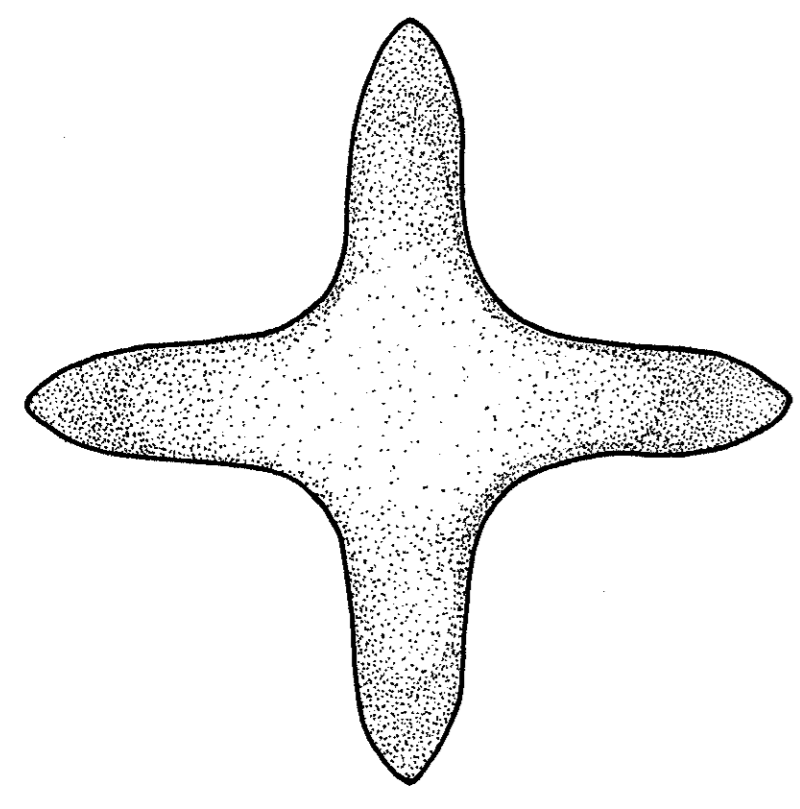


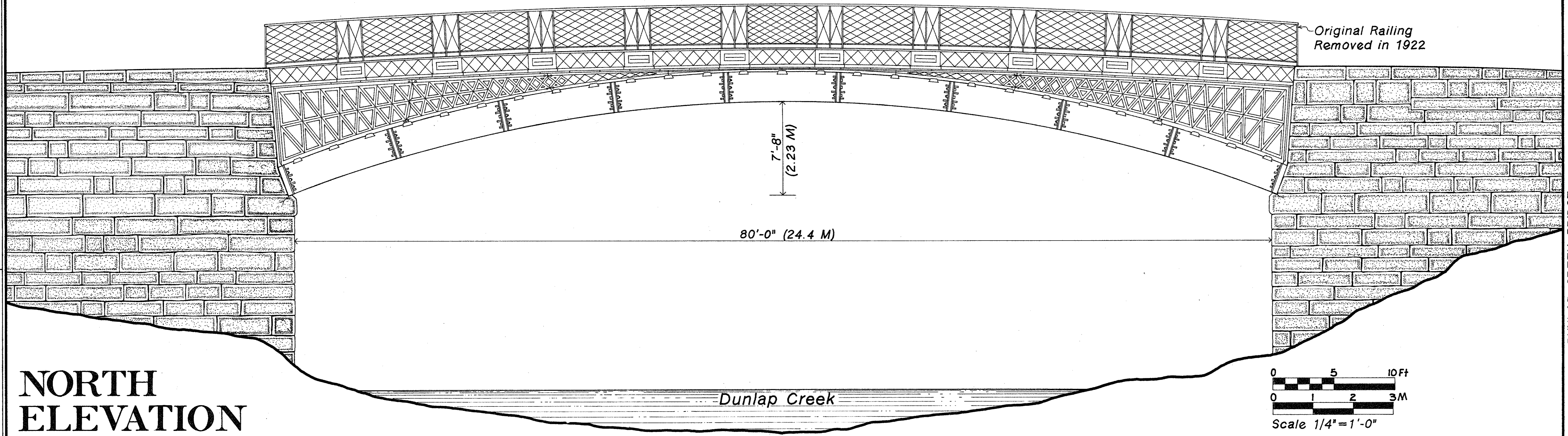
