

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: HA-1984

Name: Powensess US 1 over Winters Run

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <input checked="" type="checkbox"/>	Eligibility Not Recommended <input type="checkbox"/>
Criteria: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D	Considerations: <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F <input type="checkbox"/> G <input type="checkbox"/> None
Comments: _____ _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

Maryland Inventory of Historic Properties
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

MHT Number HA-1984

SHA Bridge No. 12004 **Name:** Business US 1 over Winters Run (Winters Run Bridge)

Location:

Street/Road Name and Number: Business US 1 (Bel Air Road)

City/Town: Bel Air Vicinity X

County: Harford

Ownership: X State County Municipal Other

This bridge projects over: Road Railway X Water Land

Is the bridge located within a designated district: yes X no

 NR listed district NR determined eligible district
 locally designated other
Name of District

Bridge Type:

 Timber Bridge

 Beam Bridge Truss-Covered Trestle
 Timber-and-Concrete

 Stone Arch

 Metal Truss

 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

X Concrete

X Concrete Arch Concrete Slab Concrete Beam
 Rigid Frame

 Other Type Name _____

Describe Setting:

Bridge 12004 carries Business US 1 over Winters Run in Harford County. Business US 1 runs east-west over the northern flowing Winters Run. Business Route US 1 is a heavily developed area; however, at this site there is limited commercial and residential development.

Describe Superstructure and Substructure:

Bridge 12004 is a single-span filled concrete arch bridge. The length of the bridge is 77 feet with a clear span of 55 feet. The rise is approximately 12.5 feet. The abutments are concrete and are approximately 24 feet wide and 13 feet high. There is a clear roadway width of 50 feet, with an overall width of 54 feet 4 inches. According to a 1996 inspection report the arch has medium to small size spalls along the barrel and spandrel wall joint. In addition, there is efflorescence along the spandrel walls, which also show signs of medium vertical and irregular cracks with small and medium areas of delamination. The bridge is in good condition, with a sufficiency rating of 72.2.

This bridge has a pierced parapet. This type of reinforced concrete parapet consists of vertical posts securely fastened by dowels to the structure, horizontal balustrades and solid panels filling the space between the posts and the railings. Bridge 12004 has a 15-to-1 expansion joint railing. The balustrade is 2 feet 11 inches tall with a cap that is 1 foot by 4 feet 3 inches. The end blocks are approximately 20 feet long and are of the closed paneled design. Both parapets exhibit moderate scaling with cracking.

Discuss Major Alterations:

There have been no major alterations to this structure except patching and mortar repair.

When Built: 1930

Why Built: Extension of Bel Air Road between Baltimore and Bel Air

Who Built: State Roads Commission

Who Designed: State Roads Commission

Why Altered: N/A

Was this bridge built as part of an organized bridge building campaign?

Yes, this bridge was built as part of the corridor development between Baltimore City and Bel Air in Harford County.

Surveyor Analysis:

This bridge may have NR significance for association with:

A Events Person

C Engineering/Architectural

This bridge was determined eligible by the Interagency Review Committee in June 1996.

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

Yes, the State Roads Commission was engaged in the construction of mainline truck roads that would connect the state's county seats to major transportation hubs. The work for 6 roads within Baltimore County was undertaken concurrently with work within Baltimore City. Coordination between the two jurisdictions was needed to insure correct alignments of bridge approaches, and surfaces. The State Roads Commission was forced to build with almost identical plans as the City construction and in some cases an expensive construction cost was unavoidable. This parallel construction with Baltimore City reduced the available funds for the county. As a consequence the work was confined to 6 roads within a short distance of the City limits.

One of these 6 roads was Bel Air Road. The improvement of this corridor was at the heart of the "Seven Year Plan". Beginning in 1908 a contract was let on sections of Bel Air from the City Limits to Taylor Avenue (about 3 miles). Although only a 3-mile section of the road was paved and graded, the replacement of timber bridges along the corridor would have fallen within the scope of the "Seven Year Plan." By 1930 the corridor had proceeded into Harford County and new bridges were being built to accommodate the widened roads.

