

IF BRIDGES COULD TALK
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If bridges could talk, what would they say? Would they discuss who designed them, who constructed them, who passed over them, the disasters they have endured, the commerce that has flowed under or over them or who has cared for them? All of this information would be interesting, but a bridge is only concerned about who has or who will care for them.

As a child, I never realized the role that bridges would play in my life. The bridges of the St. Mary's River, in Fort Wayne, from Foster Park to Swinney Park were my playgrounds.

Then I didn't know the difference between an arch, a truss, a concrete slab or a steel girder bridge they were just bridges. Today, they are a part of the reason for my professional existence, as well as becoming my avocation. A suspension bridge in Foster Park, an open spandrel concrete arch on Bluffton Road, a whipple through truss on Hale Avenue, steel beam/concrete deck on Taylor, the Pennsylvania RR bridge and a filled arch on Jefferson Boulevard, were the places I played. Little did I know crawling over, under, around and through these structures, that one day I would have a role in preserving them for future generations.

Why do we want to save these structures? First, our communities need to preserve their heritage. These structures have social significance connecting neighboring communities, states and the nation. Linking commerce and industry was vital to the economic growth of our communities and our nation. Bridges closed that gap. Transportation could not survive without bridges whether you walk, ride a bike, ride mass transit or drive a car. So the structure itself is needed for communities to survive. But again why save the old one? Build a new structure!

One reason to save the old bridge is the designers' contribution, such as A. W. Grovesnor, who designed the Tennessee Avenue, Harrison Street, Main Street and Columbia Street bridges in Allen County. He had a resounding impact on the economic and social history of Fort Wayne. One structure he designed, Tennessee Avenue, was a part of the 'City Beautiful' movement of the late 19th century. This bridge was reconstructed in 1998 and more significantly restored to its original design.

The idea behind the "City Beautiful" sociological movement was to bring nature to urban environments by adding parks and outdoor recreation areas for the working man. Grovesnor designed structures to fit in with the idea and the rivers they spanned and was nationally recognized for his efforts. Build a new structure instead, despite its' historical contribution.

The structure itself may be the last one of its type in existence, by virtue design, manufacturer or constructor. Marion Center Road in southern Allen County is an outstanding example of a whipple truss. Built by Western Bridgeworks of Fort Wayne in 1882, this bridge is the lone remaining remnant of their craftsmanship in Allen County.

The only other structure known to exist is in Madison County, Iowa. Built for \$39 per foot or \$6,825 and still in use today, this structure still serves as an example of our heritage in bridges and is an important farm to market transportation link. This structure is currently in preliminary design to be restored.

Unfortunately, few structures remain of iron bridge heritage in Allen County, most destroyed by Progress. Some have been removed during my tenure because of my ignorance of their historical significance. Many were removed in the 60's, 70's and 80's, due to influences and factors which-out weighted their historical significance, I think.

Lack of safety and serviceability caused most to be lost. Narrow, weight-restricted and difficult to maintain, most structures were in the way of progress. This denied citizens and commerce the ability to move freely. If the bridge disrupted transportation patterns, eliminating the structure was and is the easier choice. We decided that commerce was more important than engineering significance. Build a new structure.

Neglect caused others to be lost. Iron structures are difficult to maintain. Lacking knowledge of how to maintain them, we allowed them to fend for themselves. The result has been obvious, they have been lost to decay and deterioration.

Requirements of Federal and State authorities caused more historic bridges to disappear. Bridge inspections, mandated by Federal authorities, identified structures with narrow roadways, unsafe guardrails or structural deficiencies. In turn, we lost even more structures. We tend to excuse this as – we have no other choice, but we do.

Understand that what I've just stated is not an indictment but a fact. Allen County's list of historically significant bridges that have disappeared or been modified is as long or longer than yours. Hursh Road, Hale Avenue, Auburn Road, Parnell Avenue, Columbia Street, and Main Street are but a few of the many structures that have been replaced or significantly altered from their original design. So no one is or will be immune from making decisions to replace these structures based on necessity, neglect or rules and regulations.

Jim Cooper, in his two books on historic bridges, "Iron Monuments to Distant Posterity" and "Artistry and Ingenuity in Artificial Stone", identified 35 bridges with historic significance in Allen County. Jim got a late start on his research because many more of our structures were already gone, when his research began. Twenty-six of these are iron and nine are concrete. Only six iron structures are in service today along with eight of the concrete structures.

