Description

Bridge 62075 is a seven-span, reinforced-concrete, open-spandrel fixed arch and concrete girder pedestrian bridge located in the Highland Park neighborhood of St. Paul, Ramsey County, Minnesota. The bridge has a structure length of 244 feet, an overall width of 13 feet, and features a mix of Art Deco and Classical Revival detailing (MnDOT 2012a). Aligned on a north-south orientation, the bridge is within Highland Park and carries a pedestrian trail over Montreal Avenue (TH 51) to connect two sections of the park separated by the deep cut through which Montreal Avenue passes. Highland Park is a large, irregular shaped park consisting of four sections located around the intersection of Edgcumbe Road and Montreal Avenue. The park is roughly bounded by Snelling Avenue to the west; Ford Road/7th Street West to the south; Lexington Avenue to the east; and West Highland Parkway and Edgcumbe Road to the north. Walsh Park is also adjacent to northeast section of Highland Park. Within the park, Bridge 62075 carries a trail that leads to a modestly wooded area with deciduous trees, paved trails, a small playground, concrete picnic tables, and a covered picnic building at its south end. The area north of the bridge consists of a large playground, covered picnic area, trails, and deciduous trees. Four lanes of two-way traffic pass under the bridge along Montreal Avenue (MnDOT 2012a). Approximately four foot wide sidewalks line either side of the road. A concrete stairway is located on the north side of Montreal Avenue and leads up to the park slightly northeast of the bridge. The embankments under the approach spans are densely wooded with deciduous trees.

The substructure of Bridge 62075 consists of reinforced concrete abutments and wingswalls at either end of the bridge and six reinforced concrete open-rectangular piers with arched openings and horizontal struts. The superstructure of the bridge consists of seven total spans, one main span with three approach spans on either side. The main span is an open-spandrel, fixed rib-arch that is 86 feet in length, with six spandrel columns. The six approach spans are continuous-span, concrete deck girder spans. Each approach span has two concrete girders that are integral to the deck. Ornamental rounded floor beam ends are located at the piers and spandrel supports. The deck is cast-in-place concrete. The Art Deco style railings feature rectangular posts and steel railing panels. There are four types of railing posts. At the abutments there are simple, tall, battered square posts with light standards. Above the piers at the ends of the arch are tall, stepped posts with light standards. The intermediate posts on the approach spans are slightly shorter, with a stepped design. The intermediate posts on the main span are shorter, with a simple, square design. The open spandrel steel railing panels consist of a tubular top rail with C-channel intermediate and bottom rails and square balusters. The Classical Revival lights have fluted cast metal columns and spherical globes.

Integrity -

To meet the integrity requirements for Registration Requirement 5, a structure must retain considerable architectural integrity (Frame 1988a:F8). The “Reinforced-Concrete Highway Bridges in Minnesota, 1900-1945 MPDF” also states that original light standards have often been removed from bridges, which does not make a bridge ineligible, but does enhance a bridge's
Bridge 62075 remains in its original location and continues to span Montreal Avenue, connecting two portions of Highland Park. Additionally, the bridge remains situated in its original park setting within Highland Park. Therefore, the bridge retains integrity of location and setting. Few records are available to document any work done on this bridge over time. However, nothing in the appearance of the bridge suggests that the original design of the bridge has been altered. Furthermore, the bridge retains its ornamental detailing, including its rounded floor beam ends and original ornamental deck railing. Based on an analysis of photographs and the 2012 Minnesota Department of Transportation (MnDOT) inspection report, no light standards were located on the bridge in 2004 and 2005. The 2012 MnDOT inspection report indicates that new lighting fixtures were installed on the bridge and that the City was notified of broken lighting in 2010, which was repaired in 2011. The new light standards were most likely installed on the bridge circa 2010 (MnDOT 2012b). Additionally, according to the 2012 MnDOT inspection report, the bridge had several areas where the concrete was cracked, spalling, or leaching. Places of concrete disrepair include the underside of the deck, at a concrete pier, the concrete girders, and at the open-pier struts. Some, but not all of the areas of poor condition have been repaired. Areas that have been repaired have had cracks filled with white caulk. These repairs have a negligible effect on the integrity of design, material, or workmanship, as the repairs are a part of the overall maintenance of the bridge and do not change its design or feeling. As the bridge remains in its original use as a pedestrian bridge that provides a link to park trails on either side of Montreal Avenue and retains its integrity of location, setting, design, workmanship and materials, Bridge 62075 retains its integrity of feeling and association. Therefore, Bridge 62075 retains sufficient integrity to convey its historical significance.

