MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Historic Bridge Study - Phase III

Minneapolis, Hennepin County, Minnesota

SHPO Inventory Number HE-MPC-5152

Review and Compliance Number

Form (New or Updated) New

Identification

Historic Name Bassett Creek Tunnel, Bridge 94247

Current Name Bassett Creek Tunnel, Bridge 94247

Field #

Address West River Parkway over Bassett Creek

City/Twp Minneapolis

County Hennepin

Legal Desc. **Twp** 29N **Range** 24W **Sec** 22 **QQ** NWNE

USGS Quad Minneapolis South

UTM **Zone** 15 **Datum** 83

Easting 478383 **Northing** 4981900

Property ID (PIN)

Description

Linear Feature? Yes

HPC Status

Resource Type Structure

Architect/Engineer Unknown

Style N/A

Construction Date c.1890

Original Use Infrastructure/Drainage Tunnel

Current Use Infrastructure/Drainage Tunnel

Description

Bridge 94247 is a 100-foot-long portion of a larger 275-foot-long culvert that carries Bassett Creek near its outlet to the Mississippi River in Minneapolis, Minnesota. The 100-foot-long segment corresponds to the portion of the culvert that passes under the West River Parkway right-of-way and is therefore subject to bridge inspection. The 275-foot-long culvert was constructed c.1890 to allow railroad tracks to be laid over Bassett Creek. It was later incorporated as a part of the 1.5-mile-long Bassett Creek Tunnel, which was constructed in stages during the early twentieth century to carry Bassett Creek waterflow underground through urbanized portions of northwest Minneapolis. This evaluation covers the 275-foot-long culvert, as it is a historically distinct segment of the Bassett Creek Tunnel that significantly predates other tunnel segments.

The culvert consists of a semicircular stone masonry arch supported on stone masonry abutments that rest on timber pilings. Under the West River Parkway right-of-way, the culvert has been covered with non-historic shotcrete sprayed on a reinforcement web of welded wire mesh. The arch barrel has an inside diameter of 22 feet at the arch's spring line. The overall out-to-out width of the tunnel, including the abutments, is 30 feet, 8 inches. Tunnel repair plans from the 1940s and the 1980s indicate the tunnel's height is 14 feet, 6 inches from the base of the abutments. The top of the bridge's arch barrel is located about 15 feet below surface grade. The Minnesota Department of Transportation (MnDOT) bridge inspection records list the bridge's construction date as 1915. However, additional research indicates that the portion of the Bassett Creek Tunnel at the Bridge 94247 location was likely built around 1890. The only visible portion of Bridge 94247 is a stone masonry headwall at the culvert outlet, about 75 feet east of West River Parkway. The headwall is composed of ashlar masonry blocks. Short flared wingwalls extend outward from the headwall. Due to surface cracking and spalling, the masonry now has a rusticated appearance.

EVALUATION AND ANALYSIS

Historical Context

Minnesota Masonry-Arch Highway Bridges, 1870-1945

Historical Narrative

Bridge 94247, located just north of downtown Minneapolis, carries Bassett Creek underneath the West River Parkway. The creek was named after Joel Bassett, who in 1852 established a farm at the creek's mouth into the Mississippi River. Within a few years Bassett sold his land and it was platted into lots, as Minneapolis developed northward. After the Civil War, the Minneapolis riverfront became increasingly industrialized with mills, factories, and warehouses. A shingle mill was constructed along the river just south of Bassett Creek in 1867, and other sawmills and industrial establishments soon followed, replacing residential development in the area. In 1880 the Chicago, St. Paul, Minneapolis and Omaha Railway (the "Omaha Road") constructed its expansive North Minneapolis rail yards south of Bassett Creek. The yards soon expanded to the north side of the creek, with two timber trestles constructed to carry the Omaha Road's yard tracks over Bassett Creek. The trestles were replaced c.1890 by a 275-foot-long "culvert" that essentially channelized and covered Bassett Creek through the Omaha Road railyards, allowing for placement of several sets of tracks across the creek. Existing Bridge 94247 is likely a portion of the c.1890 culvert; however, no specific documentary evidence is available to confirm this association. Bassett Creek tunnel repair project plans from the 1980s and 1990s state that the portion of the tunnel under the old Omaha Road yards was "ancient" and predated 1913. By 1892 Bassett Creek had been similarly channelized and covered farther upstream between First Avenue North and Second Avenue North to allow construction of the St. Paul and Northern Pacific railyards adjacent to the Omaha Road's facilities.

