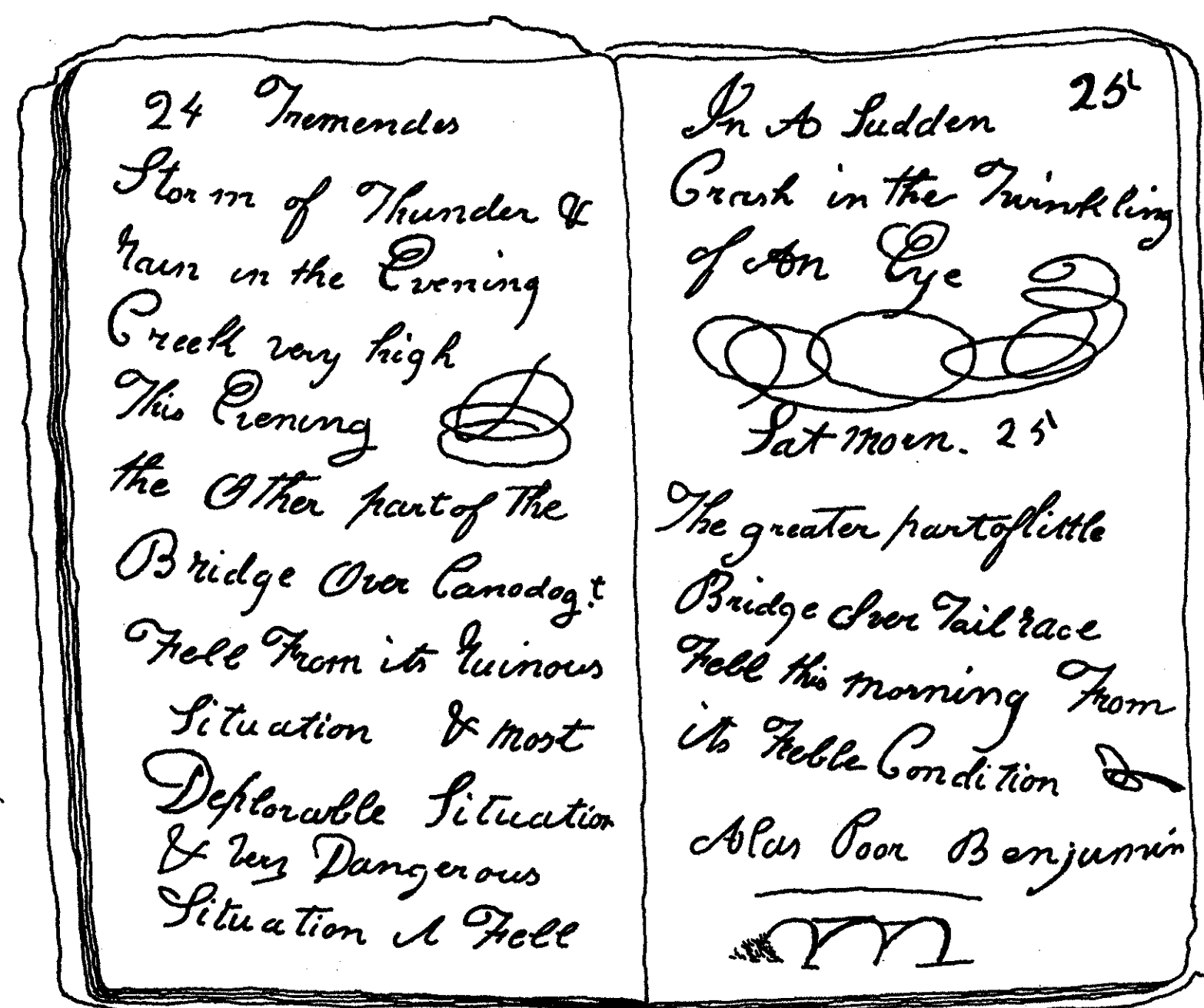


# MACLAY'S MILL TWIN BRIDGE

## EAST & WEST

### FRANKLIN CO., PENNSYLVANIA 1827

