

Memo to file

March 16, 2016

From: Casey Pecoraro
Inventory Registrar

Re: BA-2698
Bridge No. B 0401

The following Historic Bridge Inventory form, prepared in 1995 to document the concrete slab bridge carrying Sparks Road over Tributary of Carroll Run, was completed using Bridge No. B 0401 (also formatted as B0401).

This bridge is a county-owned bridge and is not owned by Maryland SHA (Anne Bruder, personal communication, March 11, 2015).

MARYLAND INVENTORY OF HISTORIC BRIDGES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION/
MARYLAND HISTORICAL TRUST

MHT No. BA-2698

~~SHA~~ Bridge No. B 0401 Bridge name Sparks Road over Tributary of Carroll Run

LOCATION:

Street/Road name and number [facility carried] Sparks Road

City/town Sparks 0.3 mi W of Carroll Road Vicinity X

County Baltimore

This bridge projects over: Road Railway Water X Land

Ownership: State County X Municipal Other

HISTORIC STATUS:

Is bridge located within a designated historic district? Yes No X

National Register-listed district National Register-determined-eligible district

Locally-designated district Other

Name of district

BRIDGE TYPE:

Timber Bridge :

Beam Bridge Truss -Covered Trestle Timber-And-Concrete

Stone Arch Bridge

Metal Truss Bridge

Movable Bridge :

Swing Bascule Single Leaf Bascule Multiple Leaf

Vertical Lift Retractable Pontoon

Metal Girder :

Rolled Girder Rolled Girder Concrete Encased

Plate Girder Plate Girder Concrete Encased

Metal Suspension

Metal Arch

Metal Cantilever

Concrete X:

Concrete Arch Concrete Slab X Concrete Beam Rigid Frame

Other Type Name

DESCRIPTION:

Setting: Urban _____ Small town _____ Rural X

Describe Setting: Bridge B0401 carries Sparks Road in an east-west direction over a tributary of Carroll Run which flows in a southerly direction. The area is relatively undeveloped with only one house in vicinity of the bridge; to the west of the road are woods, and to the east of the road open fields.

Describe Superstructure And Substructure:

Bridge B0401 is a single span concrete slab on concrete abutments and concrete wingwalls. The bridge was built in 1920; it was left in place and an Acrow bridge was put on top in 1990. The curb to curb width is 13.6 feet and the deck out to out width is 13.6 feet. The overall length of the structure is 63.0 feet. The parapets have been removed. The roadway supports one lane traffic only. The bridge is not posted.

Discuss Major Alterations:

The bridge was superimposed with an Acrow bridge in 1990 and the concrete parapets were removed at the same time. The existing bridge remains in place under the Acrow bridge but is in very poor condition.

HISTORY:

WHEN was bridge built (actual date or date range) 1920, reconstructed 1990

This date is: Actual Estimated X

Source of date: Plaque Design plans County bridge files/inspection form X

Other (specify) _____

WHY was the bridge built?

The need for a more efficient transportation network and increased load capacity in the decades following World War I.

WHO was the designer?

State Highway Administration

WHO was the builder?

Unknown

WHY was the bridge altered?

The bridge was altered to address structural deficiencies .

WAS this bridge built as part of an organized bridge-building campaign?

As part of an effort by the State to increase load capacity on secondary roads during the 1920s.

SURVEYOR/HISTORIAN ANALYSIS:

This bridge may have National Register significance for its association with:

A - Events _____ B- Person _____

C- Engineering/architectural character _____

This bridge does not have National Register significance.

Was the bridge constructed in response to significant events in Maryland or local history?

Reinforced concrete slab bridges are a twentieth century structure type, easily adapted to the need for expedient engineering solutions. Reinforced concrete technology developed rapidly in the early twentieth century with early recognition of the potential for standardized design. The first U.S. attempt to standardize concrete design specifications came in 1903-04 with the formation of the Joint Committee on Concrete and Reinforced Concrete of the American Society of Civil Engineers.