As early as the 1870s Minneapolis city leaders worried over Bassett Creek sanitation issues, as the creek gradually turned into an open sewer drain and trash dump for nearby industries and for newly urbanized areas north and west of downtown. Over a period of several decades the lower reaches of Bassett Creek were straightened, channelized, and eventually covered in an effort to prevent disease and contamination. Between 1913 and 1936 the City of Minneapolis (City) completed a series of projects upstream of the railroad culverts, covering the creek in the most developed areas. By 1936 a 1.5-mile stretch of the creek was fully covered in a series of culvert-like tunnels, lined with stone masonry and/or concrete. The c.1890 Omaha Road railroad culvert remained in use carrying Bassett Creek waterflow.

Other than periodic maintenance and inspection, present-day Bridge 94247 served its basic function into the late twentieth century with few alterations. In 1971 the Chicago and North Western Railroad, which had absorbed the Omaha Road, closed the North Minneapolis yards and removed the tracks from the Bassett Creek area. In the mid-1980s the Minneapolis Park and Recreation Board extended the West River Parkway along the west bank of the Mississippi River northward through the Bassett Creek area. The parkway was designed as a two-lane roadway flanked with trees and park-like landscaped areas. The portion of the culvert underneath the West River Parkway was designated as a bridge for purposes of bridge inspection and maintenance.

Stormwater drainage from the West River Parkway was funneled into a concrete pipe culvert that led underground to the Bassett Creek tunnel. A 24-inch-diameter hole was drilled through the tunnel's arch to provide a conduit for the concrete pipe culvert to empty into the waterway. In February 1989 a routine bridge inspection found that a nearby portion of the limestone arch vault at Bridge 94247 had failed, allowing a considerable amount of fill to wash into the tunnel opening. The

fill restricted about one-third of the tunnel's diameter. With several portions of the Bassett Creek tunnel deteriorating, the City initiated repairs to the tunnel at several locations where it passed under public roadways. These repairs took place in at least two separate projects in the mid-1990s. The repairs entailed application of a 6-inch-thick layer of sprayed concrete (also known as shotcrete) over the stone masonry arch and abutments. The shotcrete was sprayed onto a reinforcing web of welded wire mesh, attached to the stone masonry by bolts inserted into the mortar joints. In response to the deterioration of the Bassett Creek tunnels and culverts, numerous public agencies collaborated to construct a diversion tunnel redirecting much of the Bassett Creek waterflow into a new underground concrete structure through downtown Minneapolis. The new tunnel was built in phases between 1979 and 1992. Bridge 94247 now carries only local drainage and runoff, rather than drainage from the entire Bassett Creek watershed.

Significance

Bridge 94247 is a 100-foot-long portion of a 275-foot-long culvert constructed c.1890 to carry railroad tracks over Bassett Creek. Bridge's 94247 boundaries correspond to the portion of the culvert that passes under the West River Parkway extending to the headwall at the culvert's outlet. However, the most appropriate scope for National Register of Historic Places (National Register) evaluation is the entire 275-foot structure. The culvert is located within the boundaries of the National Register-listed St. Anthony Falls Historic District. The tunnel was not mentioned in the original 1971 National Register Nomination, nor in the 1992 additional documentation that clarified appropriate district boundaries and evaluated the contributing/noncontributing status of 138 resources within the district. Nonetheless, a basic evaluation of the tunnel's potential significance within the context of the St. Anthony Falls Historic District is possible.

The 1988 "Minnesota Masonry-Arch Highway Bridges, 1870-1945" Multiple Property Document Form (Masonry Arch MPDF) specifically excluded from evaluation several Hennepin County structures "…which functioned, more properly, as sewer tunnels than as bridges." Bridge 94247 certainly falls within this category; however, the Masonry Arch MPDF is nonetheless useful in identifying potential *Criterion C* significance and is particularly valuable for understanding the impacts of alterations to the integrity of a masonry arch bridge.

The culvert was evaluated for its potentially significant association to the St. Anthony Falls Historic District. Its original c.1890 construction relates directly to the industrialization of the Minneapolis riverfront, typified by establishment of sawmills, flour mills, and railyards in the area. Other resources related to the Omaha Road, such as the extant 1880 freight depot and the archeological remains of the 1891 roundhouse, are considered contributing to the historic district. The culvert therefore appears to have significance as a contributing resource to the St. Anthony Falls Historic District under *Criterion A* in the area of *Industry* and *Criterion C* in the area of *Engineering*.

