

Freeport Bridge

Score: 78



This profile was researched and written by Elizabeth Waters Heinrichs "Heritage Property Report for Heritage Kitchener: Freeport Bridge," Kitchener, Ontario, July 1998.

Documentation

Builder

The engineer responsible for the design of Freeport Bridge was A.B. Crealock, the Bridge Engineer for the Province of Ontario. Crealock rose from draughtsman to Bridge Engineer in one year (1922-1923). As the Bridge Engineer for the Province, he was responsible for the design of many bridges of the period. Although the position may appear prestigious, at \$2,300 per annum in 1924, the salary was only equivalent to that of the senior draughtsman. By 1927, Crealock's salary had risen to \$2,850.¹ The actual provincial supervision of the building of the bridge was provided by G.A. Downey, of Stratford, who supervised highway construction in this area.²

The contract for the construction was awarded to Campbell and Lattimore, of Toronto, according to the journal "Canadian Engineer".³ However, the payments for the bridge work were made to Campbell and Gzowski, the company that held the contract for concrete work on Hamilton to Kitchener projects. As a matter of public record, they were paid \$27,427.44 in 1925 and then \$20,291.61 in 1926 for their work on the "Freeport Bridge in the Township of Waterloo".⁴ Aside from the payments to the construction company, there were other associated costs. Grading land for the approaches to the bridge and the purchase of rights-of-way raised the total cost of the bridge to an estimated \$85,000.⁵ Although a relatively small sum by today's standards, the total cost of provincial highway work - including bridges - for 1925, in the County of Waterloo, was \$126,146.33.⁶

Age

Construction of the Freeport Bridge began in 1925 and the bridge was open for traffic in 1926. The age is verifiable through the *Ontario Legislative Assembly Sessional Papers*, as well as through other contemporary sources.

Technology

Materials

The bridge is constructed of reinforced concrete, a popular building material of the time. Concrete construction began to replace steel for many road bridges since it required less maintenance than steel, which was prone to corrosion and needed frequent painting. Areas such as Waterloo County and neighbouring Wellington County also had good local supplies of aggregates for use in construction. In the case of the Freeport Bridge, it was estimated at the time that

¹*Ontario Legislative Assembly Sessional Papers*, Public Accounts for the years 1922-23 p. 130, and 1927, p. K10.

²*Sessional Papers*, Public Accounts 1926, p. K29.

³*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

⁴*Sessional Papers*, Public Accounts 1926, p. K29; Public Accounts 1927, p. L10. Since the discussion papers regarding the awarding of the contracts are not available in printed form, it is not possible to provide further information without visiting the Ontario Public Archives.

⁵*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

⁶*Sessional Papers*, Public Accounts 1926, p. K10.

"approximately 3,000 yards of concrete [were] poured, which required 150 tons of reinforcing steel and 4,500 barrels of cement".⁷

Design/Style

The Freeport bridge is a bowstring truss bridge with seven spans and six piers. This type of bridge was built mostly during the first third of the 20th Century. It is a good example of the period that saw a move away from steel truss bridges to concrete truss bridges. It represents a newer material use but an older engineering design. (By the early 1930s, there was both a newer design concept - the rigid frame bridge - and the use of the newer material).⁸

Prototype

For the 1920's, the six-foot wide sidewalk on the west side of the bridge was a unique feature on bowstring truss bridges. Although the same sidewalk is seen on the later Bridgeport Bridge, it was a new innovation at Freeport. According to the *Canadian Engineer*, this sidewalk was "a new feature in rural bridge design".⁹

Structural Integrity

This bridge remains essentially as it was at the completion of construction, although there have been some modifications made to the deck material and various repairs over the years. Although it is in need of further repairs, the 1993 Municipal Bridge Appraisal concluded there was "no serious evidence of structural distress" at the time.

(Note: A complete rehabilitation of the bridge was undertaken in 2003.)