Maryland's road and bridge improvement programs mirrored economic cycles. The first road improvement program of the State Roads Commission was a 7 year program, starting with the Commission's establishment in 1908 and ending in 1915. Due to World War I, the period from 1916 -1920 was one of relative inactivity; only roads of first priority were built. Truck traffic resulting from war-related factories and military installations generated new, heavy traffic unanticipated by the builders of the early road system. From 1920 to 1929, numerous highway improvements occurred in response to the increase in Maryland motor vehicles from 103,000 in 1920 to 320,000 in 1929, with emphasis on the secondary system of feeder roads which moved traffic from the primary roads built before World War I. After World War I, Maryland's bridge system also was appraised as too narrow and structurally inadequate for the increasing traffic, with plans for an expanded bridge program to be handled by the Bridge Division, set up in 1920. In 1920 under Chapter 508 of the Acts of 1920 the State issued a bond of \$3,000,000.00 for road construction; the primary purpose of these monies was to meet the state obligations involving the construction of rural post roads. The secondary purpose of these monies was to fund [with an equal sum from the counties] the building of lateral roads. The number of hard surfaced roads on the state system grew from 2000 in 1920 to 3200 in 1930. By 1930, Maryland's primary system had become inadequate to the huge freight trucks and volume of passenger cars in use, with major improvements occurring in the late 1930s. Most improvements to local roads waited until the years after World War II.

With a diverse topographical domain encompassing numerous small and large crossings, Maryland engineers quickly recognized the need for expedient design and construction.

In the early years, there was a need to replace the numerous single lane timber bridges. Walter Wilson Crosby, Chief Engineer stated in 1906, "The general plan has been to replace these [wood bridges] with pipe culverts or concrete bridges and thus forever do away with the further expense of the maintenance of expensive and dangerous wooden structures". Within a few years, readily constructed standardized bridges of concrete were being built throughout the state.

The creation of standard plans and a description of their use was first announced in the 1912-15 Reports of the State Roads Commission whereby bridges spanning up to 36 feet were to use standardized designs.

Published on a single sheet, the 1912 Standard Plans included those structures that were amenable to such an approach: slab spans, (deck) girder spans, box culverts, box bridges, abutments, and piers (State Roads Commission 1912). Slab spans, with lengths of 6 to 16 feet in two foot increments, featured a solid parapet that was integrated into the slab, with a roadway of 22 feet.

In the Report for the years 1916-1919, a revision of the standard plans was noted:

During the four years covered by this report, it has been found necessary to revise our standard plans for culverts and bridges, to take care of the increased tonnage which they have been forced to carry. Army cantonments...increased their operations several hundred per cent, and the brunt of the enormous truck traffic resulting therefrom, was borne by the

SURVEYOR:

Date bridge recorded 08/15/95

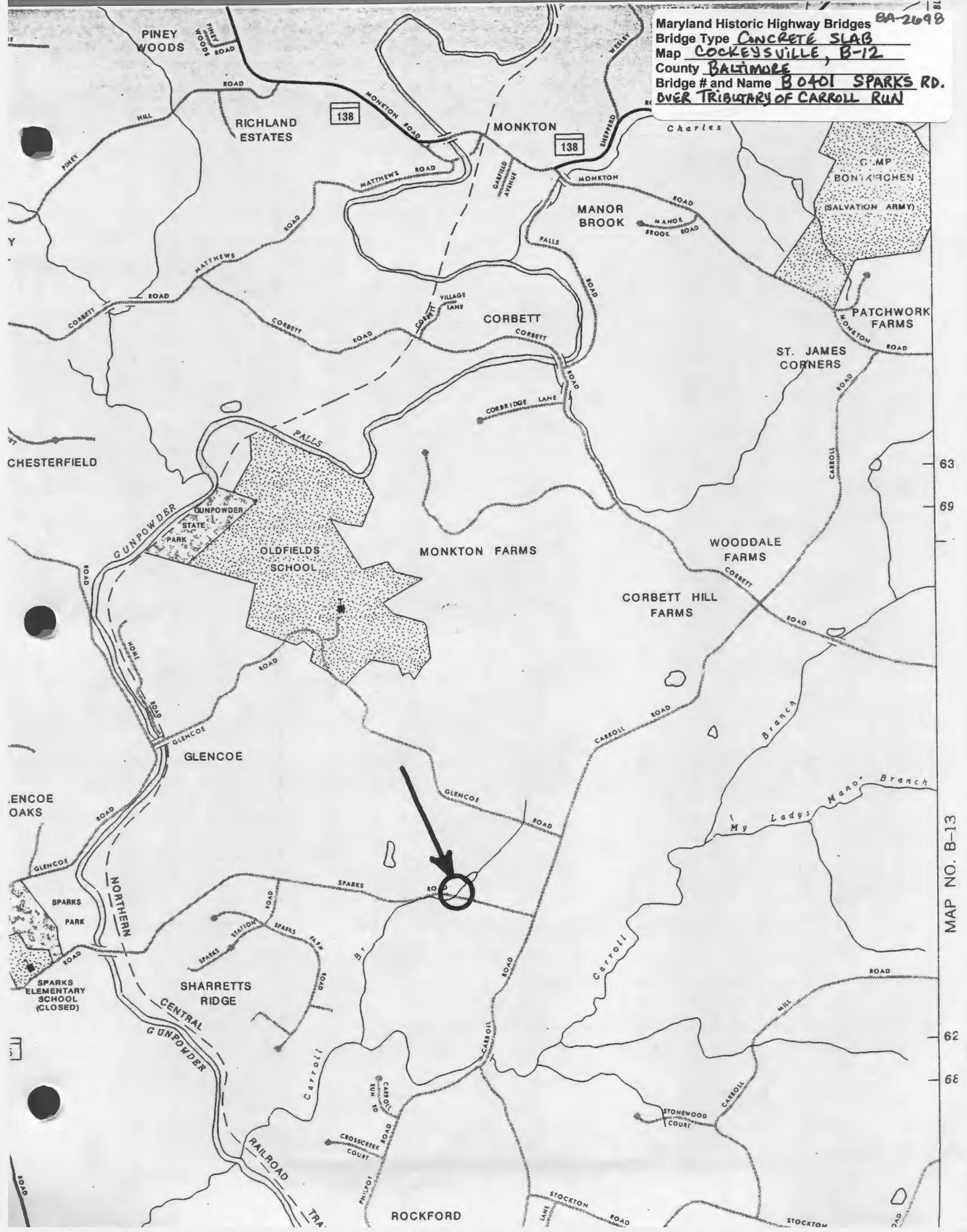
Name of surveyor Colin Farr

Organization/Address P.A.C. Spero & Company, Suite 412, 40 West Chesapeake Ave., Baltimore, MD 21204

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Maryland Historic Highway Bridges BA-2698
 Bridge Type CONCRETE SLAB
 Map COCKEYSVILLE, B-12
 County BALTIMORE
 Bridge # and Name B 0401 SPARKS RD. OVER TRIBUTARY OF CARROLL RUN



MAP NO. B-13



Inventory # BA-2698

Name BOX 101 - SPARKS RD OVER A TRIBUTARY OF CARROLL RUN

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description WEST APPROACH LOOKING SOUTH

Number 1 of 2



Inventory # BA-2698

B0401- SPARKS RD OVER A TRIBUTARY OF
Name CARROLL RUN

County/State BALTIMORE COUNTY / MD

Name of Photographer DAVE DIEHL

Date 1/95

Location of Negative SHA

Description EAST ELEVATION LOOKING
NORTHWEST

Number 2 of 372