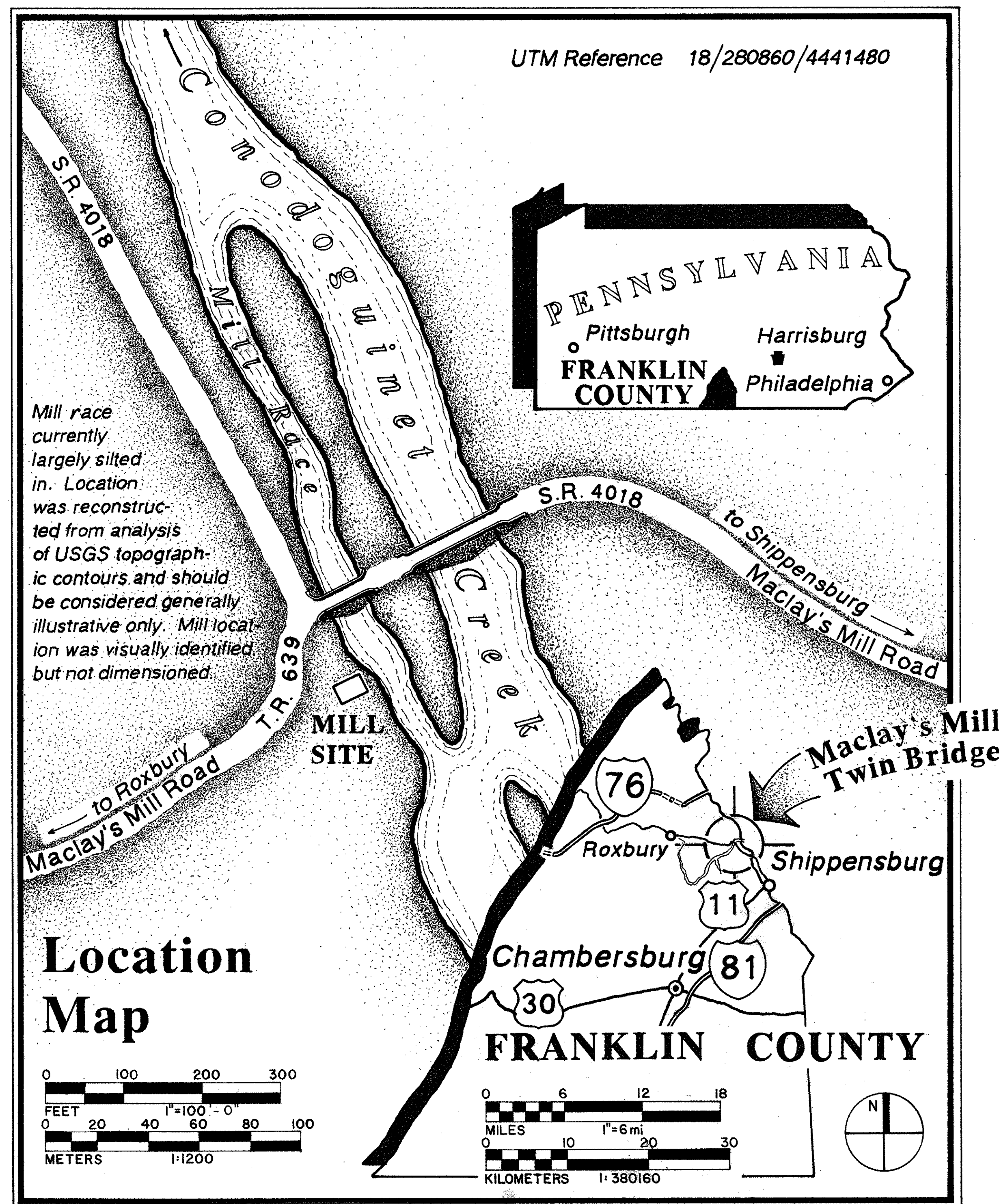
Day Book of Charles Maclay, MSS Group 352,  
Pennsylvania State Archives, Harrisburg, PA



