The City of Seattle

Landmarks Preservation Board

400 Yesler Building Seattle, Washington 98104 · (206) 625-4501

LPB-311/80

REPORT ON DESIGNATION

Name of Property: The George Washington Memorial Bridge (The Aurora Bridge)

Legal Description: Aurora Ave. North over Lake Washington Ship Canal; City Bridge Engineer's File #11.

At its Public Hearing held on July 16, 1980 the City of Seattle's Landmarks Preservation Board voted to approve the designation of the George Washington Memorial (Aurora) Bridge as a City of Seattle Landmark based upon satisfaction of the following criteria for designation, Ordinance 106348:

> *Section 3.01 (3) It is associated in a significant way with a significant aspect of the cultural, political, or economic heritage of the community, city, state or nation;*

The construction of this Bridge was an important, economic development in conjunction with other highway/roadway improvements in providing north-south expansion of the city; facilitating north-south traffic flow and direction; and improved linkage with major highways running the length of the state.

> *Section 3.01 (4) It embodies the distinctive visible characteristics of an architectural style, or period, or of a method of construction;*

The Bridge is an excellent, well designed and executed example (and the best in the City) of a cantilevered structure, with an ellipitical main arch where top chord (and of the ancillary arches) provides the roadway deck. This bridge, in contrast to later structures (such as the I-5 bridge nearby) demonstrates unified design of all its elements, including its cantilevered arches, roadway, piers and approaches.

Section 3.01 (6) Because of its prominence of spatial location, contrasts of siting, age, or scale, it is an easily identifiable visual feature of its neighborhood or the city and contributes to the distinctive quality or identity of such neighborhood or the city;

The Bridge is strikingly situated, spanning the canal between Queen Anne Hill and Fremont/Wallingford; its siting is additionally significant because of the bridge location as an archway or gateway at the confluence of Lake Union and the westerly portion of the canal. From Lake Union and its surrounds, and from Capitol Hill and the University District it is a dominant, attractive visual and physical landmark-- a real contribution to the city scape.

The features of the Landmark identified for preservation include the entire bridge structure, and approaches, and do not include any portion of land or waterway underneath.

Issued, July 28, 1980

Earl D. Layman, City Historic Preservation Officer

RD:dn

LPB-49/80

City of Seattle
Department of Community Development/Office of Urban Conservation

Landmark Nomination Form

Name George Washington Memorial Bridge **Year Built** 1932
(Common, present or historic) "Aurora Bridge"

Street and Number Aurora Avenue North over Lake Washington Ship Canal

Assessor's File No. City Bridge Engineer's File #11

Legal Description **Plat Name** _____ **Block** _____ **Lot** _____

Present Owner State of Washington **Present Use** vehicular traffic bridge over waterway

Address _____

Original Owner State of Washington **Original Use** same

Architect Washington State Highway Department
Samuel J. Humes, Director
T.G. McCrory, Chief Engineer
R.M. Murray, Resident Engineer
Jacobs & Ober, designers under Humes.

Builder substructure: Pacific Bridge Co Portland
superstructure: U.S. Steel Products Corporation
approaches: N.Nygren, Seattle

Description: Present and original (if known) physical appearance and characteristics

The George Washington Memorial Bridge, a structural steel cantilever deck bridge, was dedicated on February 22, 1932 by President Herbert Hoover via the golden telegraph key, and has been known ever since as the Aurora Bridge. Two hundred drillings into the substrata below Lake Union at 5 potential crossings showed conditions best for its erection at the Aurora Avenue location. Designs by the consulting firm of Jacobs and Ober for through cantilever bridges, suspension bridges and cantilever arch bridges were submitted to Samuel J. Humes, state highway director before the latter form was agreed upon.

The cantilever bridge is constructed by first establishing the piers on piles driven to bedrock (which is variable and quite deep in places below Lake Union's muddy bottom. From these reinforced concrete piers, the steel superstructure is built outward in both directions in a subtle balancing act. The shoreward cantilever, constituting half an arch is made firm to an anchoring pier; the two 325-foot lakeward projections are connected by a separate 150-foot suspended span which is hoisted into place between them and fastened. The resultant arch is elliptical, with a variable radius, built up of Warren trusses with subdivided panels. The top chord of the truss is the roadway deck, the total length of which is 1450 feet.The 1200-foot long north approach, a steel span extending inland from the north anchor pier, and the 500-foot south approach, of steel and concrete supported by concrete bents, added to the 3 main spans, give a total bridge length of approximately 3150 feet. The high water clearance under the center of the arch meets the War Department standard of 135 feet, high enough for most conventional ships but prohibiting Lake Union access to the high-masted schooners, known affectionately by Seattle residents as the "tall ships". Slotted reinforced concrete piers of cruciform section form the anchoring piers and carry the approach girders at both ends. The gothic arch

Statement of significance

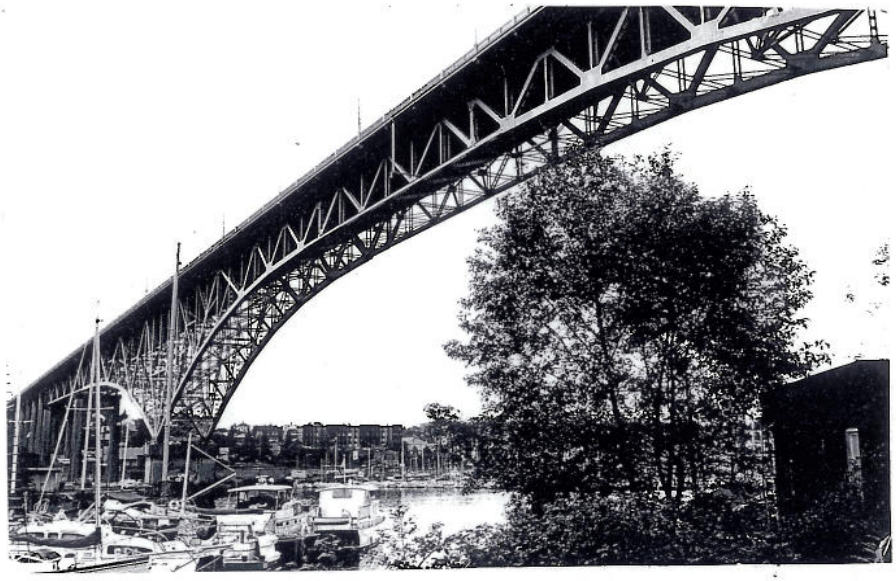
The George Washington Memorial Bridge was the first large-scale highway bridge linking the central area of Seattle with the expanding residential districts to the northwest, and connecting into the highway 99 complex. The three moveable bridges built in 1917-1919 (Ballard, Fremont and University), and the Montlake Bridge (1927) had previously handled all north-south traffic over the waterway and were rapidly being overwhelmed by the volume of automobile traffic. The Aurora Bridge is the first fixed span bridge allowing unobstructed passage of most conventional watercraft. The demise of the streetcar in Seattle was foreshadowed in this bridge, the first to be built without tracks.

Description: Present and original (if known) physical appearance and characteristics

form of the north side piers creates an unusual umbrella over a short stretch of uphill street.

In his authoritative two-volume Bridge Engineering of 1916, J.A. L. Waddell describes the cantilever bridge as developed at the time as "uncompromisingly ugly". Subsequent advances in the art and science of bridge design have resulted sixteen years later in a bridge form which derives an aesthetic from its pure expression of functionality.

Photographs:



Submitted by: Elizabeth Shellin Atly

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Date January 2, 1980

Reviewed _____ *Date* 29 Jan 1980
Historic Preservation Officer