Bridge Aesthetics and Environment

Visual Appeal

This is a very attractive bridge, which has strong visual appeal when viewed from the bridge itself or from the riverbanks.

Integrity

There is a high degree of integrity since the bridge is in its original location and retains its original visual characteristics.

Landmark

Freeport Bridge is well known locally as a distinctive bridge and is certainly one of the older bridges in the City of Kitchener.

Gateway

Although many people now approach the City on the newer part of Highway 8, this bridge does have a clear gateway function for those who use King Street, the old Highway 8.

Character Contribution

The bridge adds significantly to the attractiveness of the older part of Highway 8.

⁷*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

⁸Discussion of this progression can be found in David Cuming, *Discovering Heritage Bridges on Ontario's Roads*, (Ontario: Boston Mills Press, 1988) part 2, particularly pp. 51-56.

⁹*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

Historical Association

The Freeport Bridge is important historically because it is a part of the provincial highway upgrading which was undertaken after the Great War, in order to accommodate the rising popularity of the automobile. It represents an era which saw the rise of personal and leisure travel in an area which, only one hundred years before, had seen the first settlers.

As recently as 1992, the *Kitchener Waterloo Record* ran an article about a local resident who remembered the building of the bridge. Charlie Gottfried lived in the small house on the southeast bank of the river. The traffic on King Street (Highway 8) passed to the front of the house and the rail traffic passed to the back of the house. He recalled how he had made 50 cents per week selling water to the labourers who worked on the bridge. Some of those same labourers were Polish immigrants who, lacking other accommodation, dug caves in the riverbank and slept there wrapped in burlap.¹⁰

The present day Freeport area has long been an important crossing area for the Grand River. The present bridge is slightly downstream from the original fording place and is the fourth successive bridge in that approximate location. In 1820, the first bridge, a wooden structure, was erected to allow crossing when the water was too high to ford. Subsequently, another wooden bridge replaced that one in 1865, and beams from the second bridge were known to be in a barn in Preston (Cambridge) as late as the 1960s. Around 1880, the last wooden bridge was replaced with a steel bridge, which was the first one built in the county. When the steel bridge was taken down in order to build the present concrete bridge, two spans went to Woolwich Township and one to Wellesley.¹¹

In the 19th century, there was a significant settlement in the area of the Freeport Bridge, but little remains today apart from the older house on the southeast bank. However, the Region's bomb shelter/command centre, for local officials in the event of nuclear war, can be seen on the northwest bank close to the bridge. In spring and summer, there are many varieties of local wild flowers growing on the riverbanks in the area of the bridge. It also marks a popular local fishing spot.

Bridge Group

Freeport Bridge is one of a group of four bridges, two of which are in Kitchener, one in Cambridge and one in Caledonia. All were erected in a similar time period and are similar in style. They all represent part of the upgrading process that occurred between the Great Wars in this Province.

(Note: The Freeport Bridge was designated as a heritage structure by the City of Kitchener in 2003.)

¹⁰*Kitchener-Waterloo Record*, "Freeport Bridge Holds Many a Tale," September 20, 1992.

¹¹*Waterloo Historical Society Journal*, R.S. Oberholtzer, "One Hundred and Fifty Years of Change Along the Preston-Kitchener Roadway," Volume 51, 1963, pp. 80-81.

Freeport Bridge

Location MTO Site No. 33-136, King Street East, 0.2 km north of Riverbank Road, City of Kitchener.

