United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Long Meadow Bridge

other names/site number Bridge 3145

2. Location

street & number Old Cedar Avenue at Minnesota River (Long Meadow Lake) N/A not for publication

city or town Bloomington N/A vicinity

state Minnesota code MN county Hennepin code 053 zip code 55425

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this ___ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property ___ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national ___ statewide __local

Signature of certifying official/Title Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property ___ meets ___ does not meet the National Register criteria.

Signature of commenting official Date

Title State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

___ entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper Date of Action

Long Meadow Bridge
Name of Property

Hennepin, Minnesota
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

	private
x	public - Local
	public - State
	public - Federal

Category of Property
(Check only **one** box.)

	building(s)
	district
	site
x	structure
	object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
		buildings
		sites
1		structures
		objects
1	0	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

Iron and Steel Bridges in Minnesota, 1873-1945

Number of contributing resources previously listed in the National Register

N/A

6. Function or Use

Historic Functions
(Enter categories from instructions.)

TRANSPORTATION/road-related (vehicular)

Current Functions
(Enter categories from instructions.)

VACANT/NOT IN USE

7. Description

Architectural Classification
(Enter categories from instructions.)

OTHER: Camelback through truss

Materials
(Enter categories from instructions.)

foundation: CONCRETE
walls: N/A
roof: N/A
other: METAL: Steel

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

Long Meadow Bridge, identified as Minnesota State Bridge Number 3145,[1] consists of one contributing structure near the southern edge of Hennepin County. The bridge spans Long Meadow Lake, an overflow of the Minnesota River. The 1920 bridge is comprised of five Camelback through trusses with riveted connections and is constructed of steel. The six abutments and piers supporting the five spans are built of reinforced concrete.

Narrative Description

Long Meadow Bridge spans Long Meadow Lake, an overflow for the Minnesota River, on the alignment of Old Cedar Avenue in Bloomington. The Minnesota River channel is just south of the bridge. The style and character of the Long Meadow Bridge is shaped by the Minnesota River Valley's extensive flood plains and gently sloping banks, which requires the long span over the lake and wetlands. Although situated within a developed Twin Cities suburb, the immediate setting has a natural character due to the presence of the river and the surrounding Minnesota Valley National Wildlife Refuge. The replacement bridge, completed in 1980, carries Trunk Highway 77 across the river bottoms about 0.2 mile to the east.

Originally designed to carry motorized traffic, the Long Meadow Bridge is now closed to any use. The bridge consists of five Camelback through trusses, each measuring 170 feet in length for a total bridge length of 860 feet, including expansion bearings. The abutments and four piers are cast-in-place reinforced concrete on timber piles. The piers have hexagonal end posts. The original 20-foot wide deck was designed for a concrete surface, but is now laid with wood planks, sections of which have been removed at either end. The deck is supported by eight steel I-beam stringers, connected to the web of the steel floor beam girders.

Each of the steel trusses is identical, formed by eight panels with riveted connections, and mounted on bearings. Two inward facing channel sections joined by V-lacing form the lower chord, while the upper chord and inclined end posts are composed of back-to-back channel sections joined by a cover plate and lattice lacing. Primary vertical members are formed by pairs of slender channel sections with V-lacing riveted to the outer sides. Diagonal members are formed by four angle sections tied with flat lattice. Additional counter bracing on the inner panels consist of two angle sections fastened with flat lacing bars. Sway bracing forms an X with an added vertical member connecting the intersection to the lower horizontal member; all members are of angle sections secured by rivets and plates. Two crossing angles comprise both the top and lower lateral bracing. The bridge's portal bracing uses angle sections in alternating diagonals with the end members extending below the horizontal member to join the end posts.[2]

[1] The bridge's official designation according to Minnesota Department of Transportation records is "Bridge Number 3145." Its informal name is Long Meadow Bridge, named for the lake it crosses. Many historical and contemporary accounts refer to the property as the "Cedar Avenue Bridge," although this better describes the entire Cedar Avenue crossing of the Minnesota River that included the swing span bridge over the river channel, removed in 1980.
[2] This description is based on a site visit by the author on October 10, 2012.