The culvert was also evaluated for individual significance using the Masonry Arch MPDF as a guide to understand potential avenues and thresholds for significance. The Masonry Arch MPDF notes that masonry arch bridges generally lack *Criterion A* or *Criterion B* significance on an individual basis and are most commonly significant under *Criterion C* as a representative of a type, period, or method of construction. Bridge 94247 does not meet the any of the five basic technical or aesthetic accomplishments needed to meet *Criterion C* registration requirements as defined in the Masonry Arch MPDF: demanding arch configuration such as a highly skewed design, unusual arch shape (other than semicircular or segmental), high rise-to-span ratio (greater than 1-to-5), longer-than-average span length (over 30 feet), and special architectural design or exceptionally fine masonry work. Given its original intent and later use, the culvert does not meet other *Criterion C* registration requirements specifically tailored for application to highway bridges. Based on this analysis, it is not significant on an individual basis.

Research did not yield any evidence of individual significance under *Criterion B.*

Integrity

The culvert that includes Bridge 94247 exhibits substantial alterations; however, these modifications are limited to a relatively small and obscured portion of the structure. The structure remains in its original location and carries a transportation route over Bassett Creek, and therefore retains integrity of location and association. The area surrounding the culvert has been converted to mixed-use development and open space along the parkway, compromising the structure's integrity of setting. The 100-foot-long section of the culvert directly under the West River Parkway has been altered through application of shotcrete to the masonry arch barrel. However, the majority of the structure's original stone masonry arch and abutments remain intact without alterations. Importantly, the stone masonry headwall and adjacent portions of the masonry arch, the only portions of the structure that are easily visible, exhibit no alterations. The culvert retains integrity of design, materials, workmanship, and feeling.

Recommendation

The culvert is significant as a contributing resource to the St. Anthony Falls Historic District. While some alterations are present, it retains sufficient integrity to convey its contributions to the character of the historic district. Therefore, the 275-foot-long culvert, which includes Bridge 94247, is recommended eligible for the National Register as a contributing resource of the St. Anthony Falls Historic District. The structure does not meet registration requirements for significance on an individual basis.

Sources

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———. *Mn/DOT Structure Inventory Report, Bridge ID 94247 West River Pkwy over Bassett Creek*. Structure Inventory Report, January 18, 2016.

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Consultant's Recommendation of Eligibility

Not eligible – Individual; Contributing to Listed Historic District

Prepared By

Mead & Hunt, Inc.

Date Surveyed

01/11/16

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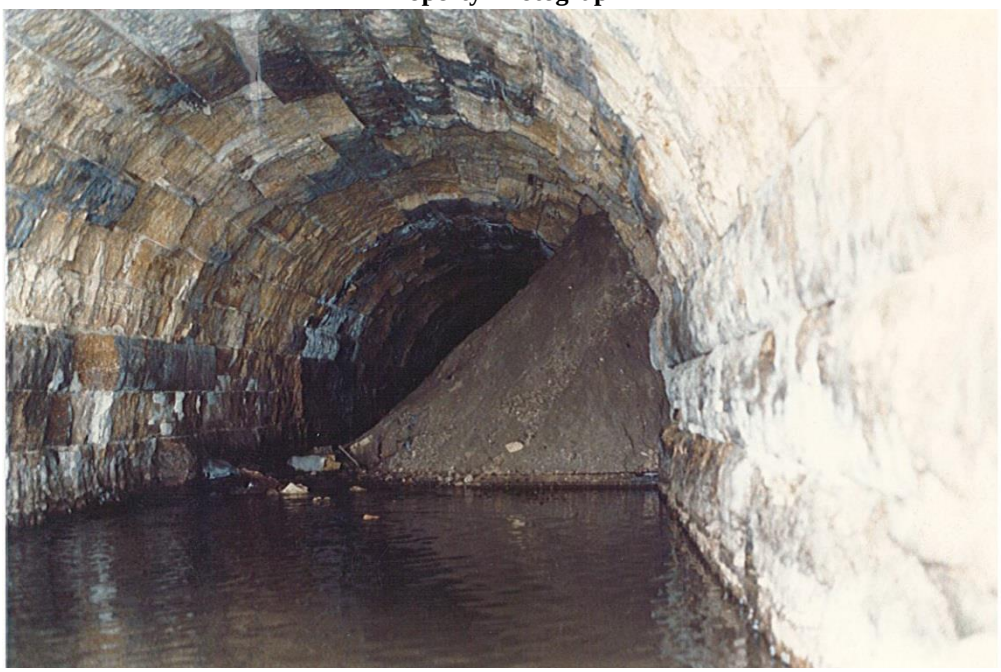
Property Photograph



