

# THE BRIDGER



The Vermont Covered Bridge Society Newsletter – Issue #87

Melanie Schropp, Editor

## Events

**Fall 2021 All Members Meeting  
Virtual Meeting Via Zoom  
November 20, 2021  
10:30 a.m.**

### Agenda

- 10:30 a.m. Sort out any technical details
- 10:35 a.m. Welcome
- 10:40 a.m. President's remarks
- 10:45 a.m. Treasurer's remarks
- 10:50 a.m. Newsletter Editor's remarks
- 10:55 a.m. Open floor
  - Board of Directors meeting ideas
  - Questions
  - Suggestions
  - Next Zoom meeting?

## Publicity Update

- Reported by Steve Miyamoto

Our Publicity Chair, Edwin Loveland, continues to recover at home from a recent health setback. If you would like to send him get well wishes, you can email Edwin at [ncassady5@gmail.com](mailto:ncassady5@gmail.com).

### Positively Vermont

Joe Nelson and Steve Miyamoto were again asked to be on the *Positively Vermont* television program in Burlington on October 19, 2021. You can follow this link

to view the program:

[https://www.vermontbridges.org/news\\_items\\_2021/vermont/positively\\_vermont\\_october\\_19\\_2021.shtml](https://www.vermontbridges.org/news_items_2021/vermont/positively_vermont_october_19_2021.shtml).

### Online Membership Applications

- Reported by Steve Miyamoto

We have advanced to the e-commerce realm. We are now accepting membership applications and donations online as well as the traditional paper application form. Here is the link: [https://www.vermontbridges.org/membership\\_paypal.shtml](https://www.vermontbridges.org/membership_paypal.shtml).

### Corresponding Secretary

Sarah Pierce has taken on the role of corresponding secretary, in addition to being the recording secretary. We thank Sarah for taking on this additional responsibility.

## Membership Update

- Reported by Dan Monger, Chair

For those VCBS members who are receiving this newsletter with the mailing label marked in red, this indicates that you are behind in your membership dues. Membership fees are due in January. Annual members who are more than one year behind in their dues need pay only for the current year to return to good standing. Members who do not respond will unfortunately be purged from the membership list. We are very sorry to lose them as members.

**President:** Joe Nelson, P.O. Box 267, Jericho, VT 05465 email: [jcarlnelson@yahoo.com](mailto:jcarlnelson@yahoo.com)

**Vice President:** Steve Miyamoto, 8 Ridge Rd., Essex Junction, VT 05452, email: [spmiyamoto@comcast.net](mailto:spmiyamoto@comcast.net)

**Secretary:** Sarah Pierce, 49 E. Cottage Ave., Millersville, PA 17551, email: [srahpierce@yahoo.com](mailto:srahpierce@yahoo.com)

**Treasurer:** Dan Monger, 148 Otter Creek Hwy., New Haven, VT 05472, email: [teelmonger@ptd.net](mailto:teelmonger@ptd.net)

We now have 152 members, including:

- 1 Student
- 48 Individual Yearly
- 26 Family Yearly
- 45 Single Lifetime
- 29 Couple Lifetime
- 3 Business, Organization, or Municipality

Of our membership, 71 (46.7%) are residents of Vermont, 22 (14.4%) are residents of other New England states, 58 (38.2%) are residents of states outside of New England, and 1 (.7%) is international.

**The VCBS wishes a very happy birthday and happy anniversary to:**

### December

- 01 Terry and Jane Shaw
- 06 Priscilla O'Reilly
- 20 Lyn Whiston
- 22 Richard Davis
- 23 Ed Barna
- 24 David and Marikka Guay
- 25 Ann Ovitt
- 26 Virginia Brackett

- 27 Dan Brock
- 27 Steve and Susan Miyamoto
- 30 Gloria Davis
- 31 Janet Bramhall

### January

- 12 Jim Patch
- 15 Dan Castellini

### February

- 02 Bill Caswell, Jr.
- 05 Carol Robb
- 07 Richard Cyphers
- 12 Joe and Ruth Nelson
- 12 Bob Cassidy
- 14 Richard Howrigan
- 24 John Weaver
- 26 David Guay

*Please note: If I have neglected to include anyone, please send me an email at [teelmonger@ptd.net](mailto:teelmonger@ptd.net).*

## **Vermont Covered Bridge Society**

### **Fall 2021 All Members Meeting**

### **Virtual Meeting Via Zoom**

Saturday, November 20, 2021

The fall All Members meeting of the Vermont Covered Bridge Society was held virtually, via Zoom, on Saturday, October 20, 2021.

