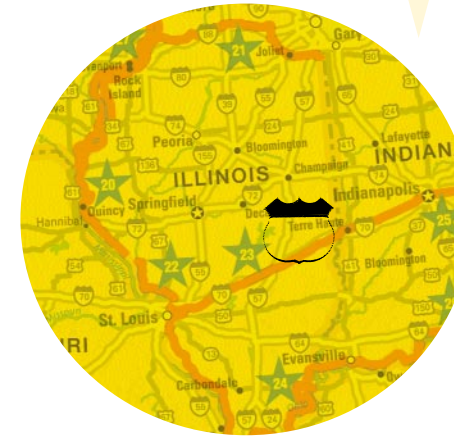




VALUING THE RESOURCE AND PARTNERING FOR SUCCESS



IN ILLINOIS, THE CUMBERLAND COUNTY HIGHWAY DEPARTMENT AND THE VILLAGE OF GREENUP WORKED TOGETHER TO PRESERVE A PORTION OF THE NATIONAL ROAD AND BUILD A REPLICA OF THE FIRST BRIDGE TO SPAN THE EMBARRAS RIVER. BY WORKING TOGETHER AND THINKING CREATIVELY, THEY WERE ABLE TO JOIN FORCES WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION TO ERECT A TWO HUNDRED-FOOT TIMBER COVERED BRIDGE AND PRESERVE A QUARTER MILE SEGMENT OF THE NATION'S FIRST INTERSTATE.

THIS ROAD STILL BECKONS the traveler as it did over a century and a half ago. The National Road Scenic Byway crosses the State of Illinois from near the Wabash River to the great Mississippi. The rolling countryside, prairie fields, and small towns along the old trail whisper to the traveler of an earlier time. Each of the seven counties along the trail has its own story. The route of the National Road is a road of history. Begun in 1811, the road linked Cumberland, Maryland with Vandalia, Illinois. Construction on the Illinois portion began in 1827.

The segment of the National Road that crosses the Embarras River once provided a critical link between the developing eastern states and the subsequent western frontiers. Cumberland County was named for the hometown of many of the early settlers from Maryland. Locally this section of the National Road is referred to as the Cumberland Road.

BYWAY LENGTH: 164.5 MILES

PROJECT:	Cumberland County Covered Bridge
BYWAY:	The National Road
STATE:	Illinois
PROJECT STARTED:	October 1998
PROJECT COMPLETED:	Fall 2000
TOTAL COST:	\$2,817,212
STATE MATCHING FUNDS:	\$ 524,399
JURISDICTIONAL TRANSFER OF STATE MAINTAINED ROADS:	\$ 542,413
FEDERAL TIMBER BRIDGE RESEARCH DEMONSTRATION PROJECT:	\$1,750,400
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Cumberland
The construction of a new bridge using a Jackson Truss structural configuration which was employed for use in the original 1830's era covered bridge





PROJECT FEATURES:

- Construction of a new bridge using a "Jackson Truss" structural configuration which was employed for use in the original 1830s era covered timber bridge that once existed at the same location
- Preservation of the original alignment of a quarter mile section of the National Road

IMPORTANT PEOPLE:

Randy Callahan
Wayne Swim
Elmer Pyle

PARTNERS

Cumberland County Highway Department
Village of Greenup
Illinois Department of Transportation

What Happened

In 1995, Randy Callahan, the Mayor of Greenup and Gary Kruger, an engineer from the Cumberland County Highway Department, met with representatives from the Illinois Department of Transportation (IDOT) to discuss the fate of the bridge carrying the National Road over the Embarras River west of Greenup, Illinois.

The bridge was in a state of disrepair. Sustained damage to the bridge's deck and pier footings compromised its functionality and safety. Concerned about the impact the potential closure of the structure would have on the local economy, a meeting was held to discuss future options. In 1996, spring flooding forced the closure of the bridge. With repair no longer an option, IDOT announced its intention to remove the bridge along with fifteen hundred feet of the adjacent road and the embankment.

Shortly after the announcement, the agency held a public hearing to provide the public the opportunity to express their views on the decision. Several residents voiced their displeasure with the proposed action. Concerns were twofold. Removal of the bridge and roadway would effectively sever the link between the western sections of the National Road and Greenup and limit local efforts to promote the area's heritage and tourism. Loss of the original alignment of the National Road would mean the loss of an historic resource of both local and national significance.