Silas Harry was a master stone mason. During the first half of the nineteenth century, Harry built stone arch bridges throughout much of the Cumberland Valley in Pennsylvania and Maryland. When an early spring storm in 1826 caused the two-year-old bridges spanning Conodoguinet Creek and the tail race of David Maclay's mill complex to collapse (as noted in the Day Book of Charles Maclay), Harry was hired to construct the enduring stone arch structures now known as the Maclay's Mill Twin Bridges.

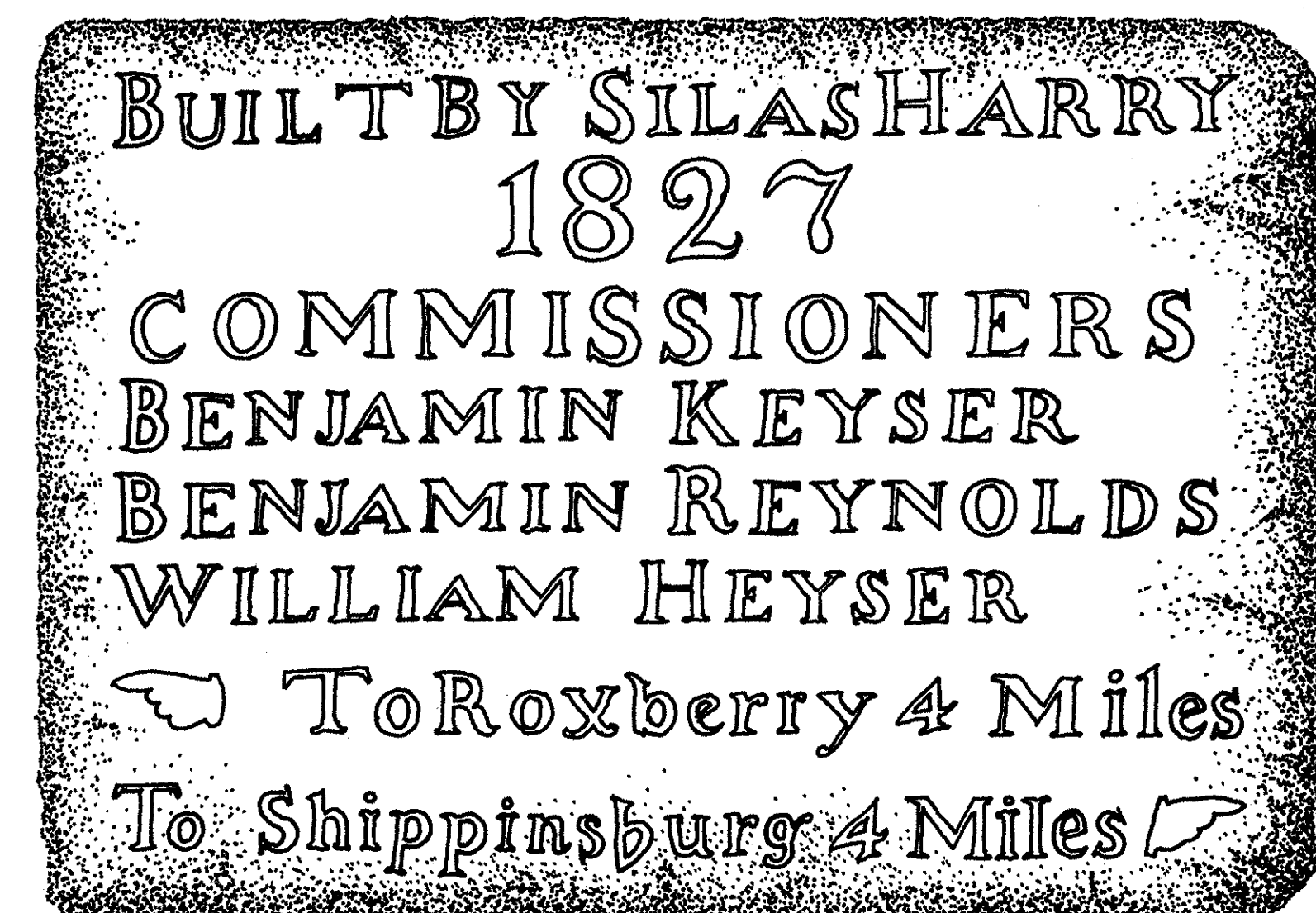
The twin bridges at Maclay's Mill are significant on a number of levels. As historic structures, they are remarkable examples of traditional masonry bridges once common throughout the American landscape. Harry's work as a master mason and bridge builder is exemplified in the Maclay's Mill Twin Bridges. These bridges recapitulate his accomplishments on other similar structures that survive intact, as well as those that are documented in historic photographs from Franklin County, Pennsylvania - Harry's home - and neighboring vicinities.