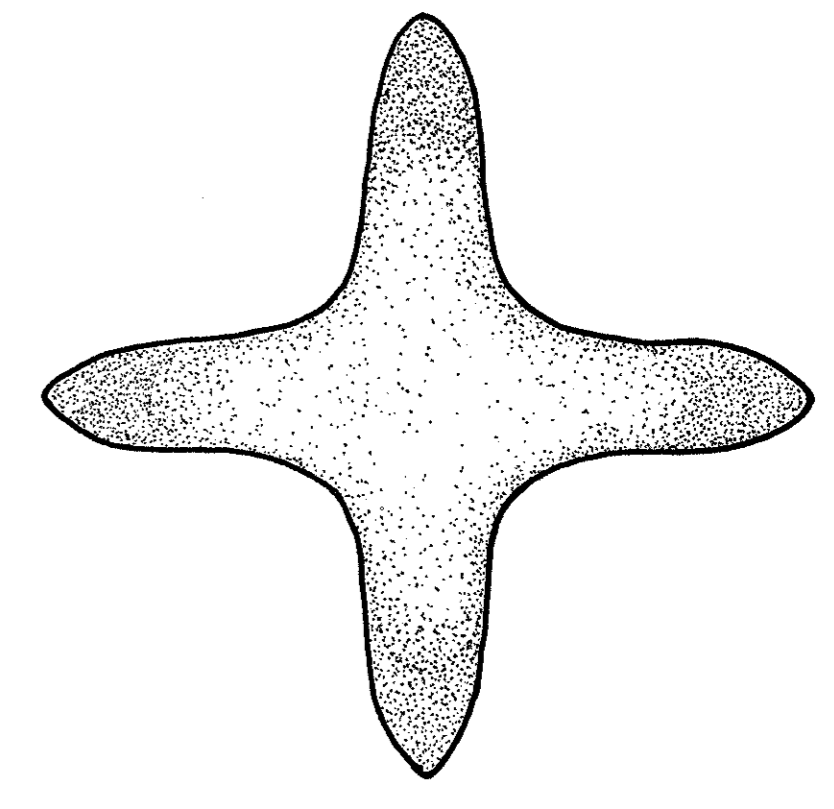
# FIRST CAST-IRON ARCH BRIDGE BUILT IN THE UNITED STATES

