

# PROCLAMATION

**R. Benjamin Stahler**  
Mayor of Bellefontaine, Ohio

**WHEREAS**, the first concrete pavement in the United States of America was constructed along Main Street in the City of Bellefontaine in 1891, and

**WHEREAS**, the oldest concrete pavement, constructed in 1893, is still in service along Court Avenue in the City of Bellefontaine, and

**WHEREAS**, on April 25, 2016, concrete pavement technologists and concrete industry representatives from throughout the United States will be visiting the City of Bellefontaine to celebrate the 125th anniversary of the first concrete pavement, and

**WHEREAS**, the Mayor welcomes the visitors to the City of Bellefontaine and Historic Logan County, and

**WHEREAS**, it is with great pride and civic satisfaction that the City of Bellefontaine has continued to preserve the historic nature of Court Avenue,

NOW, THEREFORE, BE IT RESOLVED, that the Mayor does hereby declare April 25, 2016

**Historic Concrete Pavement Day**  
in the City of Bellefontaine

## A SPECIAL THANKS TO THESE ORGANIZATIONS FOR THEIR SUPPORT

Ohio Department of Transportation · American Concrete Pavement Association, Ohio Chapter  
American Concrete Pavement Association · National Concrete Pavement Technology Center  
International Society for Concrete Pavements

## COMMEMORATION EVENT STEERING COMMITTEE

Shiraz Tayabji, Mark Pardi, Kurt Smith, Larry Scofield, Bill Davenport,  
Daniel Miller, Peter Taylor, Tom Cackler, Denise Wagner, Amy Fimple

The Task Force on Preservation of Historical Concrete Pavement Artifacts Presents

# 125<sup>TH</sup> ANNIVERSARY COMMEMORATION

Oldest  
**CONCRETE  
STREET**  
**IN AMERICA**

**Monday, April 25, 2016**  
**Bellefontaine, Ohio**

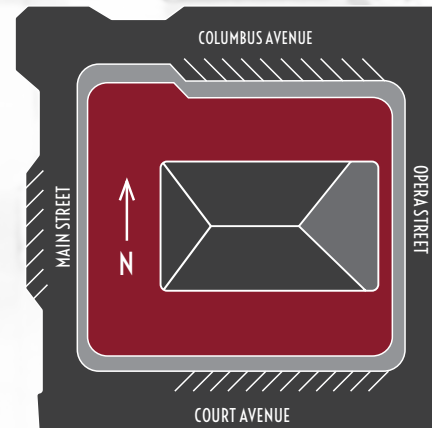


# HISTORY

**BELLEFONTAINE, OHIO** is recognized as the birthplace of concrete pavements in the United States. It was here that the pioneering work of a group of visionaries and innovators—namely Mr. George Bartholomew, founder of the Buckeye Portland Cement Company and an early leading advocate of concrete, Mr. J. C. Wonders, Bellefontaine City Engineer who later worked for the U.S. Bureau of Public Roads, and Mr. W. T. G. Snyder, a principal road builder in Bellefontaine—opened the doors to a new product and a new era of paved surfaces.

Bartholomew settled in Bellefontaine in 1886, having lived previously in Texas where he was associated with the San Antonio Cement Company. He established a laboratory in the rear of Butler’s Drug Store on Main Street, where he experimented in developing a satisfactory cement using limestone and clay from local sources. After several years of lobbying his product (referred to as “artificial stone” at the time), the City finally accepted his proposal for the construction of a short experimental section provided that he submit a \$5,000 bond and warrant it for 5 years. This original test section was placed in 1891 on Main Street in front of the Logan County Courthouse along on its west side.

After the success of the original test section on Main Street, the City contracted to pave all four streets surrounding the Logan County Courthouse. The two narrow streets, Court Avenue and Opera Street, were paved in 1893 while the wider streets,



Columbus Avenue and the rest of Main Street, were paved in 1894. Collectively, the paving done on the four streets represents about 7,700 square yards of concrete and as a group the pavements were all in service

as bare concrete through 1950 when Main Street was resurfaced due to settlement of the underlying gravel. Opera Street and Columbus Avenue were resurfaced in 1960 when a broken water main caused them to be undermined.