Another level of significance is derived from the bridges' association with David Maclay, the second-generation owner and proprietor of Maclay's Mill. Maclay was a prominent Franklin County land owner and miller who also served in the Pennsylvania Legislature. The Maclay family is best known historically for David Maclay's uncle, William Maclay, who served as one of Pennsylvania's first two United States senators.



Location Map from USGS  
Shippensburg, PA Quadrangle, 1973

Franklin County Map from 1997-1998 Official Transportation and Tourism  
Map, Commonwealth of Pennsylvania, Dept. of General Services, 1997



Date stone in north parapet of east bridge

The Pennsylvania Historic Bridges Recording Project - I is a part of the Historic American Engineering Record (HAER), a long-range program of documenting historically significant engineering, industrial, and maritime sites in the United States. The HAER program is administered by the National Park Service, U.S. Department of the Interior. The Pennsylvania Historic Bridges Recording Project - I was co-sponsored during the summer of 1997 by HABS/HAER under the general direction of E. Blaine Cliver, Chief; the Pennsylvania Department of Transportation, Bureau of Environmental Quality, Wayne W. Kober, Director; and the Pennsylvania Historical and Museum Commission, Brent D. Glass, Executive Director and State Historic Preservation Officer.

The fieldwork, measured drawings, historical reports, and photographs were prepared under the direction of Eric DeLony, Chief of HAER. The team consisted of Robert W. Grzywacz, Architectural Supervisor (Architect, New Haven, CT); Slavica Bubic (ICOMOS, Republic of Croatia), Jonathan Cherry (Rice University), Michael Falser (ICOMOS, Austria), and Elizabeth Milnarik (University of Illinois, Urbana - Champaign), Architects; Dr. Mark M. Brown (Pittsburgh, PA), Project Historian; J. Philip Gruen (University of California, Berkeley), Dr. David Rotenstein (Pittsburgh, PA), and Blythe Semmer (Middle Tennessee State University), Historians; Dr. Dario Gasparini, P.E. (Case Western University) and Stephen Buonopane (Cornell University), Engineers, and Joseph Elliott Photographer.

DELINEATED BY: ROBERT W. GRZYWACZ 1997

PENNSYLVANIA HISTORIC BRIDGES  
RECORDING PROJECT - I  
UNITED STATES DEPARTMENT OF THE INTERIOR

MOWERSVILLE VIC.