Although there are no identified markers on the bridge itself, the plans refer to Hennepin County Bridge No. 55 and State Bridge No. 3145. The bridge was designed by deputy Hennepin County Surveyor E. J. Miller, and approved in June 1919 by Hennepin County Surveyor, E. E. Terrell.

Integrity

Few major alterations have been made to this property since its construction. Originally designed with a concrete deck, it was replaced by wood decking in 1962.[3] The reinforced concrete north abutment underwent major repairs in 1957. These minor changes do not significantly impair the historical integrity, and the bridge retains its integrity of location, design, setting and materials, key aspects related to its significance.

[3] "Cedar Bridge Being Repaired," *Dakota County Tribune*, February 15, 1962.

Long Meadow Bridge
Name of Property

Hennepin, Minnesota
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [ ] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

ENGINEERING

Period of Significance

1920

Significant Dates

1920

Significant Person
(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Engineer: Miller, E. J.

Builder: Illinois Steel Bridge Company

Builder: J.W. Hoy Company

Period of Significance (justification)

The period of significance is the bridge's date of construction, 1920. This reflects the period in which the engineers accomplished the crossing at Long Meadow Lake using the Camelback through truss system.

Criteria Considerations (explanation, if necessary)

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

The Long Meadow Bridge was constructed in 1920 using the Camelback through truss system, a variant of the Pratt truss system. It possesses significance under National Register of Historic Places Criterion C at the state level in the area of Engineering. Built to span the wide overflow of the Minnesota River, the Long Meadow Bridge required the placement of five through trusses to meet this engineering challenge. When constructed, it was the longest steel highway bridge with concrete flooring in the state; today it remains as the state's longest Pratt through truss bridge, and is one of only five bridges using a Camelback through truss system considered historic.[4] The Long Meadow Bridge meets the registration requirements of the Multiple Property Documentation Form for the statewide context of "Iron and Steel Bridges in Minnesota." Specifically, it is a bridge that exhibits exceptional engineering skill to meet unusual site conditions. The bridge's period of significance is 1920, the date it was completed.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

A River to Cross

The City of Bloomington is located on the southern edge of Hennepin County, and is separated from Dakota County to the southeast by the Minnesota River. The urban centers of Minneapolis and St. Paul lie approximately 10 miles to the north and northeast. Prior to Euro-American settlement, the Dakota tribe had long traversed the river bluffs between villages at Black Dog (now Burnsville) and Kaposia (now South St. Paul). The Township of Bloomington was settled by Euro-Americans in 1843, and formally organized in 1858. It was named "Bloomington" by settlers from Illinois, who arrived in 1852.[5] The eastern portion of the township was particularly suited to farming, where the glacial outwash plains offered flat lands with access to transportation along the riverways.[6]

The river presented both opportunity and obstacle to regional transportation. The principal means of transportation in the early years of Minnesota was by steamboat, which first traveled up the Mississippi River bringing supplies to Fort Snelling. The earliest steamboats on the Minnesota River ventured just a few short miles up from the Mississippi as early as 1825. After the 1851 Treaty of Traverse des Sioux opened extensive western lands in Minnesota, specially adapted steamboats carried settlers and their supplies up the precarious river, where they established new town sites. In 1865, river navigation improved after the legislature appropriated funds to clear river snags, making possible an average of 150 trips from St. Paul to Carver in eastern Carver County.[7] While the river offered a convenient route from St. Paul to the west, as