Bridge 12004 represents a non-standardized design by the staff of the State Roads Commission. By 1915 standard plans had been developed for all bridges with spans up to 36 feet in length. It was only necessary for the Resident Engineer (Districts were known as residences) to investigate the foundations then refer to the standard plan and select the type of foundations that would fit the location and conditions. However, concrete slabs and girders, as well as arches over thirty-six feet, were designed for individual situations in 1930.

Is the bridge located in an area that may be eligible for historic designation and would the bridge add to or detract from historic and visual character of the possible district?

No, the bridge is not located in an area that is eligible for historic designation.

Is the bridge a significant example of its type?

Yes this bridge is a significant example of a single span concrete arch built during the 1910 to 1940 key period of significance. During this period reinforced concrete structures were characterized by increasing standardization of small slab, beam, frame, and culvert spans. Special subtypes of reinforced concrete bridges, such as the Luten arch, open spandrel ribbed arch, the rigid frame bridge and concrete girders were introduced and built as grade crossing elimination structures.

Does the bridge retain integrity of the important elements described in the Context Addendum?

Yes this bridge retains integrity of its character defining elements. Although some repairs were made to the wingwalls, the barrel, the spandrel walls, the parapets, and the abutments, all are original and have moderate deterioration.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer and why?

Yes this bridge is a significant example of the State Roads Commission's efforts from 1910 until 1945 to eliminate dangerous geometric alignments. The development of standardized plans helped to facilitate this process.

Should this bridge be given further study before significance analysis is made and why?

No this bridge should not be given further study.

Bibliography:

County inspection/bridge files _____ SHA inspection/bridge files X

Other (list):

Surveyor:

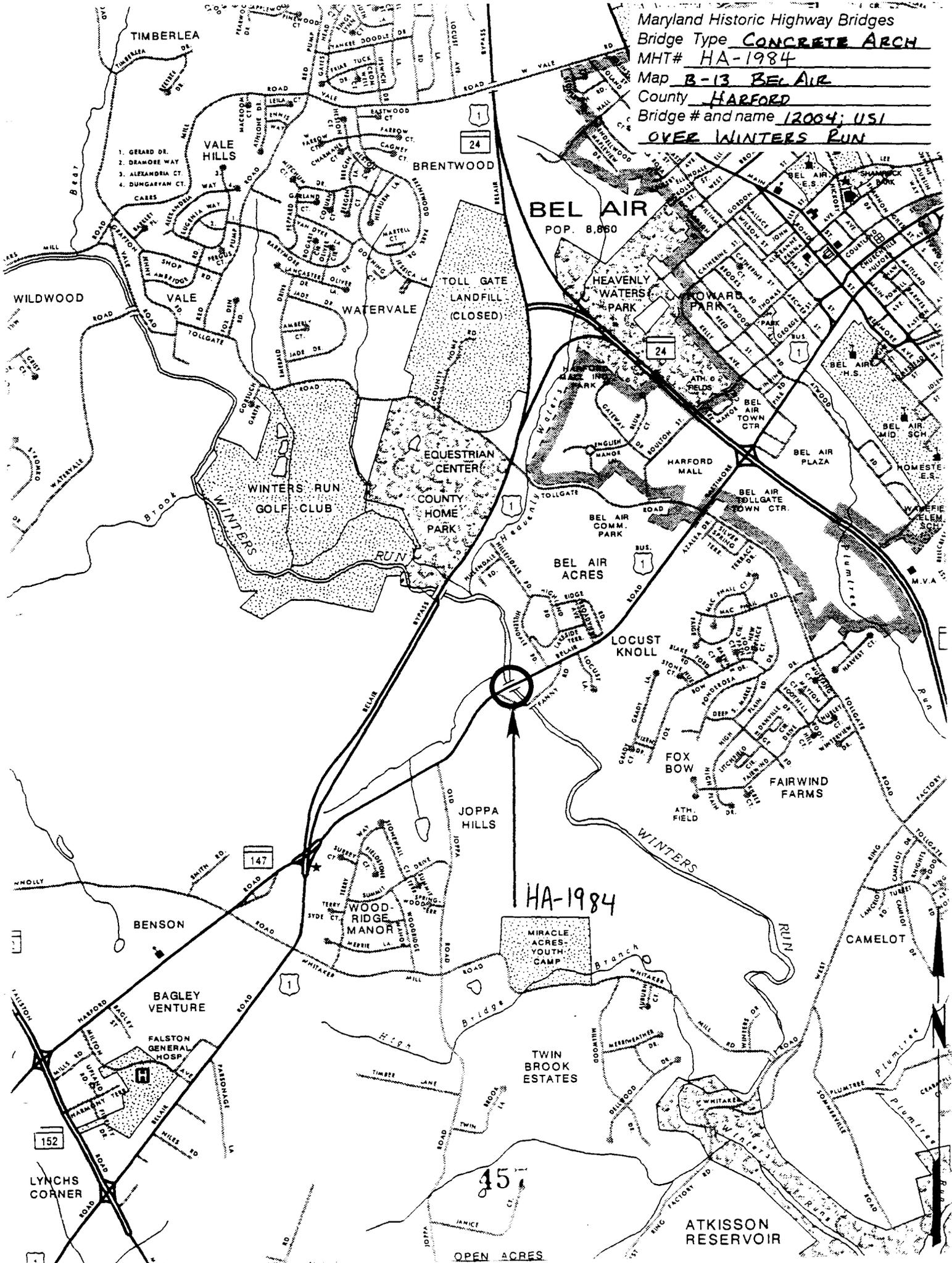
Name: Stacie Y. Webb **Date:** September 1995