Nine people were in attendance when Vice President Steve Miyamoto called the meeting to order at 10:00 a.m. by thanking members for attending.

Dan Monger asked the status of in-person gatherings in Vermont, and previous meeting locations were discussed. Steve provided information on the current status of the Vermont self-imposed moratorium on public gatherings. He believes all official restrictions have been lifted and individual locations have each established their own

guidelines. Liam McKone offered a location at Brewster River Campground near Jeffersonville for spring/summer meetings.

Bill Caswell gave an update on the Sanborn Bridge. All Lyndon-area bridges are being assessed before grants are prepared. Dan asked about the possibility of passing ownership of the bridges to the state. It doesn't seem that the state is interested in assuming ownership.

### **MEMBERSHIP COMMITTEE REPORT**

- Reported by Dan Monger, Chair

Dan reported that the number of members consistently remains around 150, with

approximately half of the members residing in Vermont. About half of our members are lifetime members, who no longer pay annual dues.

## TREASURER'S REPORT

– Reported by Dan Monger, Treasurer

Dan reported that we are solvent, ending October with \$15,500. Our income was \$3,700, with expenses of \$1,500. We experienced a \$2,750 net gain due to donations. Our largest expense last year was a \$5,000 gift to the town of Belvidere for the Morgan Bridge.

Steve reported that the online membership option is up and running. The cost of membership is a little higher online to incorporate the small PayPal administrative fee.

Liam McKone inquired about the status of our non-profit designation. Dan reported that in advance of finalizing the online membership using PayPal, he had recently confirmed with the IRS that we are still a 501(C)(3) organization.

Newsletter Editor Melanie Schropp discussed *The Bridger*. She invited members to share articles and/or photos of interest to other members. She explained that the quarterly newsletter is limited to 12 pages due to postage. She also encouraged members to contact her with their thoughts about how the newsletter is structured and suggestions for improvement. Dan asked for clarification on seeking permission to publish photos taken by others. Melanie explained that permission is needed to that credit can be given to the photographer. Richard St. Peter offered blanket permission for the VCBS to use his photos. Dan asked what percent of space in the newsletter is available for members' articles. Melanie explained that each issue is different and that timely articles are given preference. Other articles are worked in as space is available and may be held for a future issue. Richard St. Peter said he has liked the layouts of his submissions and photos.

Since Joe Nelson hasn't yet been able to join the meeting, Steve shared that Joe is seeking agenda

items for the upcoming Board of Directors meeting. Items can be emailed to Joe.

Steve asked members for their thoughts on the Zoom format. Bill Caswell reported that the national society met outside in the warm weather, and now they are meeting virtually. One of the benefits they have seen with Zoom meetings is the availability for more out-of-state members to attend. Dan expressed concern that older members of our society may not have the technical equipment or ability to utilize the technology. Bill discussed how the national society also held hybrid meetings, where people could meet in person, while the technology was present for others to participate virtually. Steve agreed that it is a balancing act.

Joe Nelson has joined the group. He said it would be great to get together in person again. He would like to see the format go back to the way it was done in the past, with more time to interact with each other. Maybe committee reports could be emailed in advance. He explained that meetings used to include time for members to bring and share their hobbies and even offer hand-made items to be auctioned for the Save-A-Bridge fund.

Joe reiterated his need for suggestions from our members for the upcoming Board of Directors meeting on the direction you would like the VCBS to head in the next year. Suggestions and ideas can be emailed to Joe at [jcarlnelson@yahoo.com](mailto:jcarlnelson@yahoo.com).

Dan asked Steve and Bill to discuss their thoughts on increasing membership with technology instead of paper. Bill reported that the national society's membership stays relatively constant at around 400 members. Approximately half of their money comes from PayPal.