Marketing Greenup as a destination point along the National Road figured prominently in Cumberland County's plans to promote tourism. Prior to IDOT's announcement, work was already underway to restore building facades in the historic Downtown Business District. Listed on the National Historic Register, the area represented a significant local resource. Removal of the bridge and roadway would adversely affect these plans.

Willing to work with the community to develop a viable option, IDOT granted Cumberland County and the Village of Greenup two years to develop a plan to preserve the crossing and the roadway. The agency also agreed to obligate the funds that would have been used to remove the existing bridge and roadway for the construction of a new bridge based on their approval of the proposed plan.

We were given two years to come up with a plan to present to the state to replace the bridge and came up with the idea of an all-wood bridge. With the bridge completed, a section of the original National Road west of the Village of Greenup can be used again.

– Gary Kruger, Cumberland County Highway Department

Gary Kruger and Wayne Swim, a Greenup Village Trustee, had already begun thinking about what type of bridge should be built on the site. Intent to highlight the historical significance of the area and its location on the National Road, they began to explore the possibility of building an authentic replica of the covered timber bridge that had stood on the site more than a century and a half before.

Based on copies of an 1833 U.S. Engineering Corps inspection report on the National Road, it was discovered that the original bridge had been a Jackson Truss Bridge with a two hundred-foot clear span. Pending subsequent research, a copy of the patent for the Jackson Truss Bridge was located and served as a ready reference for the project.

To determine the feasibility of building such a structure, Elmer Pyle, a local structural engineer was contacted to conduct a site inspection. Convinced that the project had merit, he began preparing an initial cost estimate for the design and construction of the bridge. IDOT was then contacted, and granted the County and the Village the go ahead to begin to identify funding and develop more detailed plans.

After a bit of research, the largest share of the funding would come from a federal highway bill that made funds available for timber bridge restoration. Originally the plan had been to utilize Transportation Fund dollars to offset the cost of the project. Unfortunately the timing was such that it was too late to apply. Once again diligence and research paid off when the Timber Bridge Research and Demonstration Program was identified. This resource eventually yielded \$1,750,400 for the project.

As the project progressed, additional funding challenges arose. Thinking creatively, the County and the Village of Greenup agreed to assume jurisdiction of several frontage roads and a 2.25 mile segment of the state maintained National Road from IDOT in exchange for the shortfall.

Today, a faithful replica of the 1830s era covered timber bridge that once stood on the site spans the Embarras River. It stands as a peaceful presence amid the hardwood trees and undeveloped flood plains that surround it. Visitors and residents now have a chance to step back in time as they cross the bridge either on foot or by car. One, fourteen-foot lane accommodates two-way traffic, while two five-foot sidewalks on either side provide visitors the opportunity to closely examine the structure, take in the view, chat with other visitors and step back in time to an era when things moved just a little bit slower.

Building Support

Community support for the project was the key to its success. To bring the project to life, an artist's rendering and a scale model of the bridge were prepared to generate interest and facilitate public discussion. To illustrate the positive benefits that a new covered bridge would have on the local economy, an economic analysis was prepared by the Cumberland County Development Corporation. Based on data provided by the Illinois Department of Tourism, the analysis estimated the project would generate approximately \$1,237,000 in local business receipts each year. This study combined with the use of the artist's rendering and scale model of the proposed bridge proved effective tools in building public support for the project. According to Gary Kruger, "every individual and organization that we contacted became an advocate for the bridge." Over the course of the project, numerous presentations were made to solicit input, generate enthusiasm and provide updates on the progress of the project. During construction, the Cumberland County Highway Department in cooperation with Cumberland Internet Services installed a live web camera at the site to enable visitors and residents the opportunity to monitor the bridge's progress. The National Road Association of Illinois also documented the project by providing a link to the live camera and posting stories about the National Road on its web site www.nationalroad.org.

This project has brought together community leaders and has pointed out the successes that can be accomplished if everyone works together as a team. It has shown that we can preserve our past heritage, while preparing for future expansion. This project would not have been possible without the combined support of local, state, and national organizations. It demonstrates that anything is possible if everyone works together.

—Gary Kruger

Local citizens, the Cumberland County Highway Department and the Village of Greenup successfully partnered to prevent the permanent removal of the bridge and a section of the National Road. To support construction of the bridge, the Cumberland County Development Corporation provided analysis to illustrate the positive effects that a new covered bridge would have on the local economy. The Cumberland Historical Society, National Road Association of Illinois, and the National Road Alliance of the United States all lent a hand by presenting letters of support for the project. The Illinois Department of Transportation provided the community the opportunity to think creatively and present an alternate plan. The agency also provided and helped secure funding for the project. State legislators lent their support and assisted in securing state and federal funds. And last, but not least, Elmer Pyle of Rhutasel and Associates prepared the original cost estimate for the federal grant request and designed the final structure.