[4] "New Bridge to Mill City Open by Thanksgiving," *South Saint Paul Daily Reporter*, November 8, 1920; the determination of the longest Pratt through truss bridge is based on a review of the Minnesota Department of Transportation's bridge database on October 25, 2012. Other Minnesota Camelback bridges listed on or determined eligible for the National Register of Historic Places are Bridge 4667 in Redwood County, the Silverdale Bridge in Koochiching County (now in Washington County), the Dodd Ford Bridge in Blue Earth County, and the Waterford Bridge in Dakota County.
[5] Warren Upham, *Minnesota Place Names: A Geographical Encyclopedia* (1920; Minnesota Historical Society Press, Third Edition, 2001), http://mnplaces.mnhs.org/upham/index.cfm.
[6] Thomas J. Hanson, *Bloomington, Minnesota* (Minnesota: s.n., 1987).
[7] Nancy Goodman, "Minnesota River Steamboats: 1823-1910" supplement in *Paddlewheels on the Upper Mississippi*, (Stillwater, Minnesota: Washington County Historical Society, 2003).

agricultural lands began to be settled in Dakota County, the river was an obstacle for farmers heading to Minneapolis or St. Paul to buy supplies or bring crops to market.

Regular passage across the Minnesota River in Bloomington was made possible by a ferry established by government charter in 1851-52. This private ferry continued its operation for several decades, along with other ferries at Mendota, Savage and Lyndale Avenue. The Bloomington Ferry, originally owned by William Chambers and Joseph Dean, consisted of a flatboat long enough to accommodate a team of horses and wagon, and was pulled across the river by a hand winch. The ferryman lived on the north side of the river in a large house, which also served as a hotel. Passengers would call out from the road to signal their approach and the ferry master would prepare the rig. After passing through several other owners, John Cameron became the ferry operator in 1874.[8]

By the late 1880s, both locals and Twin Cities business interests sought a more permanent and reliable Minnesota River crossing by bridge. Three sites were generally considered to be most advantageous – Cedar Avenue on the east, a crossing aligned with Lyndale Avenue (near present day Interstate 35W), and the Bloomington Ferry crossing on the west.[9] Although Hennepin County would be the funder and builder of the bridge, an act of the Minnesota legislature was required to authorize the bonds. On April 24, 1889, the Minnesota legislature approved a bill authorizing the sale of $85,000 in bonds for not one, but two bridges across the Minnesota River. According to the law, one bridge would be built between Hennepin and Dakota counties. Although the precise location of the bridge would be determined by a majority of the joint county commissioners, the intention was to extend Cedar Avenue. A second bridge would be built between Hennepin and Scott counties, at either Bloomington Ferry, Lyndale Avenue, or anyplace between those sites as the Hennepin County commissioners saw fit. Each crossing would be a draw bridge and forever free of charge.[10]

In September 1889, the commissioners of Hennepin and Dakota counties held a joint session to decide on the location of the Cedar Avenue site. After several deadlocked ballots, the precise location was agreed upon, about three-quarters of a mile east of Cedar Avenue's then terminus. Although the construction of a bridge in this vicinity was ordained by the legislature, the action met with the objection of a number of Hennepin county businessmen who believed that the Cedar Avenue site would be more beneficial to St. Paul at the expense of Minneapolis, since good roads were already in place to St. Paul, but not to Minneapolis. The same group questioned why Hennepin County would fund a bridge that was more likely to funnel commerce to its rival, St. Paul in Ramsey County. [11]

The decision on the location of the second bridge was more contentious. The Bloomington Ferry owners filed an injunction against the county commissioners to restrain them from constructing a bridge near their site, charging it was in violation of their ferry charter. It was rumored, however, that the forces behind the injunction were business interests in support of the Lyndale Avenue site.[12] The Minneapolis Board of Trade issued a report in favor of the Lyndale Avenue location in November. Citing "undue influence from certain of [the 1889] legislature" favoring bridges at Cedar Avenue and Bloomington Ferry, the Board argued that the Lyndale Avenue site was of greater benefit to Minneapolis businesses

[8] Minnie Ellingson Tapping, *Eighty Years at the Gopher Hole* (New York: Exposition Press, 1958); Judith A. Hendricks, ed., *Bloomington on the Minnesota: A Project of the Bloomington Bicentennial Committee.* (Bloomington, Minnesota: T.S. Denison & Company, Inc., 1976) 36.
[9] "The Minnesota Bridges," *Minneapolis Tribune,* March 22, 1889.
[10] Minnesota Special Laws ch. 197 (1889).
[11] "The County Board," *Minneapolis Tribune,* September 3, 1889.
[12] "The Building of the Bloomington Ferry Bridge Delayed," *Minneapolis Tribune,* July 26, 1889.