# DUNLAP CREEK BRIDGE

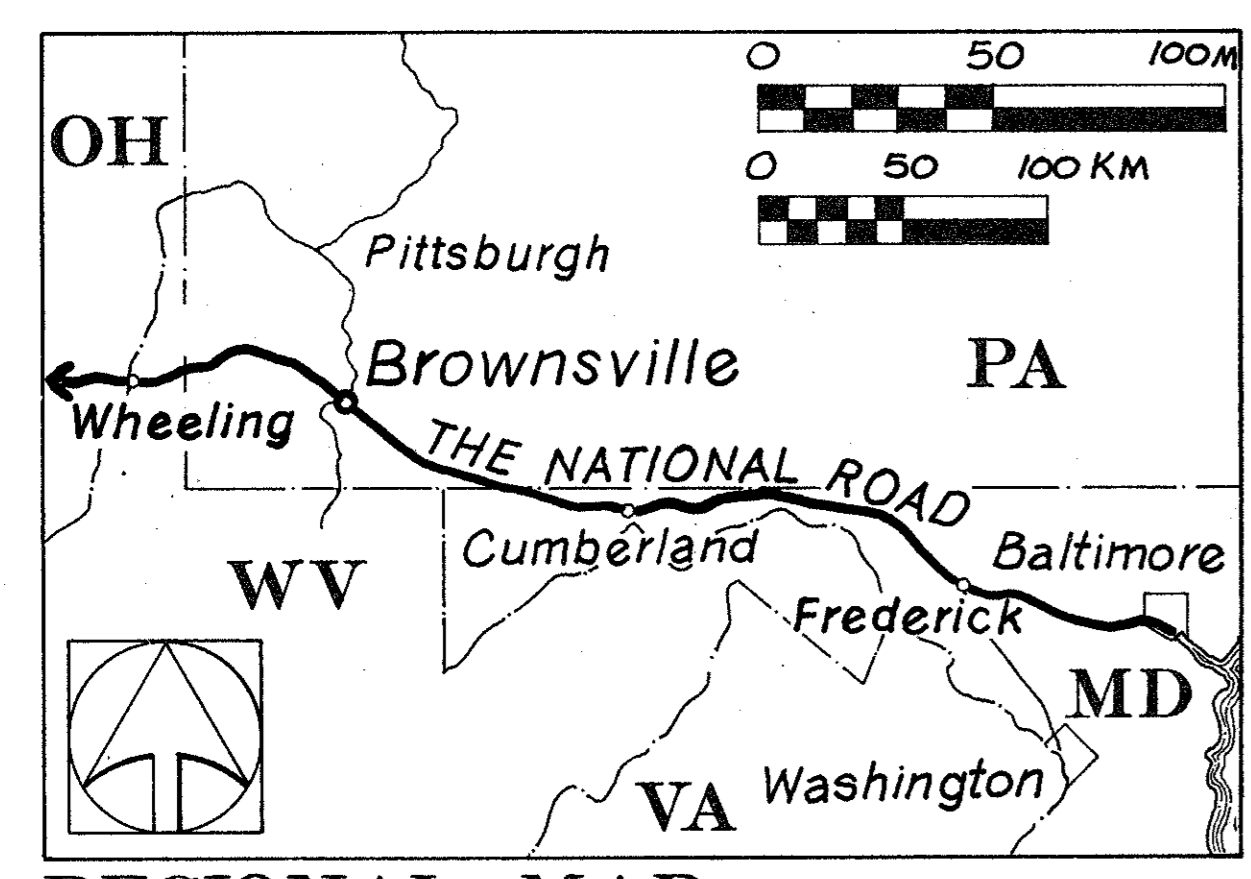
## BROWNSVILLE 1839 PENNSYLVANIA



Full-size Section of Cast-Iron Spandrel Member



### NORTH ELEVATION

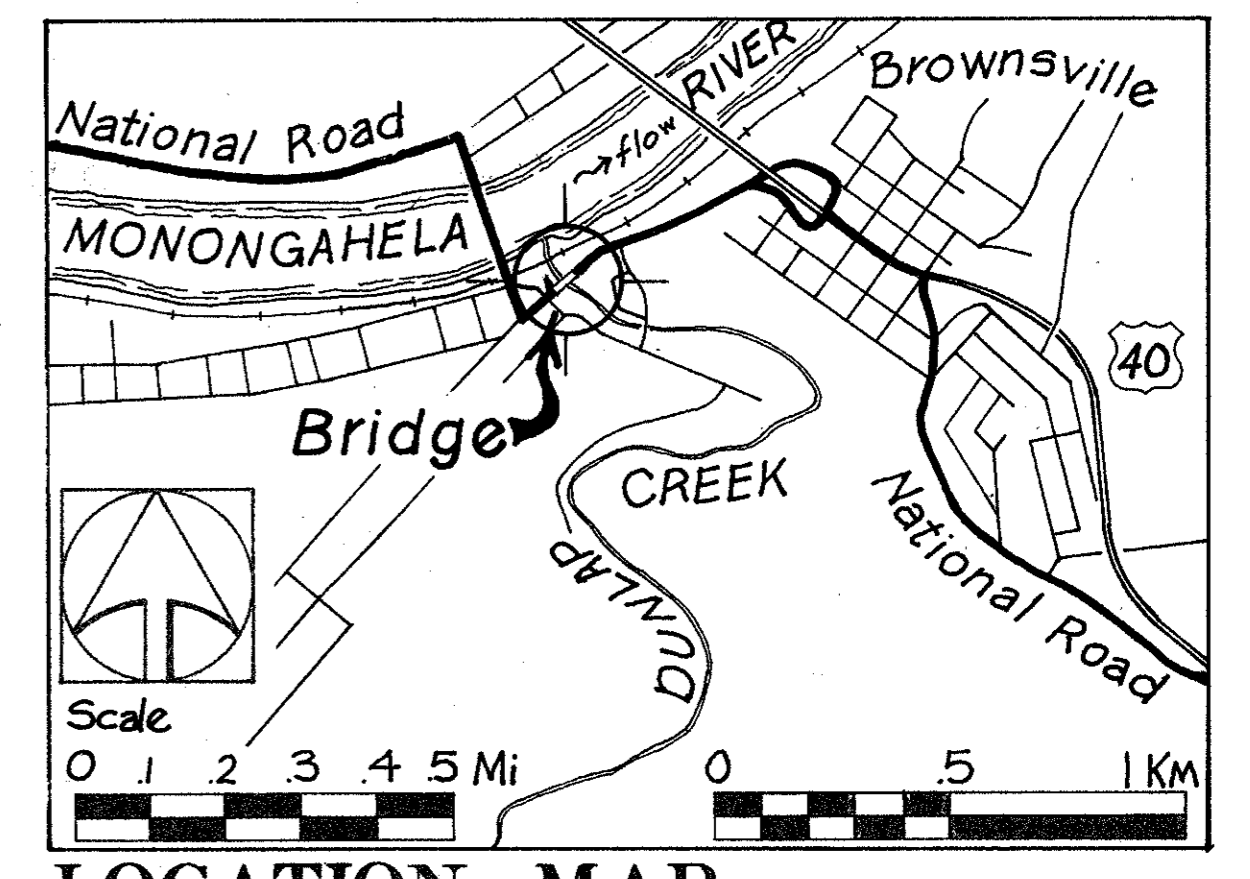


**REGIONAL MAP**  
In 1807 MD, VA, and PA agreed to build their own roads to Cumberland, MD to connect with a federally-built inland route leading to the Ohio River and the West. "The Cumberland Road" was completed to Wheeling in 1818. Later called the "National Road," it continued to Columbus, OH and eventually to St. Louis on the Mississippi. Today the route is known as U.S. Route 40.