But these remaining bridges continue to ask – Why don't you preserve me? How do we answer this question? Let me give you two examples.

Two bridges, one a truss to be closed and left to die and the other a concrete arch to be replaced, gave Allen County the answer. Bridge preservation happens when three elements work co-operatively: community support, engineering support and political support. Fortunately, since 1995, Allen County has been blessed with all three.

Bostick Bridge provided one element and inspired another because a group of citizens said in a loud voice "DO SOMETHING DIFFERENT FOR ONCE." Government

is not always willing to listen to constituents, but a small but vocal group was not to be denied. They did not want this bridge closed and ultimately destroyed.

After the bridge was closed, due to a structural deficiency, the County Commissioners and our engineering staff met to determine the fate of the Bostick Bridge. The decision was close the bridge and allow it to deteriorate. Tear down the structure. However, a group of citizens had a different idea. Led by Renae Burton, this group changed the mind of the County Commissioners and forever affected the heart, mind, and soul of the County Engineer.

Bostick Bridge, Allen County Bridge #268, was a social, economic, educational and transportation link of their community and they wanted that link open. How did they accomplish this formidable task?

First, they gathered community support. Through petitions and letters to the Commissioners and then intense media coverage, the original decision was put on hold. The Commissioners requested an engineering study be conducted to evaluate the condition of the structure and recommend options for the structure's repair or replacement.

Sieco, Inc. of Columbus, Indiana conducted the study and recommended a simple but effective method of repair. Understand that the structure has a five-ton load limit, and the repair was done to preserve its historic nature and keep it open not a full restoration or rehabilitation.

The goal was to reopen the bridge to serve the community. Restoring the link between social, economic and transportation forces has had a positive influence on the neighborhood and certainly has shown the power of people joined together in a common cause. The bridge remains in service.

Element one – community support.

Wells Street Bridge, Allen County Bridge #542, played a different role. Thought to be historic because of its design and the time frame, in which it was constructed, a study was conducted to determine its significance.

Bonar and Associates was selected to do the study for this project. Since this project was being built with federal funds, a study document was required to determine whether this concrete arch could be replaced or would have to be reconstructed.

Our research found that the Melan reinforcing system was used to build the structure. However, the steel ribs had corroded so badly that the concrete was falling away from the ribs rendering the structure irreparable. A HAER document was prepared to create a record of the structures existence through narrative and photographs. However, the significance of Wells Street was not its demise but the revelation of its historically significance.

Wells Street began the era of engineering support for preservation of iron and concrete structures in Allen County. Soon after our discovery, I met Jim Cooper, whom I had considered a roadblock and obstacle to bridge management – read tear down and replacement. He enlightened us with his knowledge of the historic heritage of our bridges and the need to preserve that heritage.

Allen County currently has three historic iron bridges being rehabilitated and one in preliminary design. Two historic concrete bridges are in preliminary design. Our consultants have been directed to design structural elements to recreate the original design while using modern materials and construction methods. We are proving that historic integrity and modern science can indeed meld to produce a safe, serviceable structure to meet our transportation needs.

Element two - engineering support.

Political support is attained in Indiana from an interested and committed Board of Commissioners. We in Allen County are fortunate because our commissioners, Linda Bloom, Jack McComb and Ed Rousseau, are vocal and fiscal supporters of our bridge preservation and restoration program.

Their support has provided two sources of financing.

First – Tennessee Avenue was funded in full, along with 10 other bridges, by a \$5,000,000 bond issue in 1996. This is the largest of four bond issues done since 1982, and we anticipate an even larger effort in 2000.

Second - in 1997 the Board implemented a Major Bridge Fund. This tax levy will provide funds for the three bridge restoration projects currently in design. When fully in place, this fund will generate \$2.5 million per year.

Element three – Political Support.

Allen County has determined that bridges are not only a vital transportation link but also a link to our heritage. Our citizens, engineers and politicians are willing to do whatever is necessary to preserve a part of history for future generations.

Gustav Lindenthal said in the April 17, 1924 Engineering News Record “Bridge construction and bridge architecture will be to posterity a surer index of the progress of our present day civilization than houses, temples or cathedrals appear to us of past ages.” We will not be able to preserve them all but we can certainly make an effort to save as many as possible.

Bridges are a vital link in social, economic and transportation forces in a community. But remember they are not just iron, concrete, and steel. Bridges are a vital part of the organism, which we call a community.

If your bridges could talk, what would they say? I know what Allen County Bridges will say - you saved us. So can yours.

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