and cut nine miles off the trip via Bloomington Ferry.[13] After the county commissioners selected the Bloomington Ferry site, former Attorney General George P. Wilson rendered a legal opinion to the Board of Trade on the dispute. He found that "although their constituents may be unanimously of the opinion that [the Hennepin County commissioners] acted unwisely" the commissioners' choice of the Bloomington Ferry site was never-the-less legally viable. Wilson added "that the Cedar Avenue bridge, if constructed, would be of doubtful utility to the city, but would rather tend to help a rival city." [14]

Despite acrimony of the various Hennepin County factions, a stone and iron swing bridge across the Minnesota River channel and a wood trestle across the Long Meadow Lake overflow along the Cedar Avenue alignment were constructed in 1891.[15] A crossing at Bloomington Ferry was completed the same year. As compensation for the loss of his ferry business, John Cameron was given the position of watchman on the new bridge's swing span.[16]

Changing agricultural patterns and the introduction of trucks and automobiles just a few decades later assured a relatively short life span for the Long Meadow Bridge. In 1912, the Committee on Highways of the Minneapolis Civic and Commerce Association released a report on the impacts of poor road conditions on commerce of the seven county Twin Cities metropolitan area. Farming practices in the region were shifting to a greater emphasis on milk, fruits and vegetables transported by truck, and required year-round, daily transit to the market. The fragmented system of road ownership and maintenance among the counties, cities, townships, villages, and wards contributed to uncertain and widely varying conditions for getting farmers to market. As an illustration, the study reported that a Maple Grove farmer travelling 13 miles to the Minneapolis market used a succession of roads controlled by the township of Maple Grove, the village of Osseo, the township of Brooklyn, the township of Crystal Lake, the village of Robbinsdale, and the Tenth, Third, and Fourth wards of Minneapolis, "and he can tell by the bumping of the wagon where each jurisdiction ends and the next begins."[17] In effect, the Minneapolis trade territory was restricted due to bad roads. Among its recommendations, the Committee proposed the formation of a broad highway district over the many governmental units charged with the administration of all roadways.[18]

These recommendations coincided with a new state highway commission, passed into law in 1911, as part of the broader good roads movement. The new Minnesota Highway Commission (MHC) expanded on the authority of the first commission, established just six years earlier. Among other things, the new law required the state engineer's department to make original surveys, plans and specifications for all work done on state roads and bridges on which state aid was allowed. On those roads and bridges not receiving state aid, town and county road authorities were required to seek the advice of, and to consult with the state engineer on all road and bridge work. Forty assistant engineers were hired by the state to implement the new program. As part of their mission to improve and professionalize the Minnesota road network, the MHC advocated for specific bridge types by creating standard plans, which were made available to the counties. The

[13] "The City," *Minneapolis Tribune*, November 5, 1889.
[14] "No Remedy," *Minneapolis Tribune*, November 19, 1889.
[15] "County Commissioners Meet," *Minneapolis Tribune*, June 3, 1890.
[16] Hendricks, *Bloomington on the Minnesota*, 41.
[17] "Complete Report of the Committee on Highways," *Minneapolis Tribune*, April 4, 1912.
[18] *Ibid.*

MHC worked toward replacing antiquated wooden bridges with "lasting structures of steel and concrete."[19] By 1916, the MHC had provided plans for 1,878 bridges, over 75 percent of which were constructed under state supervision.[20]

