before 1886, an average of one every two years.

Among these bridges was a three-span Long-type truss built in 1852 over the Olentangy River south of Delaware at Stratford upon existing abutments and piers from an earlier turnpike bridge. Its site is adjacent to the modern SR 23 bridge, and nearby are the Meeker House and Barn at Stratford, former home to the famed Garth Auction House, now owned and operated by the Delaware County Historical Society.

The Stratford Covered Bridge (OH/35-21-26x) was a remarkable structure, with very full specifications outlined in the county commissioners' journal. Two-dozen 63-foot timbers were specified for the top and bottom chords. To help you visualize that length, think of a bowling alley lane. Half of these timbers of "good white pine" were 12 inches deep (for the lower chord), so you can imagine the size of the original standing trees. They contrast with a bridge Sherman built for the county only 7 years later (1859) that required much shorter lengths for the lower chord that were to be "locked together." Extensive railroad construction—which would have been able to transport large timbers—occurred in Ohio during the 1850s, but Stratford was built early enough in the decade that Sherman likely obtained the specified timbers locally. But it's startling to realize that within that same decade, local Delaware County forests could no longer supply timbers like those specified at Stratford.

The detailed specifications lead to the assumption that Long trusses were used at Stratford. But in recent years, a 3.5 x 4 inch, cyanotype cabinet card turned up in the Todd Clark Collection that documented the truss type. According to a handwritten note on the back, Thomas E. Howald took it while he was crossing the Olentangy River in an electric railway car. Howald was a farmer living east of Prospect, Ohio, and later moved into the village where he served as village clerk. The interurban Columbus, Delaware & Marion Railway opened in 1903 and built a bridge immediately to the south of the covered bridge at Stratford. Todd Clark also searches through the newspaper database that the genealogical search engine Ancestry.com administers. Here he discovered that during a major flood on the Olentangy in 1904, much of the siding was removed from the Stratford Bridge to prevent its being washed out. So we can date the cabinet card after that 1904 flood.



**Sometime between 1904 and 1909, Thomas Howald took out a camera while crossing the Olentangy River on an interurban bridge and recorded the condition of the Stratford Covered Bridge. Todd Clark Collection**

We had long assumed that the legendary flood of 1913 ultimately swept the Stratford Bridge away. A “List of County Bridges Damaged or Destroyed by Flood March 1913” published by the state showed a total of 26 bridges in Delaware County, including Stratford, one of 13 on the Olentangy River. But Todd Clark’s newspaper research recently uncovered an article in a Hicksville, Ohio, newspaper reprinting a story from Delaware of the Stratford Bridge collapsing in 1909!

That sent me on a search through the bound volumes of the *Delaware Gazette* housed at the county historical society. I found that the county auditor advertised for a three-span, riveted steel through truss replacement of the covered bridge in February 1909. The contract was awarded in March to the Delaware Bridge & Iron Company. According to the 1908 history of Delaware County, this firm had been incorporated that same year to fabricate a rather extensive list of products. They hoped to build “steel bridges, viaducts, towers, tanks, structural steel work, store fronts, lintels, columns and re-inforced concrete.” Louis B. Denison, who was listed as a civil engineer in the 1900 census, was the president.

It was the demolition work of this firm that resulted in the accident reported on the morning of April 12. The eastern span collapsed with at least a dozen men standing on it. When the top chord was sawn through, the bottom chord was too rotten to support the span. A Columbus man working on the crew had his foot smashed and a local resident who was observing the work was slightly injured. No other injuries were reported, and the demolition work afterwards proceeded “as fast as possible.” Obviously, removing the siding may have saved the bridge from destruction in 1904, but it was only a short period before the absence of the siding resulted in serious deterioration in the lower chords.



**The Big Walnut Creek Bridge was built by the Delaware Bridge & Iron Company in 1910. According to the Bridgehunter website, this was the last known bridge built by this company in existence. Delaware County Engineer**

The stone piers in mid-stream were removed as part of a recent effort to restore the Olentangy River’s natural environs.

No photographs of this replacement bridge, only in existence for 4 brief years before being washed out, are known to exist. But the company built a similar through truss for Delaware County over Big Walnut Creek north of Sunbury, Ohio, only a year later. It too has been replaced, but the county engineer’s files include photographs that suggest the Stratford replacement likely would have been a typical Pratt truss with built-up members composed of riveted channels and bars. The only unusual detail at Big Walnut was the method of strengthening the panels on either side of the center with an additional half-diagonal, but since this span of 122 feet was longer than those at Stratford, this detail was probably omitted.