Dan talked about the link between our membership and the 251 Club. The VCBS is linked to history, but history doesn't seem to be appreciated. He expressed his concern that a national movement is attempting to erase history. Other members agreed that a similar movement seems present in their states. Liam McKone said he would be leaving

the meeting, since it seemed to have become a political discussion.

Mike Santosusso said he noticed on a recent visit to Bennington that the Covered Bridge Museum was closed. He asked if anyone knew why. Steve explained that the museum had been donated to Southern Vermont College, but that the owner is attempting to legally regain ownership.

Richard St. Peter asked about the status of damage to the Depot Bridge near Pittsford. There was some discussion, but no member had recent information. Dan asked Bill to talk about how Canada installed steel buttresses to protect their covered bridges from oversized vehicles and if this might be something for Vermont to consider. Bill explained that, unlike Canada, we have national laws that require breakaway posts to minimize damage to vehicles. There was some discussion about what other states have tried.

There was more discussion about the formats of our future in-person meetings. Joe talked about how the society used to meet at the Grange in Lyndon, and they would cook for us. He would like to see more of that and expressed our need for an Events Chair. There was discussion about options for someone to do this work. Richard suggested that a different event coordinator be responsible for each event. Joe agreed that asking one person to handle all events could quickly lead to burnout. Everyone agreed that, either way, members would also be needed to volunteer their assistance.

New member Mike Santosusso talked about taking on the challenge of visiting all Vermont covered bridges in a year. He rode his motorcycle around the state and met the challenge.

There was discussion about the new federal infrastructure bill. Can someone lobby for Vermont's covered bridges to receive some of those funds?

Mike asked if something can be done to protect the decks of bridges that are vulnerable to damage from snowmobiles. Bill Caswell explained that some other states install an extra layer of decking boards that

can be replaced after a few seasons without the original bridge deck being damaged.

Steve asked for thoughts on future Zoom meetings. Joe suggested another meeting in January before the Board of Directors meeting. There was discussion about the technical issues with the Zoom link in the email for today's meeting. Steve will research the problem.

Steve Miyamoto adjourned the meeting at 12:00 p.m.

- minutes respectfully submitted by Melanie Schropp

**VCBS Treasurer's Report 1/1/21 – 10/29/21**

**INCOME**

Donations	\$2,752.00
Dues	965.00

<b><u>TOTAL INCOME</u></b>	<b>\$3,717.00</b>
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**EXPENSES**

Communications Committee	
Postage	\$280.40
Printing	454.50
Purchases	230.14
Communications Total	\$965.04
Publicity Committee	
Printing	\$531.00
Board of Directors	\$0.00
Office Administration	\$0.00
Membership Committee	\$0.00
Bridge Watch	\$0.00
Events Committee	\$0.00
Historical Committee	\$0.00
Legislation Committee	\$0.00

<b><u>TOTAL EXPENSES</u></b>	<b>\$1,496.04</b>
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<b><u>NET GAIN</u></b>	<b>\$2,220.96</b>
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Union Bank Checking Statement for VCBS as of 10/29/21 = \$15,460.69

**NOTES:**

Cash account, no fees charged  
VCBS is a 501(C)(3)

## In Memorium

**Ellen (Ellie) Ruth Everitz**, age 89, passed away peacefully and with dignity on November 15, 2021, at the McClure Miller Respite House in Colchester. Ellie was born on October 22, 1932, in Cambridge, Massachusetts, and her family moved to Burlington in 1940. She graduated from the Burlington Business College and went to work for the U.S. Immigration Service. She retired on October 31, 1987, after 30 years of service.

Ellie was a member of the Chittenden County Business and Professional Women's Club, the Chittenden County Historical Society, the Vermont 251 Club, the UVM Home Demonstration Club, and the Green Mountain Folklore Society. She was a life member of both the National Society for the Preservation of Covered Bridges and the Vermont Covered Bridge Society. She served the VCBS for many years as publicity chair.

Ellie loved Vermont and was fascinated by the interesting facts she learned about her adopted state. She traveled extensively throughout the state, focusing on the scenery, special attractions, and covered bridges.