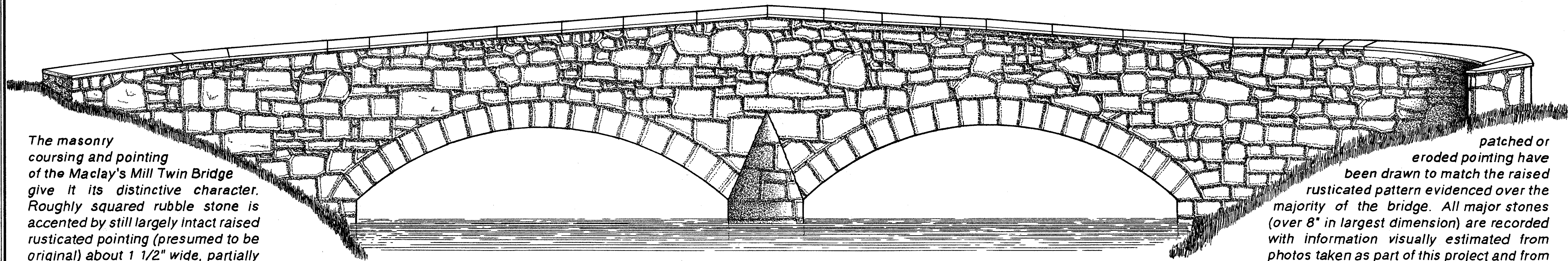
MACLAY'S MILL TWIN BRIDGE EAST AND WEST - 1827  
SPANNING CONODOGUINET CREEK AT MACLAY'S MILL RD (SR 4018)  
FRANKLIN COUNTY

SHEET  
1 of 2

HISTORIC AMERICAN  
ENGINEERING RECORD  
PA-457

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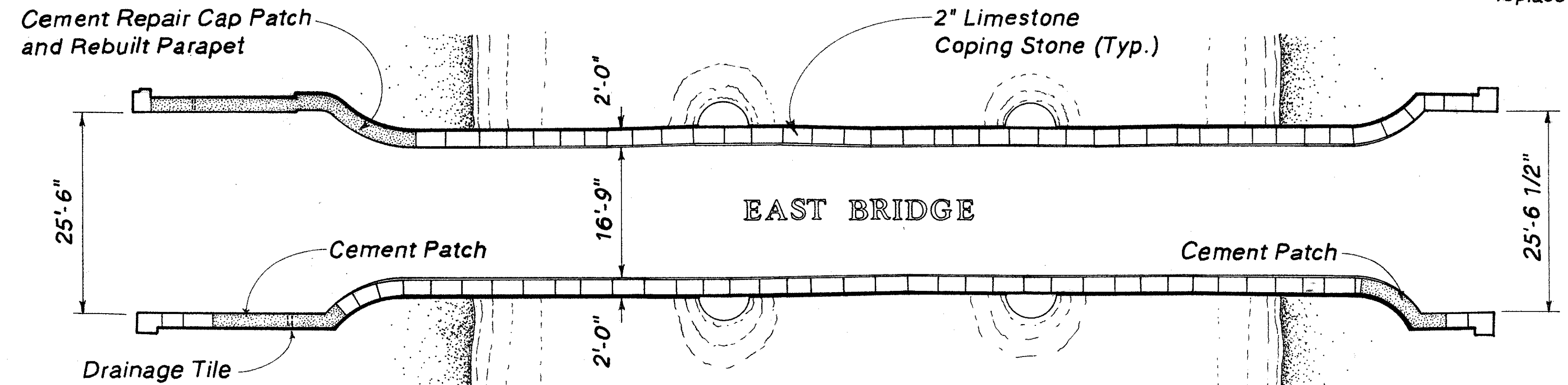
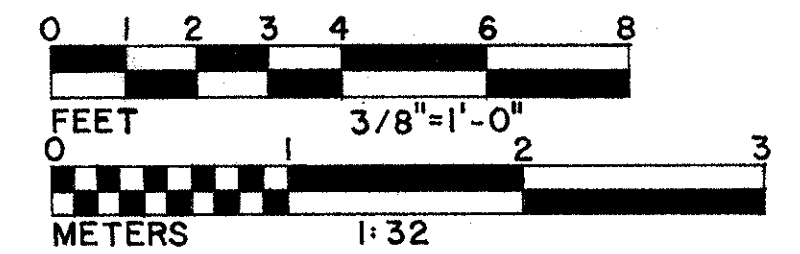


The masonry coursing and pointing of the Maclay's Mill Twin Bridge give it its distinctive character. Roughly squared rubble stone is accented by still largely intact raised rusticated pointing (presumed to be original) about 1 1/2" wide, partially covering adjacent stones, and tooled in a raised ridge to a height of about 3/4". This rendered elevation represents this pointing and the strong shadows it casts. Areas of

patched or eroded pointing have been drawn to match the raised rusticated pattern evidenced over the majority of the bridge. All major stones (over 8" in largest dimension) are recorded with information visually estimated from photos taken as part of this project and from known bridge dimensions.