The bridge that was rebuilt at the site following the 1913 flood stood until the 1960s when the State Route 23 bypass was built around the City of Delaware. Today, only the stone abutments remain from either of these wooden and steel bridges.

**Bridge News.....Doug Miller, David Simmons, and Elma Lee Moore**

**Christman Covered Bridge (OH/35-68-12), Preble County....Doug Miller and Elma Lee Moore**

In Spring 2020, the bridge was closed to traffic because of vehicular damage. A diagonal, a king post and a section of timber bridge rail were replaced, and the racked trusses were realigned. The Righter Company of Columbus, Ohio performed the repairs. The bridge is now open to traffic. The Child's Truss spanning Seven Mile Creek on TR 142 (Eaton-New Hope Road) was built in 1895 by Everett Sherman. (Photo: Preble Co. Engineer)



**Hills Covered Bridge (OH/35-84-24), Washington County....Doug Miller and Elma Lee Moore**

A project is proposed to rehabilitate the main truss span by replacing deteriorated top and bottom truss chord members, replacing the decking, siding and roof, and resetting the pier and abutment stones. In addition, two approach spans will be removed by the county and replaced with a new steel beam with timber decking by the contractor. Bids were received on 1/11/2022; however, all bids exceeded the county engineer's estimate and will need to be rebid. An update with the rebid will be included in a future B&B newsletter. Hills (or Hildreth) Covered Bridge spans the Little Muskingum River. The Howe truss was built in 1878 and is currently closed and bypassed.

**Bell Covered Bridge (OH/35-84-12), Washington County....Doug Miller and Elma Lee Moore**

A new project is to begin soon to bypass the covered bridge by building a new steel beam with a composite concrete deck. Also, at either end of the covered bridge, asphalt parking areas will be constructed along with pedestrian railings to prevent any vehicles from entering the covered bridge. No work will be performed on the covered bridge itself. Shelly and Sands Construction was the low bidder. The Bell Covered Bridge spanning the Southwest Branch of Wolf Creek is a multiple King Post built in 1888.

**Adamsville Road Bridge Repair, Gallia County.....Doug Miller**



This is a three-span reinforced concrete through girder bridge over Raccoon Creek on Adamsville Road (CR-71). It has an unusual shape similar to a suspension bridge. This is a Standard Concrete Cantilever Bridge of ODOT and is the last surviving one in the state. Adamsville bridge was designed as a concrete cantilever to allow re-use of existing stone abutments—a way of reducing project costs. In effect, less strain was being placed on the abutments, so it was felt unnecessary to rebuild them. The project will perform needed concrete repairs with patching, several concrete beam replacements, concrete

deck replacements, construction of new full height abutments on new piles and replacement of the concrete approach railing. The Righter Company of Columbus, Ohio was the low bidder and construction is due to be completed by 8/30/2023. (Photo: Janis Ford)

**Long Judson Road Bridge Relocation from Wood County to Fayette County.....Doug Miller**

The Long Judson Road truss bridge is a partially complete success story. In 2011, the Wood County Engineer applied for federal funds to replace the bridge due to its increasing deterioration. Since it takes some time for the funds to become available, design for the replacement structure was not started until August 2014 and the Structure Type Study was completed in February 2015. At that time, the environmental work was advanced. On March 2, 2015, correspondence was initiated with ODOT by the Ohio Historic Preservation Office requesting rehabilitation or re-use of the structure rather than replacement. The request was based on several issues. Long Judson Road Bridge is

## Bridge News.....Doug Miller, David Simmons, and Elma Lee Moore

the only example of an Elkhart Iron and Steel Co. structure in the state. It is also second oldest of the six remaining Parker Pony Trusses in the state which has riveted connections, possibly making it eligible for listing on the National Register of Historic Places. This Parker Pony Truss was designed by R.M. Strohl of Clague and Strohl Company and was built in 1916 by Elkhart Bridge & Iron Company. The bridge is 102' +/- long and 16' +/- face to face of rail. On June 2, 2016, ODOT confirmed with the Ohio Historic Preservation Office that the structure was indeed officially eligible for listing in the National Register. With this determination, the plans were changed to preserve the structure and construction was delayed. In August 2018, the Fayette County Engineer committed to reuse the structure on the Western Fayette County Bike Path Project where it would cross Rattlesnake Creek near Washington Courthouse. In 2020, the project was started with truss members marked, dismantled, and shipped from Wood County to Fayette County where they are in storage until the bike path plans are completed and funding is secured. Hats are off to the cooperation of the Wood County Engineer John Musteric, PE, PS, and Steve Lubbe, PE, PS, Fayette County Engineer for committing to save, restore, and re-use this historic structure. OHBA will follow the progress of the restoration and will let members know when it is complete.  
(Photo: Doug Miller)