**EVALUATION AND ANALYSIS**

**Historical Context**

Reinforced-Concrete Highway Bridges in MN, 1900-1945

**Historical Narrative**

Bridge 62075 is a pedestrian bridge that connects two sections of Highland Park. There are no known sources to indicate who designed or built the bridge. The land that now makes up Highland Park is located in what once was Reserve Township. After being officially opened to settlement in 1848, Reserve Township was primarily farmland until the late nineteenth century, when the land began to be subdivided into building lots. On February 8th, 1887, the township was annexed by the City of St. Paul (Empson 1973:14, 18). Residential development increased in the 1910s and 1920s, particularly north of Randolph Avenue; however, the area to the south remained largely rural through the mid-1920s. It was not until the post World War II boom of the 1940s and 1950s that the area was fully developed (Empson 1973:17-18).

Highland Park was a later addition to the St. Paul park system, as the first parks in St. Paul were public squares given to the City by St. Paul citizens in the late 1840s (Saint Paul City Planning 1976:7; Schmidt 2002:44). In 1872, Horace W. S. Cleveland, who was then planning the Minneapolis park system, addressed the St. Paul Chamber of Commerce. Cleveland urged them to acquire parkland, suggested potential locations for parks and other amenities, and recommended that the City set aside land for public parks (Schmidt 2002:44). The concept for the St. Paul park system was developed by Cleveland in a series of recommendations and plans created between 1872 and 1888 (Saint Paul City Planning 1976:7). After the creation of the Board of Park Commissioners in 1887, the park system received an increased level of improvements (Saint Paul City Planning 1976:7; Schmidt 2002:45). Como Park (1873) and Phalen Park (1895) were the first major recreational sites developed in St. Paul. Also, beginning in the 1880s, parks became more integrated into the design and planning of residential development (Zellie and Petterson 2001:8-9).

In the early twentieth century a greater emphasis began to be placed on the development of playgrounds and recreational activities. As a result, the Bureau of Parks (Board of Park Commissioners) became a part of the newly created Department of Parks, Playgrounds, and Public Buildings in the mid-1910s (Schmidt 2002:55). The acquisition of several large parks during this period made the development of playgrounds and recreational opportunities possible. Large parks acquired between 1900 and 1935 include Harriet Island, Battle Creek, Highland, Hidden Falls, and Shadow Falls Parks (Saint Paul City Planning 1976:7; Schmidt 2002:45). The concept for the St. Paul park system was developed by Cleveland in a series of recommendations and plans created between 1872 and 1888 (Saint Paul City Planning 1976:7). After the creation of the Board of Park Commissioners in 1887, the park system received an increased level of improvements (Saint Paul City Planning 1976:7; Schmidt 2002:45). Como Park (1873) and Phalen Park (1895) were the first major recreational sites developed in St. Paul. Also, beginning in the 1880s, parks became more integrated into the design and planning of residential development (Zellie and Petterson 2001:8-9).
The development of what became the Highland Park Neighborhood, in which Highland Park is located, largely corresponds with the construction of the Ford Assembly Plant, which was completed in 1925. The area that now comprises the Highland Park neighborhood remained largely agricultural until well into the 1900s. Overall planning of the area, including parks and street improvements, corresponded with the construction of the plant (Zellie and Peterson 2001:20).

In anticipation of the impending development of the area, the Department of Parks, Playgrounds, and Public Buildings announced its plans for Highland Park in 1924 (Zellie and Peterson 2001:20). Herman Wenzel, Commissioner of Parks, Playgrounds and Public Buildings for the City of St. Paul between 1922 and 1929, was instrumental in increasing St. Paul’s park system and in the development of Highland Park (May 1930:4). Wenzel worked and advocated for the Highland Park project at every stage of its development (Nason 1932:35). George Nason was also a key figure in the development of the park. Nason was appointed Superintendent of the Park Bureau in 1924 (Schmidt 2002:56). He also served as the City Landscape Architect who designed Highland Park (Nason 1932:35). As originally conceived, Highland Park was to contain over 200 acres of land; a golf course; athletic fields; pavilion; picnic grounds; and other amenities (Zellie and Peterson 2001:20; Nason 1932:35). Planning for the park was completed with cooperation with the Water Department, who owned 40 acres of the 160 acres that would be used as part of the Highland Park Golf Course (Herrold 1958:88-89).