Currently only the 1893 pavement placed on Court Street remains in service in its original condition, with some periodic pavement rehabilitation (mainly some full- and partial-depth concrete patching) performed over the years, including in 1962, in the early 1990s, and in 2007.

Some of the design and construction characteristics of that 1893 pavement include:

- **Subgrade:** The street was excavated to a depth of 6 inches and then carefully rolled and compacted.
- **Cross section:** The slab is 6 inches thick and was constructed as a two-lift pavement, featuring a 4-inch bottom lift followed by a 2-inch top lift.
- **Joint/panel layout:** The concrete was placed in 5-ft by 5-ft blocks and tar paper was used to separate the panels.
- **Mix design, bottom lift:** The bottom lift used 1 part cement to 5 parts clean, unwashed gravel (containing about one-third sand), with a 1½-inch maximum aggregate size.
- **Mix design, top lift:** The top lift used 3 parts cement to 5 parts sand, with a ½-inch maximum aggregate size.
- **Surface:** V-shaped indentations were imparted in the pavement surface at 4-inch intervals to provide footing for horses.
- **Curing:** The pavement was cured using a 2-inch layer of wet sand for a period of one week.

The general mix and design characteristics for the pavement placed on Opera, Columbus, and Main are similar to what was done on Court Street, although some reports suggest that the later mixes were richer in cement.

The costs to construct the 1890s-era concrete pavements in Bellefontaine was \$2.15 per square yard, and over their initial 40-year period required only minimal maintenance. At the time of their construction, these streets received considerable publicity and attracted engineers from all over the country for a first-hand examination of this new paving material. A slab from the 1891 concrete was exhibited at the 1893 Chicago World’s Fair, where it was awarded a first place for Engineering Technology Advancement in Paving Materials. In large part because of the success of these pavements, the City of Bellefontaine went on to construct much of the City’s early street network with concrete.



# AGENDA

## Part One: Celebrating the Evolution of Concrete Pavements *Hyatt Regency Columbus Hotel, 1:00–2:45 p.m. with Jerry Voigt, Master of Ceremonies*

Welcome	Dan Miller, Ohio Department of Transportation
Opening Remarks	Jim Toscas, President/CEO, Portland Cement Association
Historical Concrete Pavements Explorer	Jerry Voigt, President, ACPA National
Historical Perspective: Concrete Pavement Technology Development	Mike Darter, Applied Research Associates, Inc.
Historical Perspective: Observations of PCC Performance	Roger Larson, FHWA (retired)
Historical Perspective: Iowa’s Role in Concrete Pavement Technology Evolution	Gordon Smith, Iowa Concrete Paving Association
Historical Perspective: A Contractor’s Perspective	David Howard, Koss Construction
Task Force on Preservation of Historical Concrete Pavement Artifacts	Kurt Smith, Applied Pavement Technology, Inc.
The Bellefontaine Concrete Pavement: Project Details and Highlights	Mark Pardi, ACPA Ohio Chapter, Dan Miller, Ohio DOT & others

## Part Two: Site Visit *Bus departs at 3:00 p.m.*

Site Visit: Historical Concrete Pavement Section Welcome by Honorable Ben Stahler, Mayor, City of Bellefontaine	4:00–4:30 p.m.
Reception at the Logan County Transportation Museum, Logan County History Center Welcome by Todd McCormick, Curator/Director, Logan County Historical Society	4:30–5:15 p.m.
Dinner at Der Dutchman Restaurant	6:00–7:15 p.m.
Return to Hyatt Regency Columbus Hotel	8:00 p.m.

## SPECIAL THANKS TO

Benjamin Stahler, Mayor, City of Bellefontaine, Tim Notestine, City Engineer, and Todd McCormick, Logan County Historical Society, for their unwavering support and cooperation

## BROUGHT TO YOU BY

American Concrete Pavement Association · American Engineering Testing · Applied Pavement Technology, Inc. · Applied Research Associates, Inc. · Cemex · Essroc · Forta Corp · Fugro · Gulisek Construction · International Grooving & Grinding Association · LafargeHolcim · Lehigh Hanson · Michael I. Darter · Minnich Manufacturing North S. Tarr Concrete Consulting · Ohio Concrete/OH Chapter ACPA · Ohio Ready Mix, Inc. · Portland Cement Association · Randell Riley · St Marys Cement, a Votorantim Company · The Fort Miller Company