The Dunlap Creek Bridge was designed in 1834-36 as a cast-iron bridge by Capt. Richard Delafield of the U.S. Army Corps of Engineers. After four other bridges had failed at the site since 1808, Delafield wanted to assure the permanence of the new bridge, as it was part of the National Road through Brownsville, an important trading center of the early 19th C. Although cast-iron bridges had been common in Great Britain for forty years, this was the first cast-iron bridge built in the United States. Lt. George Cass purchased pig iron from Portsmouth, Ohio and the castings were poured in Brownsville at the foundry of John Snowden, supervised by John Herbertson. The massive abutments were built from local sandstone and laid by Keys and Searight. Although construction started in 1836, delays caused by bad weather, political controversy, labor shortages, and inadequate funding postponed completion of the bridge until 1839. These measured drawings depict the bridge in its original state before 1920, when later additions obscured the view. In 1922 the Pennsylvania Department of Transportation added two concrete sidewalks supported by cantilever brackets (removing the original railings), the old

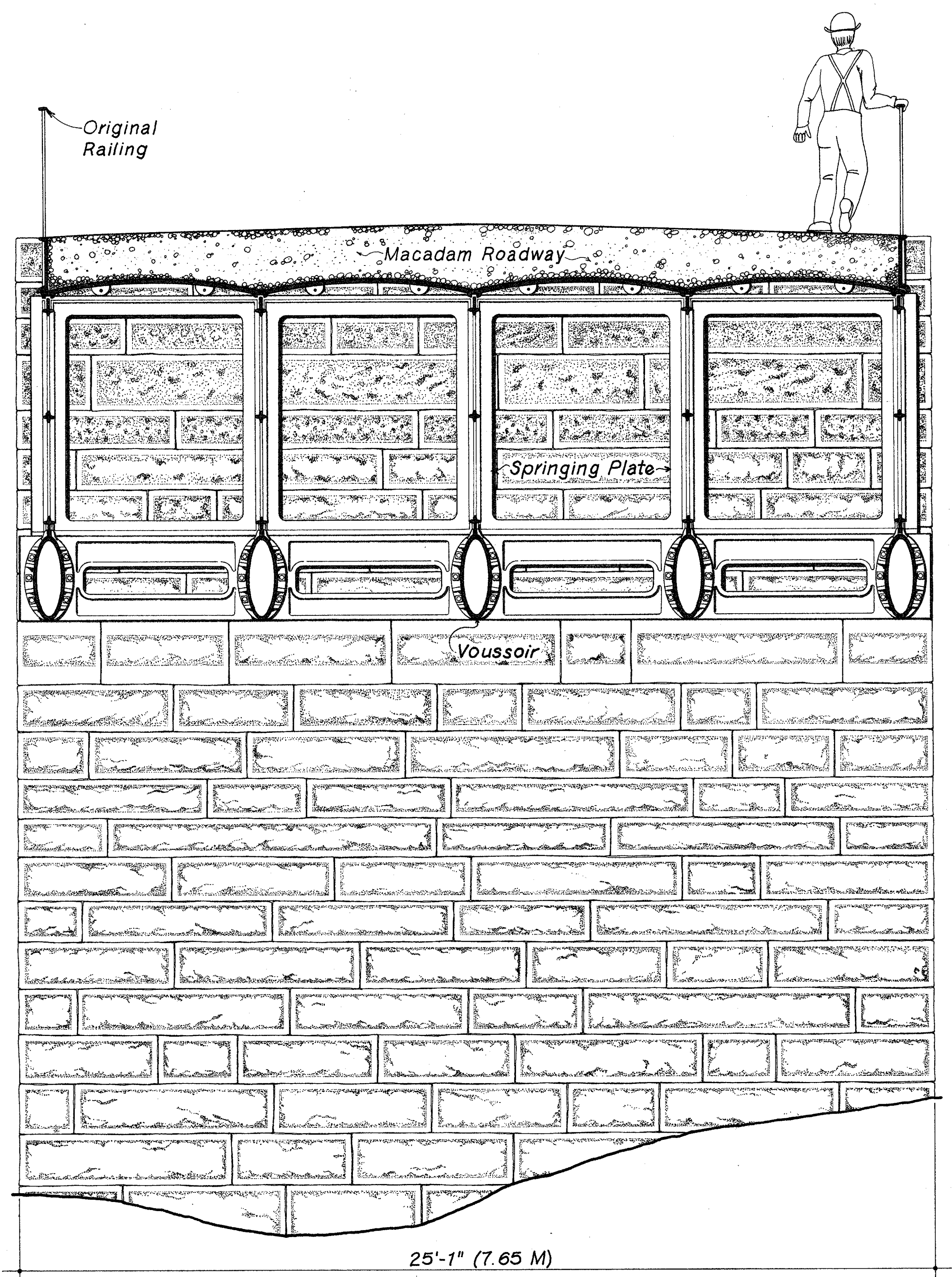
macadam road surface was replaced with asphalt, and commercial buildings encroached out over the creek bed. Despite these alterations the bridge remains an essential link through downtown Brownsville, carrying modern loads unimaginable to the bridge's designers.