Online condolences can be sent to her family at: [www.readyfuneral.com](http://www.readyfuneral.com).

## Bridge Watch

### Red Covered Bridge [45-08-11]

By Catherine Judkins

The Red Covered Bridge near Morristown was damaged by an oversized truck. Witnesses saw a Lowe's truck drive through the bridge and cause damage to the overhead beams. The bridge seems fine structurally, with only minor damage. The police were contacted to report the incident.



Red Covered Bridge, photo by Catherine Judkins

## Town Expresses Interest in Sanborn Bridge

By Paul Hayes, Staff Writer, *Caledonian Record*, 11/16/21 – article and photos reprinted with permission

LYNDON – The Select Board has expressed interest in acquiring the Sanborn Bridge.

Last week they directed Planning Administrator Nicole Gratton to contact bridge owners, Arthur and Jeanne Elliott, and gather more information on purchasing the historic span.

Why buy the bridge? It would boost a grassroots effort to turn the town's five covered bridges into economic engines.

That initiative – led by Gratton and Sarah Lafferty, the president of the Lyndon Area Chamber of Commerce – would promote and preserve the historic spans. Through a lot of work and some creative thinking, they believe the bridges can help to invigorate tourism and culture.

The Sanborn Bridge is key to those plans, Gratton said.



Sanborn Covered Bridge, *Caledonian Record* file photo



*Sanborn Covered Bridge, Caledonian Record file photo*

Located downtown and closed to traffic, the Sanborn could be paired with parking, retail, tourism info and pedestrian amenities.

In addition to being noteworthy – it’s one of the last Paddleford truss bridges in the Twin States – it can be accessed through municipal land. The town owns .86 acres to the south of the bridge.

Permissions have been granted to remove a tree next to the bridge, to prevent damage and improve visibility.

Acquiring the Sanborn Bridge would be part of a larger effort.

Gratton and Lafferty are in the process of collecting information and seeking out grant funding to address the five bridges (Chamberlain, Miller’s Run, Randall,

Schoolhouse and Sanborn.) It’s the second-most covered bridges in a Vermont community after Montgomery, which has six.

The Chamber of Commerce has commissioned a study to determine the structural needs of the five bridges.

Meanwhile, there are multiple grants in play.

The Kingdom Trails Association recently awarded a \$2,500 mini grant to paint Schoolhouse Bridge, place holiday wreaths on all bridges, and install interpretive signage at Miller’s Run, Schoolhouse, and Sanborn Bridge.

Meanwhile, Gratton is preparing grant applications for a Vermont Arts Council “Animating Infrastructure Grant” (up to \$15,000) to support an art installation at Schoolhouse Bridge and the Preservation Trust of Vermont’s “Bruhn Revitalization Grants” (increments of \$50,000 and \$100,000) to address the Sanborn Bridge.

The Preservation Trust of Vermont could also provide funding through the Freeman Foundation (up to \$50,000.) Those funds are awarded and no application is required.

What’s more, the Chamberlain Bridge is monitored by VTrans and improvements may eventually be funded through the Town Highway Bridge Program, which would require a 10 percent local match with no project cap. The town will reach out to VTrans to determine if the bridge is on the state’s project list.

## Jericho Underhill Park District Announces Covered Bridge Update



*Mill's Riverside Park Bridge [45-04-B], submitted by Joe Nelson*

Livy Strong, Chairperson of the Jericho Underhill Park District, announced the updating of the covered bridge serving the Mills Riverside Park, “The company, Blow and Cote, Inc., was awarded the bid to remove the bridge roof and walls and to install safety handrails. This deconstruction will be accomplished before Thanksgiving. Handrails should be going up [soon] with no bridge closure. The Park District will update our community with a date for the removal of the walls and roof as soon as possible. [The] bridge work should only inconvenience park visitors for about half a day.