Organization: State Highway Admin. **Telephone:** (410) 545-8559

Address: 707 N. Calvert Street Baltimore Maryland

Edited by P.A.C. Spero & Company, December 1997

Maryland Historic Highway Bridges
 Bridge Type CONCRETE ARCH
 MHT# HA-1984
 Map B-13 BEL AIR
 County HARFORD
 Bridge # and name 12004; US1
OVER WINTERS RUN



HA-1984

45

OPEN ACRES

ATKISSON RESERVOIR



WINTER
RUN

HA-1984
HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO S 13A~~

- BRIDGE NO. 12004 OVER WINTERS RUN
- VIEW LOOKING SOUTH ON MD
BUSINESS ROUTE 1

1/6



HA-1984
HARFORD COUNTY, MD
JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ JHR

- BRIDGE NO. 12004 OVER WINTERS RUN
- VIEW LOOKING NORTH ON MD
BUSINESS ROUTE 1

2/6



HA-1984
HARFORD COUNTY, MD
JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ S 17A

- BRIDGE NO. 12004 OVER WINTERS RUN
- VIEW LOOKING EAST

3/6



HA-1984
HARFORD COUNTY, MD
JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO~~ SHT

- BRIDGE NO. 12009 OVER WINTERS RUN
- VIEW LOOKING WEST

4/6



HA-1984
HARFORD COUNTY, MD

JOHN TARQUINIO

26 JAN 1995

~~MARYLAND SHPO SHA~~

- BRIDGE NO. 12004 OVER WINTERS RUN
- VIEW FROM BRIDGE 12004 EAST
TO BRIDGE H53

5/6



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ESTABLISHED ...
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HA-1984
HARFORD COUNTY, MD

JOHN TARQUINO

26 JAN 1995

~~MARYLAND SHRD~~ SHA

- BRIDGE NO. 12004 OVER WINTERS RUN
- VIEW OF PLAQUE ON EAST PARAPET

6/6