The drawings of the Dunlap Creek Bridge were produced in the summer of 1992 as part of a larger effort to document the historic industrial sites of the Monongahela River Valley by the Historic American Engineering Record (HAER). The project was cosponsored by Steel Industry Heritage Corporation, Jo Debolt, Chair. The field work, measured drawings, and photographs were prepared under the general direction of Dr. Robert J. Kapsch, Chief, HABS/HAER, and Eric N. DeLony, Chief, HAER. The project leader was Dr. Dean Herrin, HAER Historian. The summer recording team consisted of Joel Sabadasz, Historian Supervisor, Christopher Marston, Architectural Supervisor, Dana Peak (UC-Davis), and Brian Chevchek (Bowling Green), Architectural Technicians. Formal photography was done by Jet Lowe. Dr. Frances Robb served as the project historian.

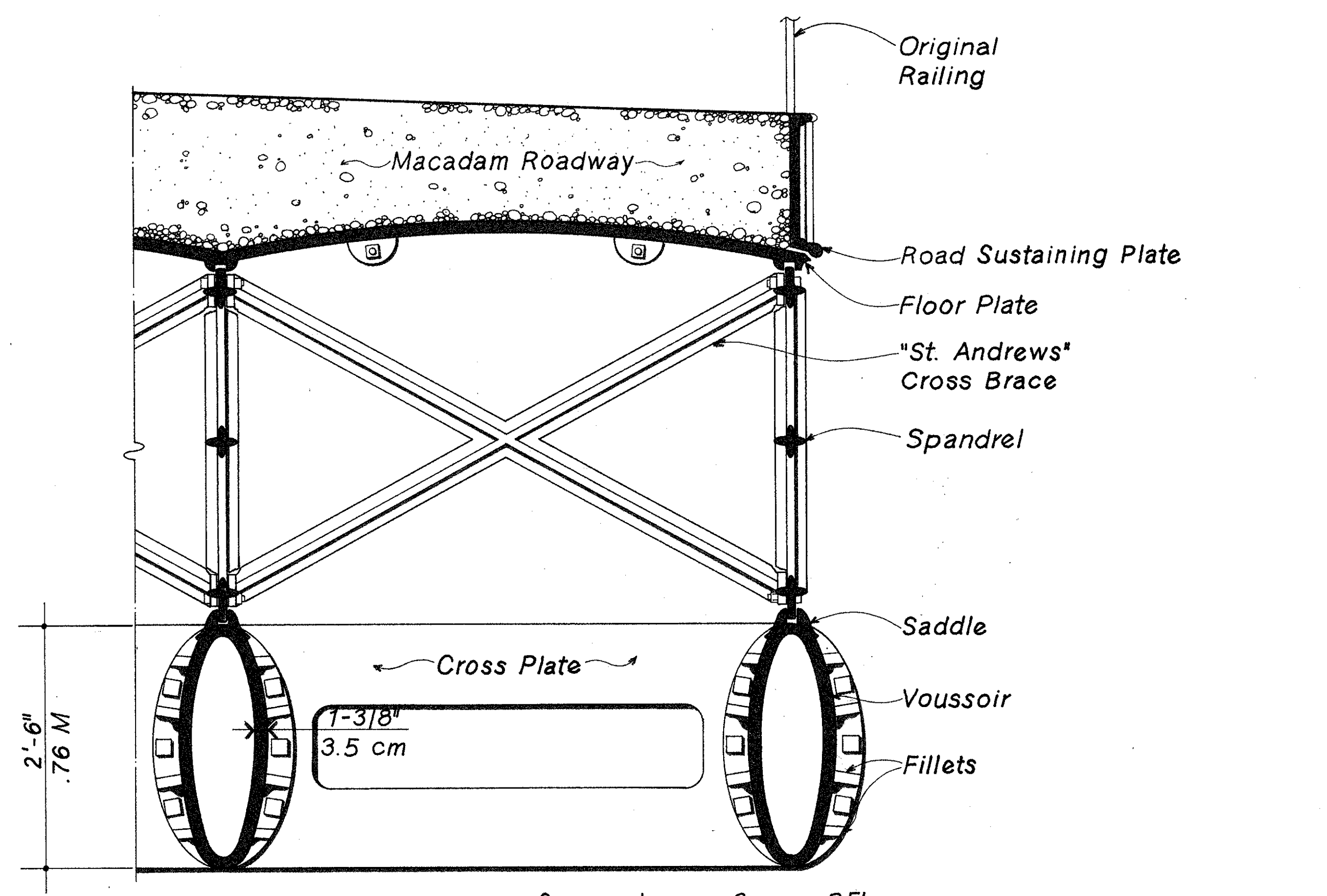
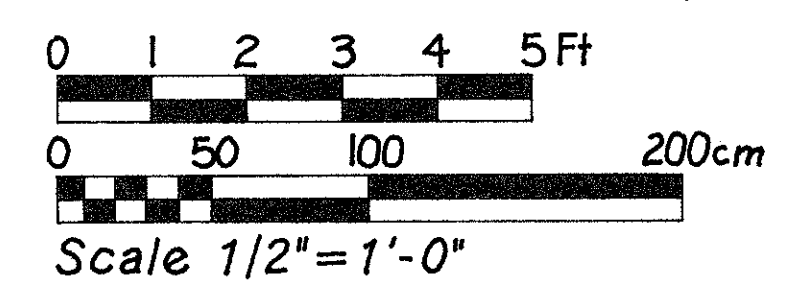


**LOCATION MAP**  
This map shows how old Route 40 or "The National Road" zigzagged through Brownsville. The Dunlap Creek Bridge lay in "The Neck" business district, notorious for traffic bottlenecks. Modern-day traffic passes through town on a 4-lane bypass. Based on USGS 7.5 Min Series, California Quad. UTM Ref No.: 17.594890.4430530.

