



LPB-42/80

City of Seattle

Department of Community Development/Office of Urban Conservation

Landmark Nomination Form

Name Salmon Bay Bridge (Burlington North Railroad Bridge) **Year Built** 1914
(Common, present or historic) Salmon Bay change-of-line
Bridge #4, Ballard

Street and Number Railroad over Lake Washington Ship Canal- Magnolia to Ballard

Assessor's File No. Burlington Northern

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

Present Owner Burlington Northern **Present Use** train traffic over canal

Address _____

Original Owner Great Northern Railway Co. **Original Use** Railroad bridge

Architect _____ **Builder** _____

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

Built by the Great Northern Railroad Company across Salmon Bay in 1913-14, the Salmon Bay Bridge, also known as Salmon Bay change of line and Bridge #4 - Ballard, consists of a Strauss heel-trunnion single-leaf bascule bridge on the north span and a through Warren truss simple span to the south. The bascule when lowered becomes a simple span also under the weight of the moving load, the simple span being the sturdiest for railroad use.

The superstructure is entirely of steel except for the concrete counter-balance which activates the opening and closing of the bascule. The substructure supporting the counterweight member is of steel trusswork with cross-bracing. The other piers are double concrete columns supporting the southern span as well as the lowered end of the moveable span. The approaches are of plate girder construction on solid flat reinforced concrete piers. A small two-story frame house is attached at track level to the northeast corner of the operable span, housing the mechanism for raising and lowering the bascule.

The span is left open, to be lowered only at designated times for a train crossing on one of its two tracks. The shifting of weight from the counter-balance to the truss is activated by changing the angle in a parallelogram formed by certain of its members such that the entire end of the structure appears to be unfolding as a jackknife, hence the nickname "jackknife bridge" for the Strauss bascule.

Not a particularly aesthetic structure, this is a dramatic example of an age of development in engineering in which function and movement predominated over concerns of form.

Statement of significance

One of the dominant factors involved in the emergence of certain American cities as hubs of commercial activity was the location of railroad terminals. Cities such as Port Townsend, Tacoma and Bellingham, in vying for commercial and cultural eminence, undertook optimistic developmental schemes in anticipation of hosting the terminus to the railroad lines from the East. Seattle's location in the protected harbor of Puget Sound ultimately resulted in its selection as the railroad center that would not only receive the incoming commerce from the vast East but would also connect with foreign markets through sea trade as well as by extension of the railroad to meet trans-Canadian rail lines.

Crucial to this development was the spanning of the waterway that would cut through Seattle from west to east upon completion of the Lake Washington Ship Canal. With the advent of faster and more direct means of transport for goods and people and the consequent diminution of the role of the railroad in recent decades, the number of bridges of this type has been significantly reduced.

The Salmon Bay Railroad Bridge remains as the only railroad bridge across the Canal and continues to be a vital link in spite of vastly curtailed traffic. Although its counterpart on the Duwamish Waterway, erected three years earlier, has the distinction of being the first Strauss heel-trunnion single-leaf bascule bridge west of Chicago, the line served by the only remaining bridge over the ship canal was and still is critical to the ongoing eminence of Seattle as the center of commerce for the Pacific Northwest.

Photographs:



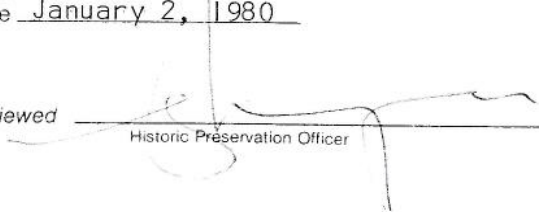
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Date January 2, 1980

Reviewed


Historic Preservation Officer

Date

29 Jan 1980