“The next step in the reconstruction of the covered bridge will take place once funds are secured. The Jericho Underhill Park District is waiting to receive the anticipated cost of adding a new roof and walls and possibly installing new abutments. It may take several years to raise the funds necessary through a possible bond issue and fundraising to complete the bridge reconstruction. The final product will be a covered bridge looking very much like the original one that we have all become familiar with. However, it will more accurately reflect the traditional truss construction commonly used in covered bridge building instead of simple wall boards with a corrugated metal roof.

“Our covered bridge at Mills Riverside Park offers a rustic entrance to a spectacular property. Since the 1960’s, this bridge has been the only way to access 216 acres of open meadow and forested hillside. Today, up to 460 park visitors cross this span daily.

The goal of the Jericho Underhill Park District is to make sure that the covered bridge continues to greet park enthusiasts for generations to come. Please contact the Park District at [jupdistrict@gmail.com](mailto:jupdistrict@gmail.com) or 802-899-2693 with any questions.”

The Mills Riverside Park Bridge is listed in *Romantic Shelters*, a supplement to *The World Guide to Covered Bridges*, published by the National Society for the Preservation of Covered Bridges. It is described as being built in 1927, 37 feet long, on stringers. It’s registered with the world guide number 45-04-B, 45 being Vermont, 04 being Chittenden County. The letter designates it a Romantic Shelter, the letter capitalized means that it supports highway traffic. Romantic Shelters are built out of love for their historic ancestors and love for the places they enhance. – Joe Nelson

## Crossing the Connecticut

by Joseph C. Nelson

The Vermont-New Hampshire state line follows the west bank of the Connecticut, known to the native peoples a *kwini-teguh*, “the long river.” King George III established the boundary in 1764 as New York’s eastern border, making the New Hampshire governor’s land grants west of the river null and void.

Despite the Revolutionary War and Vermont’s becoming a state, the border remains where the king put it more than two centuries ago. Because of the king’s order, the western abutments of the Connecticut River bridges sit “just barely” in Vermont, and the only way to cross the Connecticut is on the New Hampshire bridge.

According to Richard Sanders Allen in his *Covered Bridges of the Northeast*, “At one time there were 35 covered highway and railroad bridges across the Connecticut between its source in the lakes of Pittsburg, New Hampshire, and the Massachusetts line at Hinsdale. As of June 1, 1957, there were five covered bridges spanning the Connecticut River in Vermont.”

Today, only three of the 35 bridges remain – at Lemington, Lunenburg, and Windsor. There would be four, but a storm that passed through Newbury, Vermont,

in 1979 took down the Bedell Bridge. A resident recalled that a freak wind destroyed the bridge and then took off the roofs of the barns on a neighboring farm. The destruction occurred shortly after the state of New Hampshire had spent \$250,000 on restoration. Visitors to the Bedell site will find only the old tollhouse – now a private residence – the bridge abutments, and a monument.

The northernmost covered bridge – the Columbia at Lemington – is within thirteen miles of the Canadian border; the southernmost stands more than 100 miles south in Windsor.

### Lemington

New Hampshire Governor Benning Wentworth granted Lemington town to Samuel Averill and 63 others in 1762. Apparently, industry there had a slow start. According to the *Vermont Historical Gazetteer*, a gristmill wasn’t built until 1810. Prior to that year, the settlers had to carry their grain 25 miles to Guildhall to be ground. Dependent primarily on agriculture and forest-related industry, the area remains rural. The 1990 census found only 102

people living near the Vermont end of the Columbia Bridge.

## Columbia Bridge – 1912 [29-04-07/45-05-02]

The northernmost covered bridge crossing the Connecticut River from New Hampshire to Vermont is the 146-foot Columbia Bridge, named for Columbia, New Hampshire. It stands just a few feet from the east side of Vermont Route 102.



*Columbia Bridge, photo by Joe Nelson, 1997*

This is the third bridge on this site, built in 1912 by Charles Babbitt, using the Howe truss. The first bridge was lost to a storm; the second was set afire by a spark from a railroad locomotive.

One might wonder why the state of New Hampshire would build bridges in this out-of-the-way place. There has never been much population here and no connections to commercial centers. The incentive was the wealth of Vermont's northern forests. New Hampshire's mills gained access to Vermont timber and created jobs in the mountains and at the mills. The economies on both ends of the bridge have been linked from early times.