# NORTH ELEVATION - WEST BRIDGE

Wing walls and approach parapet walls show evidence of multiple repairs. In addition, limestone coping stones have been replaced with cement patches in a number of places as noted.

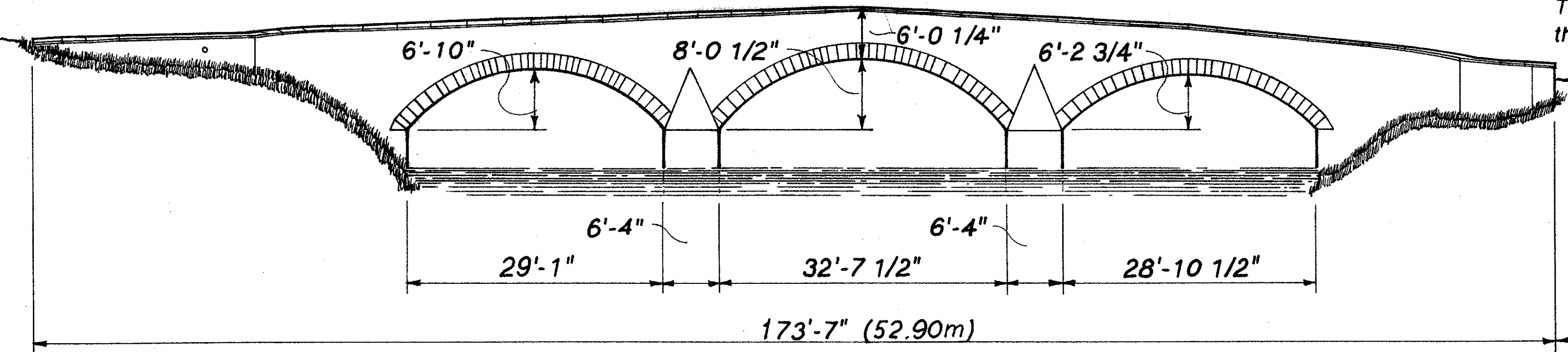
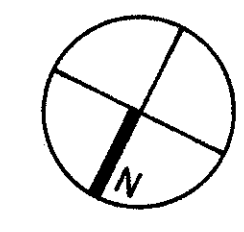
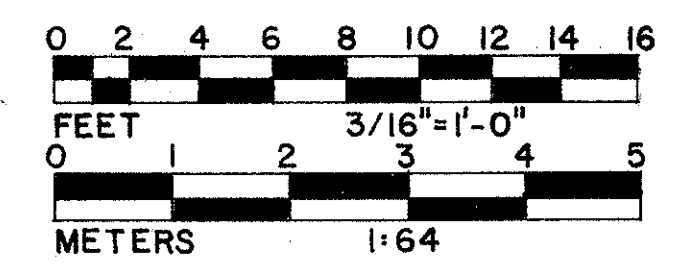


## PLAN

Rubble stone construction is inherently irregular in dimension. Parapet wall thickness varies within 1" +/- of the values shown. Typical of stone bridge construction, the parapet walls bear on the vaults but are unrestrained against lateral movement. With the pressures of live and dead loads as well as frost acting on the walls over time

they gradually shift in two ways: they slide outward on the vault and they begin to lean outward beginning at the point where the restraint of bonding to the vault or buttress piers stops. Maclay's Mill Twin Bridge exhibits both movement types. The parapet walls have shifted nearly an inch relative to the supporting vaults and in some places