### Dresden Suspension Bridge, Muskingum County.....Doug Miller and David Simmons

On the morning of January 24, 2022, David Simmons and Doug Miller were notified that in the same afternoon, a public meeting was scheduled regarding ODOT's plan to remove the Dresden Suspension Bridge over the Muskingum River. Others in attendance at the "zoom" meeting were representatives of ODOT, the Muskingum County Engineer, a Muskingum County Commissioner, the Mayor of Dresden, the Superintendent of Tri-Valley Schools, and historic bridge advocates Kitty Henderson and Nathan Holth.

The Dresden Suspension Bridge was by-passed in 1989 and the only confirmed maintenance is that it was repainted in 1997. Since the time of the by-pass, deterioration has become significant near the floor beams and the bottom chord which is normal. Although the bridge is closed to all traffic including pedestrians, children from the near-by school and tourists often climb over barriers and onto the bridge which is unsafe. Three alternatives were proposed concerning the bridge: (1) restore the bridge so that it can support pedestrian traffic, (2) perform some restoration but prohibit pedestrian traffic, (3) remove the structure entirely. The least costly alternative is to remove the bridge. Any work would not occur for 3-4 years when funding is secured. As with any public meeting there is an open period for responses that will be part of an environmental report. David and Doug will be authoring a response on behalf of OHBA. You as preservationists can comment on the proposal to:

Ty Thompson, P.E.  
Planning Engineer  
ODOT District Five  
9600 Jacksontown Road SE  
Jacksontown, Ohio 43030

p) 740.323.5194  
transportation.ohio.gov

The bridge was built 1914 by the Bellefontaine Bridge & Steel Co. Clyde T. Morris, Consulting Engineer from the Ohio State University is credited with the design. (Morris was also involved with the design of the Silver Bridge over the Ohio River which collapsed in 1967.) The length of largest span is 443.0 ft. while the total length is 705.0 ft. It was added to the National Register of Historic Places on December 1, 1978 (NRHP 78002153 reference number).

## OHBA Officers & Membership Information

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(cell ) dmiller94@woh.rr.com

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740-545-6696 suechapdelaine@gmail.com

**2<sup>nd</sup> VP: David Simmons**, Ohio Historic Bridge Association, PO Box 153, Galena, OH 43021-0153 740-965-4023 (home) everetsherman1877@gmail.com

**3<sup>rd</sup> VP: Elma Lee Moore**, 4489 Choctaw Trail, Jamestown, OH 45335 937-675-9115 (home)  
elmphd@aol.com

**Treasurer: Joseph W. Charles, Jr.**, 726 Newark-Granville Rd., Granville, OH 43023-1451, 740-587-2266, jcd43023@gmail.com

**Corres. Sec'y and Historian:** C/O David Simmons at address above.

**Rec. Sec'y: Janis Ford**, 1489 Denbigh Dr., Columbus, OH 43220-2632, jford3@columbus.rr.com

**Trustees: Ken & Linda Cash**, 1657 Spruce St., Zanesville, OH 43701, 740-453-3840

**Editor of Bridges & Byways: Elma Lee Moore**, 4489 Choctaw Trail, Jamestown, OH 45335  
937-675-9115 elmphd@aol.com

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614-579-3823 phoffmannb@gmail.com

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**DUES:** Senior (age 55 and over) \$8; Student \$8; Single \$10; Family \$15; Contributing \$25; Supporting \$40; Life \$250. Annual dues include subscription to Bridges & Byways, quarterly journal of the OHBA. Dues period is the calendar year. Dues paid after October 1<sup>st</sup> cover the succeeding year. Renewal dues to be paid by 1/15.

Please fill out the membership application form below and send it with your check made out to the OHBA to **Mr. Joseph Charles at 726 Newark-Granville Rd., Granville, OH 43023-1451.**  
**Be sure to include your 9 digit zip code.**

I wish to join/renew (circle) membership with the OHBA.

My name is \_\_\_\_\_

My mailing address is \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code( 9 digit) \_\_\_\_\_

My email address is \_\_\_\_\_

My phone number is \_\_\_\_\_

Enclosed is my check made out to the OHBA in the amount of \_\_\_\_\_ for a \_\_\_\_\_ year senior/single/family/contributing/supporting/life/student (circle) membership.



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**Will the Dresden Suspension Bridge meet the fate of many other historic bridges and be demolished?  
Read the article on page 6 to see what you as preservationists can do.**