You won't find many Howe trusses within Vermont, only in Stowe's Gold Brook Highway Bridge and in the retired Rutland Railroad Bridge in Shoreham. Patented by William Howe in 1840, it was the first truss to be designed using mathematical stress analysis. It was adopted by the railroad industry to become one of the most widely used trusses for railroad bridges.

## Lunenburg

Lunenburg was first settled circa 1768. Townspeople found Neal's Brook, Catsbow Brook, and Mink Brook to be good millstreams, and the Alluvial Valley offered superb farmland. Many mills were located there, giving rise to a forest products industry in addition to the agricultural activity.

## Mount Orne Bridge – 1911

[29-04-08#2/45-05-03#2]

Charles Babbitt built the 267-foot Mount Orne Bridge for a cost of \$5,000 in 1911, using William Howe's truss. Mr. Babbitt built the Columbia Bridge at Lemington the following year using the same truss. The longer Mount Orne Bridge uses a mid-stream pier.



*Mt. Orne Bridge, photo by Joe Nelson, 1997*

You may notice new wood in the structure of the bridge, notably at the New Hampshire end. Two 16-wheelers have entered the bridge – the first on June 9, 2006, and the second on May 26, 2010.

The first of the two burst through the portal framing and stopped. Engineer Sean James of Hoyle, Tanner, & Associates, reported that the damage was not unlike that caused by a truck striking the bridge in May 2005. "This truck...looks like it may weigh more than six tons. A lot more," he said facetiously. The bridge signage states the weight limit to be six tons, and the entry height limited to 12 feet, 11 inches.



The second tractor-trailer actually made it all the way through. The driver had driven the truck cross country from Sun Valley, California, to Maine and was returning to California. The driver commented, "This was the way my dispatcher told me to go." A Lunenburg resident saw the truck stopped on the highway with the driver picking pieces of wood from it. A Gilman, Vermont, constable arrested the driver, charging him with conduct after an accident, failure to display trailer plates, and for the truck being over height.

Engineer Robert Durfee, of Dubois & King, reported, "The upper lateral bracing and some truss chords took some very big hits. It appears the truck just kept going through the entire bridge, causing damage all along its length. Repairs were initiated that preserved as much of the original bridge fabric as possible."

The town selected Barns & Bridges New England as the contractor to make the repairs. "We tested the existing timber used on the bridge and found it to be Southern Pine. We installed all replacement members and truss repairs using Southern Pine Dense Select Structural Grade," said Tim Andrews, President of Barns & Bridges.

Field observations by the New Hampshire Department of Transportation and Dubois & King discovered decay in the truss connections and up to 4" of sag in the trusses on the Vermont side. It was determined that these problems were not caused by the truck collision. The town obtained grant money for a complete rehabilitation of the bridge prior to its reopening on February 11, 2011.

The Mount Orne, or Lunenburg to Lancaster, Bridge is located just south of a bend in the river. The view to the north may be among the most beautiful along the Connecticut River Valley. The tree-lined stream winds through rich bottomlands among low, rolling hills, with the mountains of New Hampshire looming in the distance.

The bridge is found on East Concord Road, about one mile south of where the road leaves Route 2. The junction is approximately 20 miles east of the I-93

clover, or 1.5 miles east of Lunenburg, where Route 2 bends north.

## Windsor

Windsor is called "The Birthplace of Vermont," for it was here on July 2, 1777, that the constitutional convention was assembled to form the state.

Named for John Stuart, Earl of Windsor, the town was chartered on July 6, 1761, under the seal of the Province of New Hampshire, signed by Governor Wentworth. Then, the King's Order of 1764, locating the eastern boundary of New York on the west shore of the Connecticut River, nullified the New Hampshire land titles. In 1772, Colonel Nathan Stone obtained title to the township from the province of New York, together with recognition of the land titles of the New Hampshire grantees.

On July 8, 1777, during a violent thunderstorm, and while the Revolutionary War was raging, the constitution of a new republic was adopted by delegates meeting in Elijah West's tavern, now known as the Old Constitution House. The name *New Connecticut* was considered, but the delegates who favored *Vermont* – fractured Latin or French for "Green Mountains" – won the day.

