

ORIGINAL AIRPORT ENTRANCE OVERPASS  
(Mt. Vernon Memorial Highway Bridge No. 6)

HAER No. VA-92

George Washington Memorial Parkway, spanning prior Airport Entrance Rd. at National Airport  
Arlington Vicinity  
Arlington County  
Virginia

HAER  
VA  
7-ARLV,  
8-

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

PHOTOGRAPHS

HISTORIC AMERICAN ENGINEERING RECORD  
National Park Service  
Department of the Interior  
P.O. Box 37127  
Washington, D.C. 20013-7127

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I. INTRODUCTION

- Location: On grounds of National Airport, under the elevated Airport Metro Station, Arlington County.
- Date of Construction: 1930-1931. Demolished in February, 1994.
- Type: Reinforced concrete spandrel-filled arch bridge.
- Designers: Bureau of Public Roads.  
Gilmore D. Clarke, Consulting Landscape Architect.  
J. V. McNary, Senior Bridge Engineer.  
N. D. McDowell, Resident Engineer.
- Contractor: Merritt-Chapman and Scott Corporation of New York.
- Present Use: Obsolete when parkway was rerouted to the west of National Airport. Part of internal circulation of airport until demolition in 1994.
- Significance: The Original Airport Entrance Overpass is one of the twelve original bridges of the Mount Vernon Memorial Highway (MVMH).
- Project Information: Documentation of the George Washington Memorial Parkway and Clara Barton Parkway was undertaken as a multi-year project by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER), a combined division of the National Park Service, Robert Kapsch, Chief. The project was sponsored by the Park Roads Program of the National Park Service, John Gingles, Deputy Chief, Engineering and Safety Services Division. The Project Supervisor was Sara Amy Leach, HABS Historian. Bridge reports were prepared by Elizabeth M. Nolin (1988); Michael P. Kucher (University of Delaware, 1993); and Jennifer P. Wentzicn (University of Washington, 1994).
- HABS Report No. VA-69 prepared by Timothy Davis (University of Texas) provides an overview history of the entire parkway project. Jack E. Boucher and Jet Lowe produced the large-format photographs. The Washington-based summer 1994 documentation team was headed by landscape architect Tim Mackey (Harvard University, Graduate School of Design).

## II. HISTORY

The Mount Vernon Memorial Highway (MVMH) was completed in 1932 and became the first segment of the George Washington Memorial Parkway (GWMP). The Original Airport Entrance Overpass, referred to in the original drawings as Overpass, Entrance to Proposed Airport, was completed in 1931 in anticipation of National Airport. In 1939 and the expansion of Gravelly Point Airport, now National Airport, led to the first significant realignment of the highway. The overpass became a part of internal airport circulation without ever being used by the MVMH. It was demolished in February 1994.

The office of Gilmore Clarke, Consulting Landscape Architect, prepared bridge elevations for the original twelve structures. Clarke was influential in shifting the emphasis of the overall parkway design from a traditional boulevard to that of a motor parkway, such as had been recently developed for the Westchester County Park System. This shift led to the use of more informal designs intended to subordinate the bridges to the surrounding landscape. The following quotation suggests Clarke's wider vision for parkway structures.

"Bridges in the country and in naturalistic parks may take on a more rustic appearance. The more rugged the scenery and the surroundings, the more rustic may be the bridge. A bridge, more than any other structure built by man, should harmonize with its surroundings and form a suitable element of the larger composition of which it is to become a part."<sup>1</sup>

The bridges were presented to the Commission of Fine Arts on December 12, 1929 and approved.

### Technical Description

The Original Airport Entrance Bridge was a reinforced concrete spandrel-filled arch with a 50' foot span. The arch had a 13' rise with a spring line 6' above ground level. The overall length was 120' including wing walls. The reinforced concrete deck measured 66' wide.

The foundations were comprised of abutments resting on 368 precast concrete piles, which were cast on site by the contractor. Wing walls and abutments were faced with native stone masonry which was specified as a mixture of granite and mica-schist. The mica schist was quarried locally by the Stoneyhurst Quarries, near Cabin John, MD. A light-grey granite was used in locations specified as dimensioned masonry. Dimensioned masonry was used for quoins, copings, piers, and ring courses. The arch was Class "A" concrete with an average compressive strength of 3720 pounds per square inch.<sup>2</sup> The bridge was designed to meet standard H-20 loading requirements of the American Association of State Highway Officials. The Division of Tests of the Bureau of Public Roads at Arlington Farm, Virginia performed most materials testing, with the exception of stone masonry which was inspected on site. Final construction costs were reported at \$94,417.05.<sup>3</sup>

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<sup>1</sup>Gilmore Clarke, "Architecture of Short Span Bridges," The Rigid Frame Bridge, p. 227.

<sup>2</sup>Final Report, Unit III, Bridges, p. 19. The average 28-day strength of test cylinders of Class A concrete.

<sup>3</sup>J. V. McNary, "Final Report: Bridges," 194.

### III. SOURCES

Hayden, Arthur G. The Rigid Frame Bridge. 1931. 3rd edition, 1950. Article by Gilmore D. Clarke, "The Architecture of Short-Span Bridges," pp. 219-240.

Plans for Proposed Project MT. VER. HB.#4. Microfiche reductions of original construction drawings on file at the Bridge Inspection office of the, Eastern Federal Lands Highway Division, Federal Highway Administration, Sterling Virginia.

U.S. Department of Agriculture, Bureau of Public Roads, "Mount Vernon Memorial Highway Final Construction Report, Unit III, Bridges," 1932; report prepared by J.V. McNary; Box 1399; 420 General Virginia- 1926-1929; Bureau of Public Roads Classified Central File 1912-1959, Record Group 30; National Archives at College Park.

This bound but unpublished typescript includes an overview and a detailed account of the construction of each bridge. It also includes about sixty photographs of bridges both under construction and in their completed condition.

U.S. Department of Agriculture, Bureau of Public Roads. Construction Photographs of Mount Vernon Memorial Highway. 1930-32. Record Group 30-N, Boxes 241, 242. Still Pictures Division, National Archives and Records Administration, Archives II, College Park, Maryland.

U.S. Department of the Interior, Historic American Buildings Survey (HABS), No. VA-69, "George Washington Memorial Parkway," 1994. Prints and Photographs Division, Library of Congress, Washington D.C.