Project Benefits

Weighing in at three hundred ninety-two tons, the Cumberland County Covered Bridge is reported to be the longest single span covered timber bridge in the United States without a posted load restriction. It combines aesthetics with the practical considerations of accommodating today's vehicles. Approximately four hundred fifty cars a day cross the bridge.

While economic benefits are difficult to measure, there's been a lot of activity since the bridge's opening. Recently, a local vineyard was awarded a development grant to construct a winery overlooking the Cumberland County Covered Bridge and the National Road. The Village of Greenup is in the process of restoring eight additional facades in the historic Business District. Storefronts in neighboring towns that once stood empty are full again.

The bridge also provides a unique setting for special events. Based on the success of the project, the Cumberland County Highway Department and the Illinois National Road Association have begun to discuss the possibility of constructing an interpretive center near the bridge. It is anticipated that the site will provide visitors with an area to pull off the road and relax, walk along designated trails and learn more about both the historical and cultural aspects of the National Road.

By thinking big and preserving an important link to the past, the County has built the bridge to its future.

Lessons Learned

THINK CREATIVELY AND DON'T BE AFRAID TO DREAM.

Recognizing that the 1920 steel girded structure could not be saved, the community was diligent in its efforts to preserve the crossing over the Embarras River and the original alignment of a quarter mile section of the National Road. Rather than erect a modern structure, they rallied around the construction of a bridge that would enhance the historic significance of both the National Road and nearby Greenup.

RESEARCH YOUR PROJECT. Advocates and project principals contributed their time to research and design a unique structure. Rather than replace the bridge with a similar structure, research was conducted to locate the specifications for the bridge that stood on the site in the 1830s. To get it right, project partners traveled to and photographed the remaining nineteen Jackson



Truss covered bridges left in the United States. Sources of information on the project were diverse ranging from local libraries, to the National Archives in Washington, DC to the patent and trademark depository at the Illinois State Library.

CONCEPTUALIZE THE PROJECT. To bring the project to life, an artist's concept of the bridge, a scale model and a computer image of the model transposed on the proposed location were prepared.

QUANTIFY THE ECONOMIC IMPACT. The Cumberland County Development Corporation used data provided by the Illinois Bureau of Tourism to prepare an economic impact study. Based on the percentage of visitors currently traveling to

local attractions, it was estimated that approximately forty percent of these travelers exited off I-70 bringing them into close proximity with the National Road. Assuming one hundred visitors per day, it was estimated such a bridge would generate approximately \$1,237,000 in local business receipts each year.

TELL THE STORY AND BUILD SUPPORT. You'll never sell a project if you don't believe in and promote it yourself. To generate interest and facilitate public discussion, the artist's rendering, scale model and pictures taken of the remaining nineteen Jackson Truss bridges were included in all presentations made on the project. At every opportunity, the project partners seized the opportunity to tell the story of the National Road and the importance of the bridge in preserving and promoting the history of the byway. The project was presented to the County Board, the local Historical Society, Chambers of Commerce, Town Boards, the National Road Association and the National Road Alliance. Meetings were also held with state and local legislators to build support for the project.

CHOOSE YOUR PARTNERS. It is important to carefully choose those partners who believe in the project and have the experience and ability to facilitate the work in progress.

BUILD IT BETTER. While the current structure closely resembles a Jackson Truss bridge of the 1830s, improvements have been made to satisfy current vehicle load criteria and accommodate today's vehicles. Additionally, all of the timber in the structure was Penta-treated with the arches, beams, and chords treated prior to lamination. This process will enable the structure to be virtually maintenance free for many years. The project shows how renewable materials can be used to construct structures that meet current standards and illustrates the use of historic designs to build modern structures.

BELIEVE! ANYTHING IS POSSIBLE IF EVERYONE WORKS TOGETHER. When it became apparent that the timing of the project wasn't right to take advantage of the initial revenue source identified, research was conducted and the Federal Timber Bridge Research Demonstration Program identified. As the project progressed and budget shortfalls were identified, the County and the Village of Greenup agreed to assume jurisdiction for several frontage roads and 2.25 miles of the state maintained National Road to offset the costs.