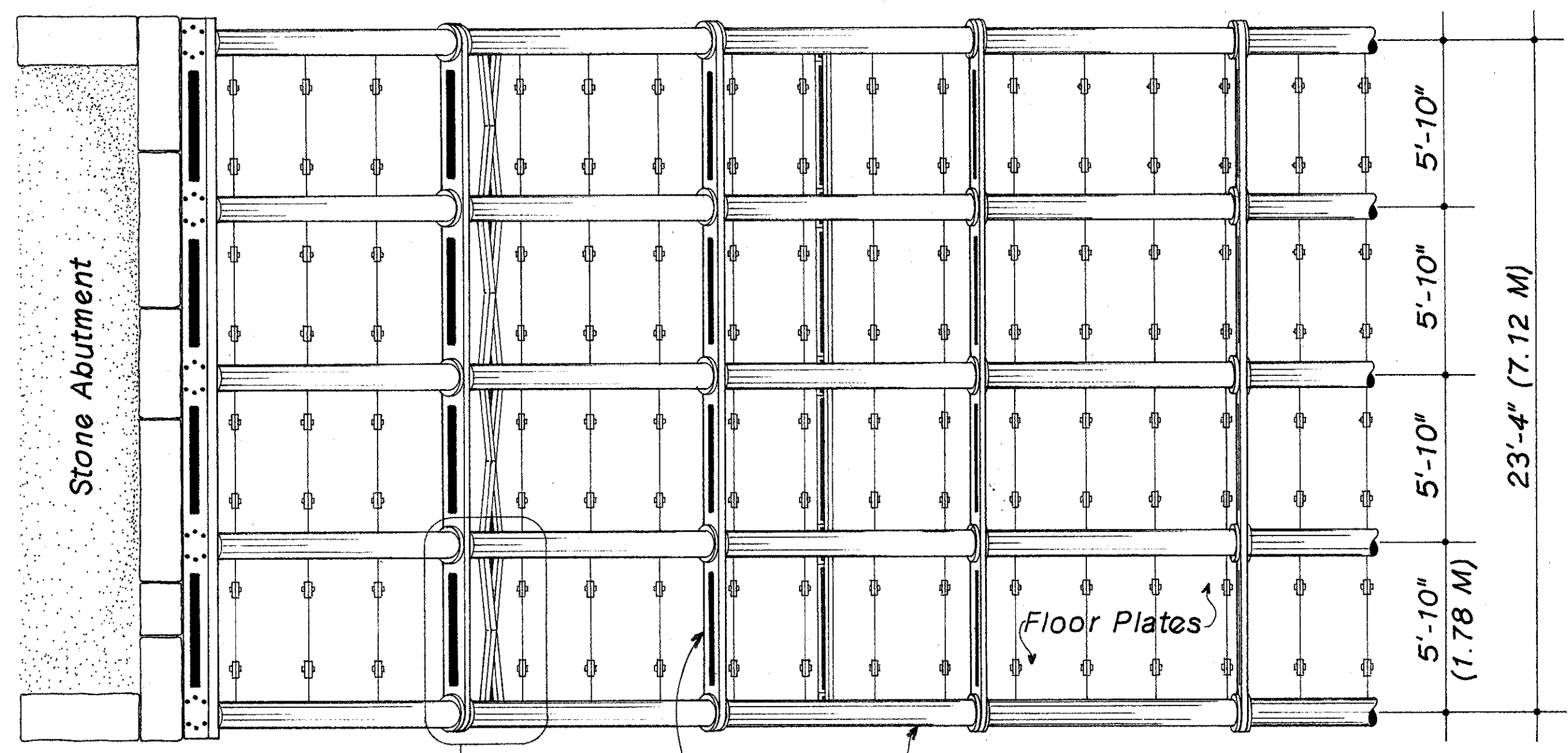
HISTORIC AMERICAN ENGINEERING RECORD  
SHEET 1 OF 3  
PENNSYLVANIA  
DUNLAP CREEK BRIDGE  
MAIN STREET  
FAYETTE COUNTY  
BROWNSVILLE  
DELINEATED BY: Christopher H. Marston, 1992  
MONONGAHELA VALLEY RECORDING PROJECT  
UNITED STATES DEPARTMENT OF THE INTERIOR  
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**TRANSVERSE SECTION**  
Based on Field Measurements



**DETAIL**



**PLAN**

Reflected Ceiling Plan of underside of bridge  
(Fillets on voussoir flanges not shown)