The land for Highland Park was acquired by the St. Paul Department of Parks, Playgrounds and Public Buildings in 1925 and work on the park commenced shortly thereafter. At the time of initial construction, much of the park land was swampy and surrounding roads consisted of wagon trails (Nason 1932:35). In 1925, Montreal, Otto, and Hamline Avenues were graded and sewers were built, which caused a delay in park preparations. Additionally, a road was graded from Edgecumbe Road to Montreal Avenue through the park’s picnic area (May 1930:17). In 1927, a new bridge (Bridge 62075) was completed over the 40 foot cut created when Montreal Avenue was graded, to connect the two picnic areas located on either side of the cut (May 1930:17). The new bridge became a “landmark structure” for Highland Park (Frame 1988b). Construction on an outdoor stadium also commenced in 1927, and outdoor concerts began in 1929. The Highland Park Pavilion was built in 1929 at a cost of $54,000 (May 1930:17). At its completion in 1929, the park could boast a fine pavilion, golf course, a 7,000 seat stadium, tennis courts, football and baseball grounds, a picnic pavilion, pavement, a swimming hole, fly casting, archery, and “all the facilities of a modern public park” (Nason 1932: 35; May 1930:17).

Although the park was completed in 1929, the WPA undertook a number of improvement projects in the park during the 1930s (May 1930:17; Saint Paul City Planning 1976:10). These include a stone bathhouse at the swimming hole and the Highland Playground building, which was constructed of pink Mankato stone found at abandoned bridge piers in the Mississippi River (Anderson 1993:E60, F23). Today, park amenities include the Highland National 18 Hole Golf Course and Driving Range, a nine-hole golf course, the Highland Aquatic Center, a police station, a picnic pavilion, a Booya kitchen, Circus Juventas (a circus school for youth), a nine-hole disc golf course, playgrounds, restrooms, a picnic shelter, picnic areas, and trails (City of Saint Paul 2013a; City of Saint Paul 2013b).

Urban Park Bridges
Highland Park was one of the largest parks developed within the city of St. Paul. The rise of urban parks “coincided with urban expansion, the growth of city and state road systems, and the introduction of reinforced concrete” (Frame 1988a:E14). According to the ideas of Frederick Law Olmsted, urban parks were meant to be a refuge from the commercial and industrial centers and crowded neighborhoods (Frame 1988a:E14). Within this context, a bridge located in a park setting “was not meant to be merely an expected necessity,” but an opportunity for the park commission and landscape architect to “request a special bridge design, in harmony with the grand park scheme” (Frame 1988a:E14). Park bridges also provided “an ideal opportunity to explore the possibilities of the new concrete” (Frame 1988a:E15). Located within one of the largest parks in the City of St. Paul, Bridge 62075 is an example of an urban park bridge that embodies this ethos. Made of reinforced concrete and incorporating handsome Art Deco detailing, the bridge was used by park designers as an elegant way to seamlessly connect two sections of the park.
Bridge 62075 was previously determined individually eligible for listing in the National Register of Historic Places (NRHP) under Criterion C in 1988 by Robert M. Frame under the context “Minnesota Concrete Bridges, 1890-1945” as a landmark structure in the Highland Park area, as an elegantly designed rib-arch bridge, and as a relatively rare example of Art Deco design elements in a bridge (Frame 1988b). To be eligible under Criterion C, within the context, “Reinforced-Concrete Highway Bridges in Minnesota, 1900-1945” found within the “Reinforced-Concrete Highway Bridges in Minnesota, 1900-1945 Multiple Property Documentation Form (MPDF),” a bridge must move beyond typicality as an indicator of significance. The structure should possess additional important qualities, such as being the “sole surviving example, the oldest example, the longest span, the most intact example, the work of a major engineer, or contractor, or exhibiting notable engineering or architectural details” (Frame 1988a:F4). According to the historic context, “Reinforced-Concrete Highway Bridges in Minnesota, 1900-1945,” there are three eras in the development of the reinforced-concrete bridge “a) early experimental, non-standardized-design, 1890s-1911; b) early highway-commission, standardized design, 1912-1921; c) established highway department, trunk highway, and major urban bridge period, 1921-1945” (Frame 1988a:F-4-F-7). “The reinforced-concrete arch bridge, in one or another variation, is significant in each era” (Frame 1988a:F-5). The earliest reinforced-concrete bridges were almost always arch bridges. All reinforced-concrete span sub-types were in use by 1921. As time went on, other bridge sub-types such as, slab, T-beam, and girder bridges were used more and more. Accordingly, the arch bridge became less common in situations where economy was a factor, but continued to be used in locations where aesthetics and ornamentation were important, like parks (Frame 1988:F-5-F-6). In the later period, spanning the years 1921-1945, large reinforced-concrete arch bridges are the most significant (Frame 1988:F-5-F-6).