The Connecticut Congress refused to recognize the new state because of New York's claims to the territory. Vermont remained an independent republic until it paid a settlement of \$30,000 to New York in 1791. Vermont became the 14<sup>th</sup> state to join the Union.

## Cornish-Windsor Bridge – 1866

[29-10-09#2/45-14-14#2]

An historic marker stands on the New Hampshire side of the Cornish-Windsor Bridge. It says, "Cornish-Windsor Bridge. Built in 1866 at a cost of \$9,000, this is the longest wooden bridge in the United States and the longest *two-span* covered bridge in the world. Bela J. Fletcher (1811-1877) of Claremont and James H. Tasker (1826-1903) of Cornish built the fourth bridge at this site, using a lattice truss patented by architect Ithiel Town in 1820 and 1835. Built as a toll bridge by a private corporation, the

460-foot span was purchased by the state of New Hampshire in 1936 and made it toll-free in 1943.”

The first bridge, built in 1796, was lost to a freshet in 1824. The second bridge disappeared downstream in the spring of 1849. The third was lost to the flood of March 1866.

The builders laid out the new bridge in a meadow near Bridge Street in Windsor, using Ithiel Town’s plan, but building the lattice with squared timbers instead of plank.



*Cornish-Windsor Bridge, photo by Joe Nelson, 1997*

Within 30 years of construction, the bridge displayed several inches of negative camber and gave off disturbing vibrations under live loads. (*A live load on a bridge is the weight of a user. Dead load is the weight of the bridge structure itself.*)

Repairs were made several times in the 20<sup>th</sup> century, mostly the addition of timber or steel plate to the chords in high tension areas, but the increasing deflection was not arrested. The bridge was closed for rehabilitation in 1987 by the state of New Hampshire, owner of 96% of the bridge. (Only 4% of the structure is located in Vermont.)

The repairs were needed to maintain the bridge’s historic form and structural system, but the bridge’s importance to local transportation meant that they also needed to meet modern engineering standards. The structure’s history of problems, engineering analysis, and experienced observation of the bridge indicated that it was overstressed by its own dead load, and that merely repairing damaged members and restoring the bridge to as-built condition would not suffice. A decision was made to use glulam

timbers, which have considerably higher design values in bonding and tension, for the chords. Glulam bolster beams were also added to support the truss under unusually heavy loads. The span was returned to service in the winter of 1989.

The reconstruction became controversial among bridge historians when the contractors opted to use modern materials, such as glulam timber. The critics accused the engineers of contempt for the methods of the old bridge builders, while the modern designers pointed out that, according to the basic principles of mechanical engineering, the old bridges should have collapsed. They had not done so, obviously, but it is understandable that the modern engineers would rather err on the side of caution.

It was an aeronautical engineer in the 1940’s who declared, according to his calculations, that “the bumblebee is aerodynamically unsound and, therefore, should be incapable of flight.” Bumblebees do fly, and old bridges still stand.

On the Vermont side, the Cornish-Windsor Bridge can be reached by turning east on Bridge Street in Windsor from Route 5. Travelers on Route I-91 should use Exit 9 and drive four miles south on U.S. Route 5 to Bridge Street.

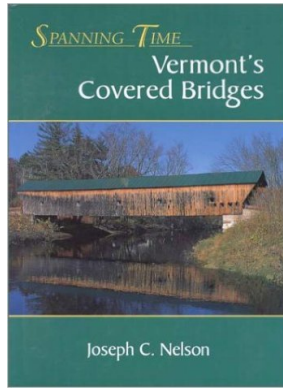
The bridge supports two-way traffic. It must handle a lot of it during the rush hours in the morning and again in the afternoon, when traffic flows almost unbroken in both directions. To see more of the bridge than a blur, avoid the rush hours.

On the Vermont side, the street is narrow, with still narrower sidewalks. Photographers should note that during the business day, there is no safe place to stand to take pictures. The approach is so narrow that the only shot that can be framed is a straight-on view of the Vermont portal. As of this writing, there is no on-street parking, and the nearest parking place is a lot in front of an American Legion hall one-half city block away. The best place from which to view the bridge is from a small parking area on the New Hampshire side.