General Information

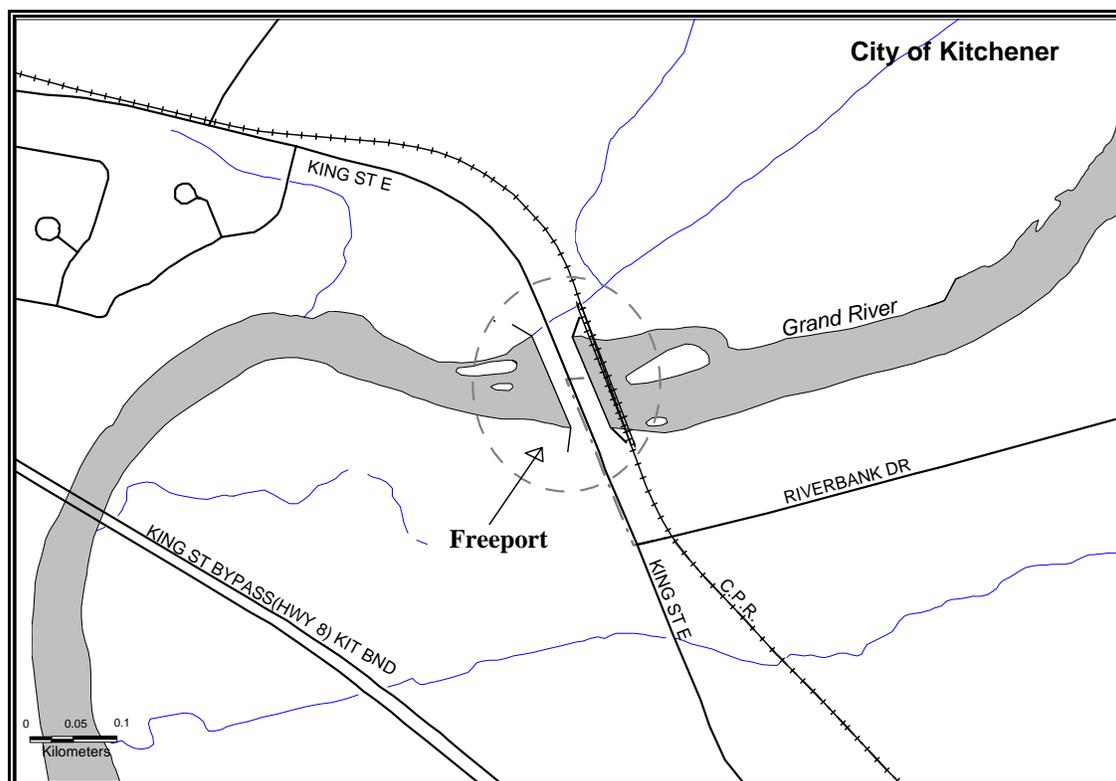
<i>Bridge No.</i>	000807
<i>Jurisdiction</i>	Regional Municipality of Waterloo
<i>Year built</i>	1926
<i>Drawings</i>	Regional HQ

Physical Components

<i>Type</i>	Concrete Bowstring
<i>Spans</i>	7
<i>Dimensions</i>	Length 160.1 m Width 22.1 m
<i>Load Limit</i>	None posted

Descriptive details

This is a seven-span, concrete, bowstring arch bridge, with a concrete deck and asphalt wearing surface. This bridge represents the next step in bridge evolution, the highway bridge. This bridge crosses the Grand River along the Kitchener/Cambridge border. There are three bowstring bridges in the Region: Freeport, Bridgeport, and Main Street Bridge in downtown Galt. The bridge was completed rehabilitated in 2003.