DELINEATED BY: Christopher H. Marston, 1992

MONONGAHELA VALLEY  
RECORDING PROJECT  
UNITED STATES DEPARTMENT OF THE INTERIOR

BROWNSVILLE

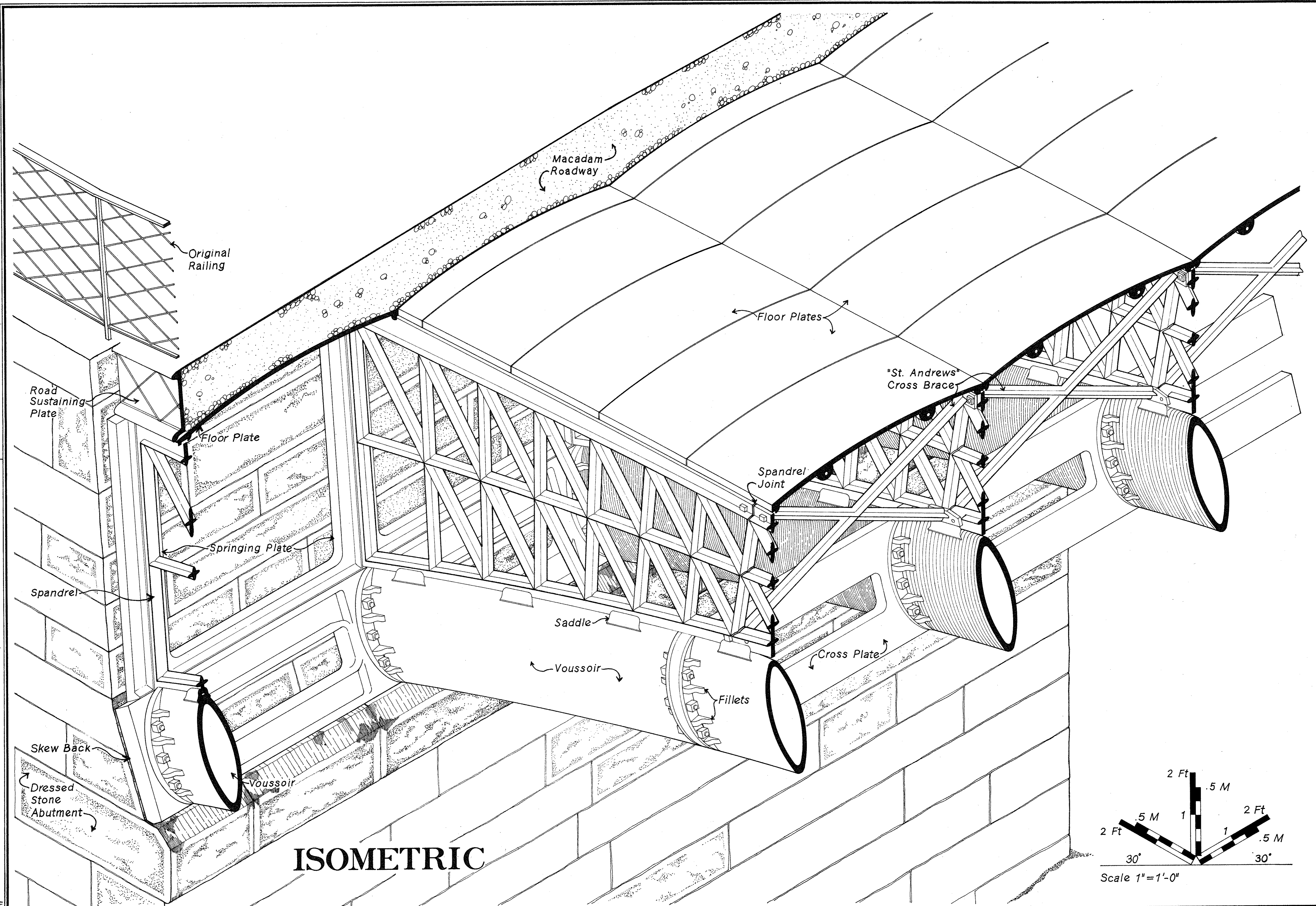
DUNLAP CREEK BRIDGE  
MAIN STREET  
FAYETTE COUNTY

PENNSYLVANIA

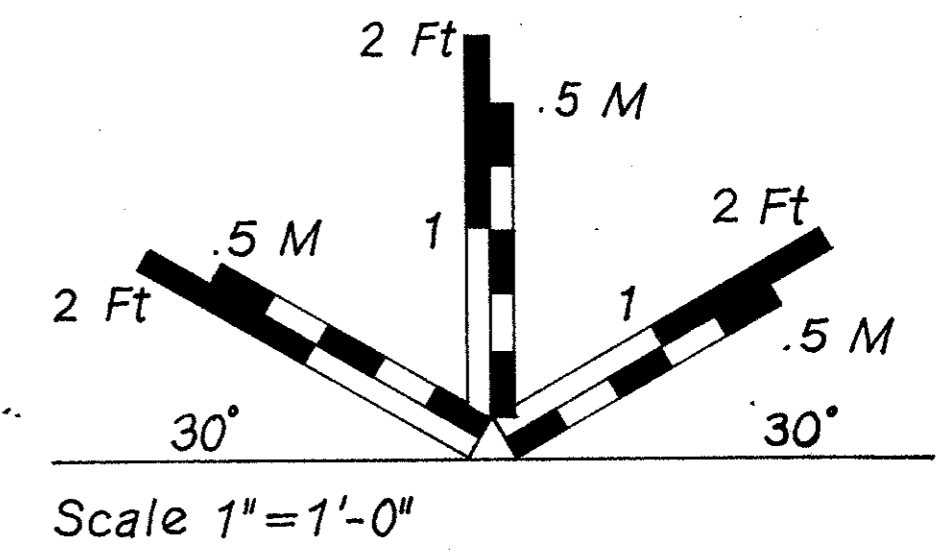
SHEET 2 of 3

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**ISOMETRIC**



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BROWNSVILLE

DUNLAP CREEK BRIDGE  
 MAIN STREET  
 FAYETTE COUNTY

PENNSYLVANIA

SHEET 3 OF 3

HISTORIC AMERICAN  
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