# For Sale

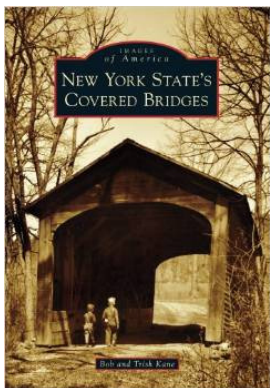
## Spanning Time: Vermont's Covered Bridges by

Joseph C. Nelson features 102 color photographs of Vermont's covered bridges in fifteen chapters, each a guided tour. The tours are complete with maps, commentary on the uniqueness of each bridge, and historic highlights about the towns and villages in which the bridges stand.



An appendix provides: A Summary of Vermont's Covered Bridges; A Covered Bridge Glossary; A Bridge Truss section, explaining how trusses work; Thumbnail biographies of people who designed and built the bridges; A Covered Bridge Reading List, for bridge and history buffs; A detailed Index. *Spanning Time: Vermont's Covered Bridges*: 7" x 10", 288 pages. Published by New England Press at P.O. Box 575, Shelburne, VT 05482. *Spanning Time* is available directly from the author for \$25.00, free shipping. For reviews of the book, go to [www.vermontbridges.com/bookreviews.htm](http://www.vermontbridges.com/bookreviews.htm). Send your check or money order to: VCBS, P.O. Box 267, Jericho, VT 05489.

## New York State's Covered Bridges - When one typically



thinks of covered bridges, New York is not the first state to come to mind, but New York once had over 300 covered bridges. Floods, fires and progress have claimed all but 32. Readers will enjoy seeing NY's current bridges, including the oldest existing covered bridge in the U.S., the Hyde Hall Covered Bridge, located in Glimmerglass State Park, and the world's longest single-span covered

bridge in the world, the Blenheim Covered Bridge, washed away by Tropical Storm Irene in 2011. This book also highlights the Theodore Burr Covered Bridge Resource Center in Oxford, NY, the first ever center of its kind specifically designed for covered bridge researchers. For a copy of the tour, contact Bob and Trish Kane, 167 Williams Rd., Sherburne, NY 13460, 607-674-9656, [bobtrish68@twc.com](mailto:bobtrish68@twc.com).

**Visions of Vermont art gallery**, Jeffersonville, Vermont at: <https://www.visionsofvermont.com/>

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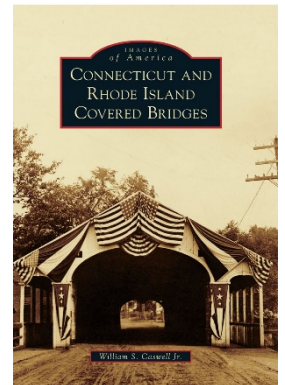
**A special sale** for the benefit of the Vermont Covered Bridge Society featuring the works of Eric Tobin. All proceeds of the unframed prints go to the VCBS. Sale of the framed prints will be shared 50/50. They are all Giclée on acid free paper. The glass is non-glare artist's glass.

- 10x12 \$125 unframed
- 16x20 \$175 unframed
- 16x20 \$550 Matted and framed
- 20x24 \$850 Matted and framed

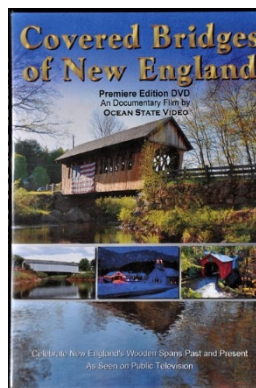


## Connecticut and Rhode Island Covered Bridges – Price reduced!

During their heyday in the mid- to late 1800s, more than 150 covered bridges dotted the landscape of Connecticut and Rhode Island. Since that time, floods, fires, and progress have claimed all but two of the historic structures. With over 200 images, this book provides insight into the covered bridge history of an area that has not been well documented in the past. To order your signed copy, send \$20.00 to Bill Caswell, 535 Second NH Turnpike, Hillsboro, NH 03244.



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