As an ornate reinforced-concrete arch bridge located in a large urban park, Bridge 62075 meets Registration Requirement 5, “Designed with outstanding architectural style or ornamentation.” Bridge 62075 represents an extraordinary aesthetic effort to enhance the crossing of Montreal Avenue between two sections of Highland Park. The bridge was, and continues to be a “landmark structure” within the park (Frame 1988b). The bridge is also significant for its style, as it was designed in the Art Deco style, which is a relatively rare style for reinforced-concrete bridges (Frame 1988a:F-8). Bridge 62075 has a period of significance of 1927, which corresponds to the year the bridge was built.

The entirety of Highland Park has not been previously surveyed or evaluated to determine its potential significance and eligibility for the NRHP. The Highland Park Outdoor Facility (RA-SPC-4676), located at 1335 Montreal Avenue West, and the Highland Park Pavilion (RA-SPC-4677) at 1403 Montreal Avenue West, have been previously surveyed, but no determination of eligibility was made. If in the future Highland Park is evaluated for listing in the NRHP, Bridge 62075 would appear to have significance as a contributing resource.

Recommendation

Bridge 62075 is a major, “landmark” structure within Highland Park and has been previously determined individually eligible for listing in the NRHP under Criterion C. The bridge exemplifies an urban park bridge with outstanding architectural style and ornamentation as identified by the “Reinforced-Concrete Highway Bridges in Minnesota, 1900-1945 MPDF.” Therefore, Bridge 62075 meets Registration Requirement 5, as it represents an extraordinary aesthetic effort to enhance the crossing of Montreal Avenue between two sections of Highland Park. The bridge provides an elegant walkway from two picnic grounds. The bridge is also significant for its styling, as it was designed in the Art Deco Style, which is rare style for reinforced-concrete bridges. Therefore, Bridge 62075 is recommended as individually eligible for the NRHP under Criterion C. The bridge has a period of significance of 1927, which corresponds to the year it was built.

Additionally, should Highland Park be evaluated to determine its eligibility for the NRHP, it is recommended that Bridge 62075 be evaluated to determine if it has significance as a contributing resource to a potential Highland Park Historic District.

Sources

Anderson, Rolf T.
St. Paul, Ramsey County, Minnesota

MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Local Historic Bridge Study - Phase II

City of Saint Paul


Empson, Donald

Frame, Robert


Hansell, Derek

Herrold, George H.

May, Clyde R.

Minnesota Department of Transportation [MnDOT]
2012a MnDOT Structure Inventory Report, Bridge ID:62075. Minnesota Department of Transportation, St. Paul, Minnesota.

2012b MnDOT Bridge Inspection Report Bridge 62075. Minnesota Department of Transportation, St. Paul, Minnesota.

Nason, George L.

Ramsey County Historical Society

Saint Paul City Planning

Schmidt, Andrew

Zellie, Carole and Garneth O. Peterson

RA-SPC-6507
MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Local Historic Bridge Study - Phase II
St. Paul, Ramsey County, Minnesota

National Register Status
Considered Eligible Finding

Consultant’s Recommendation of Eligibility
Eligible - Individual

Prepared By
Katie Ohland
The 106 Group Ltd.

Date Surveyed
7/15/2013
MINNESOTA ARCHITECTURE - HISTORY INVENTORY FORM

Project: Local Historic Bridge Study - Phase II
St. Paul, Ramsey County, Minnesota

Property Photograph

Facing S

Property Photograph

Facing N
St. Paul, Ramsey County, Minnesota

Project: Local Historic Bridge Study - Phase II
St. Paul, Ramsey County, Minnesota

Property Photograph

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Property Photograph

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Property Photograph

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