View facing southwest; 1989 photograph showing stone masonry and partial washout

Property Photograph

View facing southwest; 2012 photograph after shotcrete application

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Property Photograph

View facing south-southwest, showing tunnel outlet and headwall

Property Photograph

View facing south-southwest, showing close-up of tunnel outlet and stone masonry arch

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Property Photograph

View facing southwest

MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Historic Bridge Study - Phase III

Minneapolis, Hennepin County, Minnesota

Property Photograph

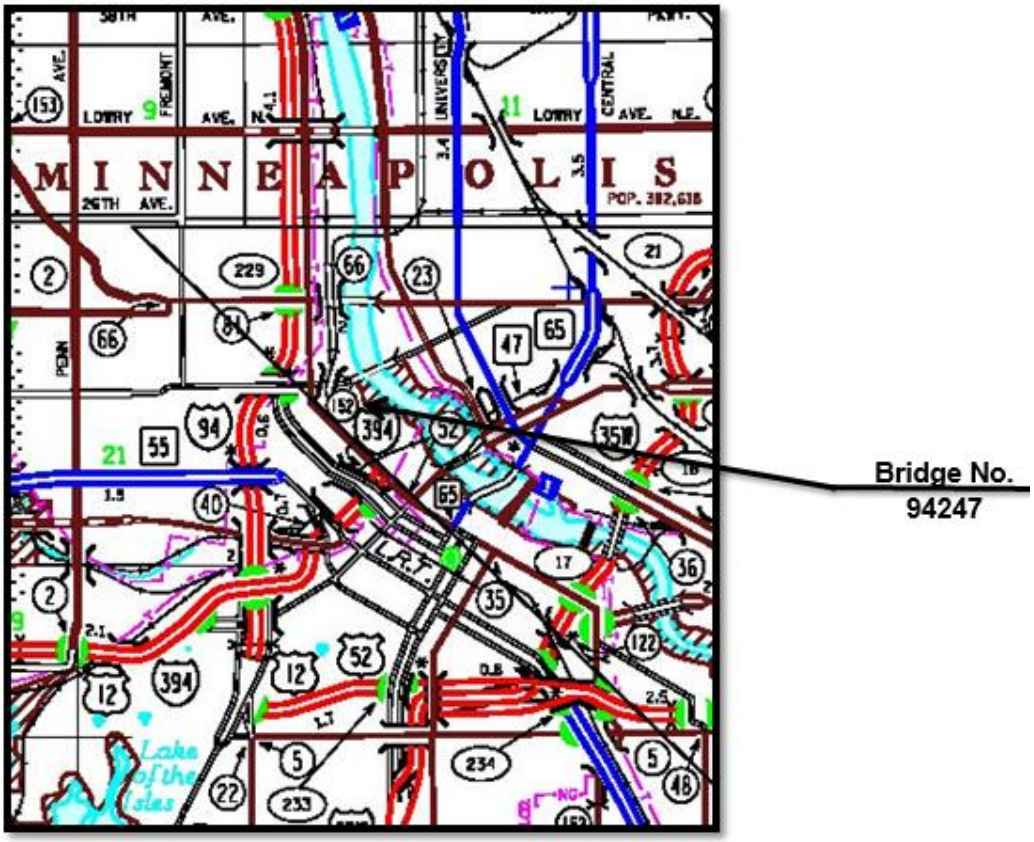
View facing north, showing West River Parkway at Bridge 94247 location

MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Historic Bridge Study - Phase III

Minneapolis, Hennepin County, Minnesota

Location Map



Bridge 94247 – WEST RIVER PARKWAY OVER BASSETT CREEK

PROJECT LOCATION
HENNEPIN COUNTY
SEC. 22 (NW 1/4 of NE 1/4), TO 029NN, R 24W
USGS QUAD NAME: MINNEAPOLIS SOUTH
UTM ZONE: 15 NAD: 83
EASTING: 478383 m (1569494 ft)
NORTHING: 4981900 m (16344785 ft)