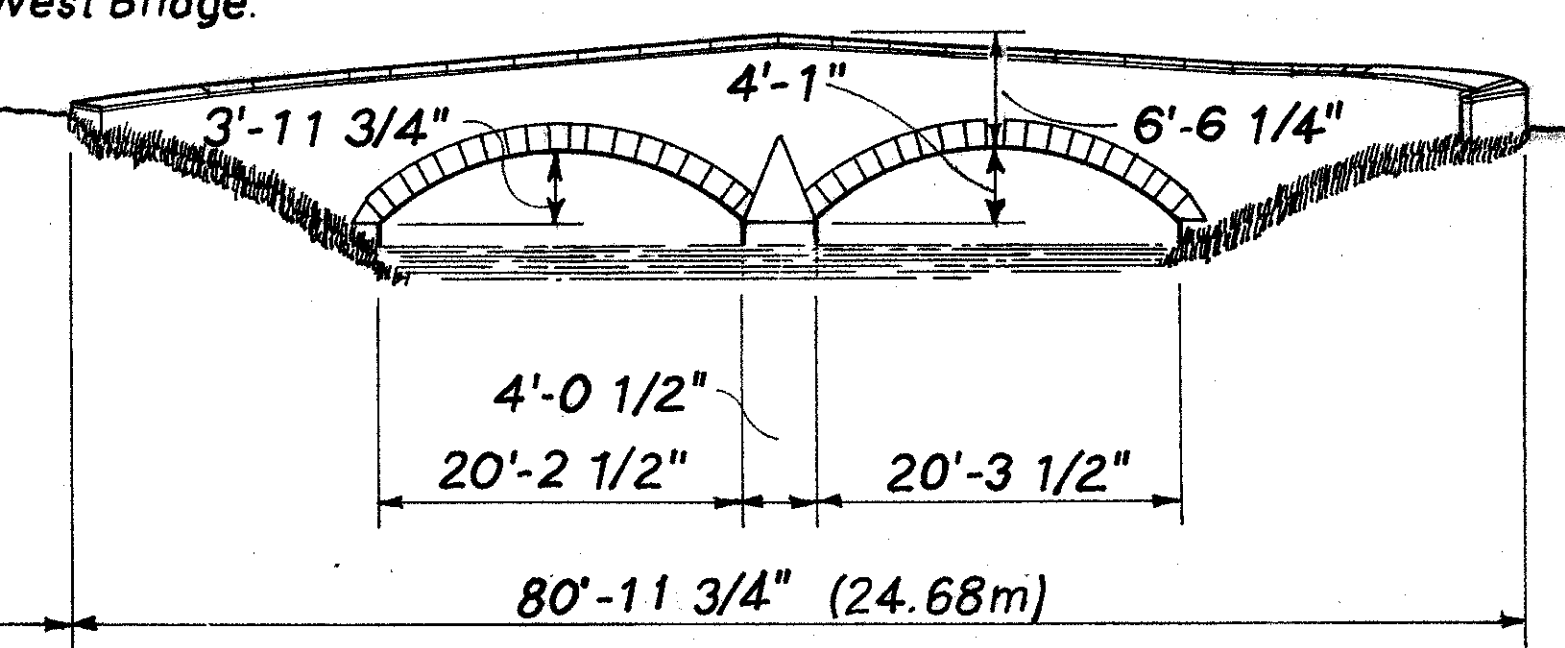
are four or more inches out of plumb. This results in the variable roadway width shown in this plan, with the width tending to be narrowest where the walls are shortest at the crowns of the vaults, and widest where they are highest at the spring points. The roadway widths shown are average, with actual values often varying from these by many inches.



## EAST BRIDGE

The peak of the East Bridge parapet is 5'-5" above the corresponding point on the West Bridge.

Water levels in the Conodoguinet Creek are variable. At the time of measurement, the East Bridge arch spring points were 4'-4" above the water.



## WEST BRIDGE

# NORTH ELEVATION