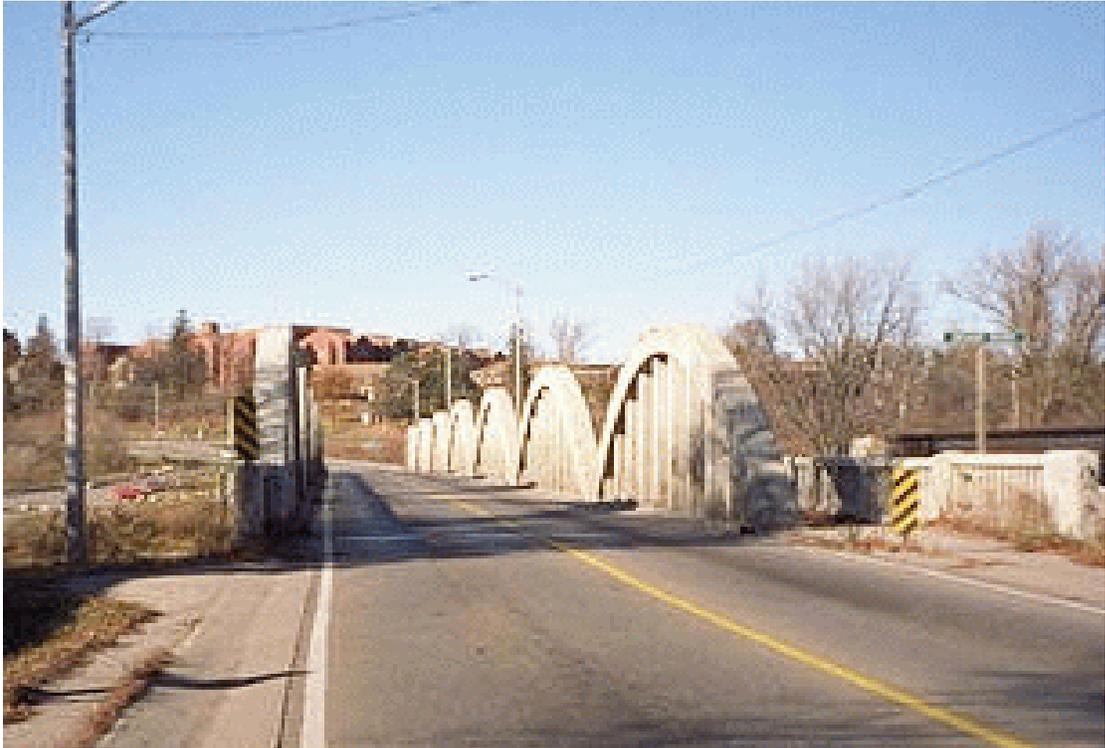


Freeport Bridge

North View



South-East View



Freeport Bridge Bibliography

"Concrete Highway Bridge at Freeport, Ont." Canadian Engineer, 30 March 1926.

"Decay." K-W Record. 18 August 1972. Photograph

"High wires." K-W Record. 16 July 1987. Photograph

"Juggling act gets everybody running." K-W Record. 18 Dec 1981. Photograph

"New Freeport Bridge Recalls Near- Tragedy." K-W Record. 7 Sept.1963. Photograph

"Repairs under way." K-W Record. 11 July 1973. Photograph.

"Start Work to End Freeport Hazard." K-W Record. 9 Oct. 1953. Photograph

"The Lion and the Lamb." K-W Record, 15 May 1978. Photograph

"Township of Waterloo the first far-inland Settlement in Upper Canada" WHS. 1922, 219.

"Woolwich Township Council: By-Law No. 3, 21. Feb. 1850." Waterloo Historical Society (WHS), Waterloo, Ontario. 1961, 39.

Breithaupt, W.H. "The 'Canada' Museum" WHS. 1939, 66.

Caldwell, B., "Freeport Bridge holds many a tale." K-W Record, 30 Sept. 1992. Photograph

Cuming, D. Discovering Heritage Bridges on Ontario's Roads, Ontario: Boston Mills Press, 1988.

Heinrichs, E. "Heritage Property Report for Heritage Kitchener, Freeport Bridge" Kitchener, Ontario, July 1988.

Canada. Ontario Legislative Assembly Sessional Papers, Public Accounts for the years 1922-23 p130, 1927 p. K29.

Jaffray, P.J. The highly industrialized and strikingly beautiful Grand River Valley, Galt: Jaffray, 1932: 43.

Oberholtzer, R.S. "One Hundred and Fifty years of Change along the Preston-Kitchener Roadway", WHS, 1963 p. 81.

Panabaker, D.N. "Town of Hespeler" WHS, 1958, 33.

Schmidt, J. & Taylor, A. "The Electric Railways", WHS. 1956, 30.

Sherk, M.G., "Reminiscences of Freeport" WHS. 1924, 104. _