By the mid-1910s, increased expectations for improved roadways stemming from the good roads movement led to the replacement of the 1891 wood trestle section of the Cedar Avenue Bridge, as well as the construction of a bridge at Lyndale Avenue. The improved Cedar Avenue crossing would draw farmers from Rosemount and Farmington and offer better access during periods of high water. The Lyndale Bridge would offer a direct route to Minneapolis from Northfield, Faribault, Owatonna and other southern Minnesota cities.[21] Increased prices for steel and labor, and the U.S. entry into World War I in 1917 delayed construction of both bridges. While construction could not get underway, supporters of the Lyndale Avenue connection were undeterred, and continued to advocate through the newly organized Lyndale Avenue Bridge Association. Thousands of motorists, the association argued, would come from southern Minnesota to Minneapolis, rather than St. Paul, if the bridge and road were built.[22] In a demonstration that the Hennepin County board was "not paralyzed by the war," nor by high prices, they voted in May of 1917 to erect a new bridge over the Minnesota River at Lyndale Avenue, and to spend up to $40,000 for "repairs" to the Cedar Avenue bridge. Work would begin as soon as the funds were available.[23] The repairs intended for the Cedar Avenue bridge were not specified in newspaper accounts, and it is not clear whether they were intended for the Long Meadow trestle, the main channel swing span, or both.

Just weeks after peace was declared in November 1918, the Civic and Commercial Association and their commercial clubs were eager to get back to their pre-war improvement projects. The Lyndale Avenue and Cedar Avenue bridges and roads rose to the top of their lists for funding from the legislature.[24] Pairing the bridges in the funding request to the legislature appeared to be a winning strategy, satisfying both St. Paul and Minneapolis politicians. In April 1919, the Minnesota Senate and House of Representatives agreed to a levy of three-tenths mill to construct both the Lyndale Avenue and Cedar Avenue bridges.[25] To sweeten the deal, a $300,000 paving project of Cedar Avenue from the Minnesota River to the Minneapolis city limits was added.[26] The five-span bridge over Long Meadow Lake was completed in late 1920; the 1891 swing span across the Minnesota River stayed in place.

The new Long Meadow Bridge replaced the timber trestle erected in 1891. Designed by Deputy Hennepin County Surveyor E. J. Miller, the new bridge was identified as county bridge number 55. The additional assignment of a state bridge number (3145), and plan notations requiring materials and workmanship to meet state standards and specifications, suggest the influence of the newly formed MHC on the bridge's design.

Construction of the substructure began in 1919 and was executed by the J. W. Hoy Company of St. Paul and took a full year to complete. Building the foundations was particularly challenging due to the swampy nature of Long Meadow Lake. Some 6,000 lineal feet of timber were used to pound pilings 40 feet below the surface. Another 20 feet of concrete piers were built atop the pilings. Six-hundred-thirty tons of structural steel were needed to assemble the Camelback through

[19] Minnesota State Engineer, as quoted in Jeffrey Hess, "Final Report of the Historic Bridge Survey," 1988, 26.
[20] Hess, "Final Report of the Historic Bridge Survey," 24-27.
[21] "Bond Issue Urged for Bridge across the Minnesota River," *Minneapolis Tribune*, December 13, 1916.
[22] "Lyndale Bridge Advocates Think Project Assured," *Minneapolis Tribune*, May 6, 1917.
[23] "County Board Votes to Construct Bridge at Lyndale Avenue," *Minneapolis Tribune*, May 8, 1917.
[24] "Civic Association and Commercial Clubs Go Back to Pre-War Work," *Minneapolis Tribune*, November 24, 1918.
[25] "Minnesota Legislature," *Minneapolis Tribune*, April 22, 1919.
[26] "Completion This Year of Hennepin's $1,400,000 Program Will Give County One of Finest Systems of Improved Roads in the United States," *Minneapolis Tribune*, May 8, 1921.

truss superstructure, which was erected by the Illinois Steel Bridge Company in just two months.[27] The new crossing was completed by Thanksgiving Day, 1920 for a cost of $114,940, and was the longest of its kind in the state. The continuous concrete deck significantly reduced the vibrations experienced on the old trestle span.[28]

The Camelback Through Truss

The Camelback through truss is a variant of the Pratt through truss design. Truss bridges are composed of a framework of horizontal, vertical, and diagonal members working variously in tension or compression assembled to carry the weight of a roadway. The *through truss* encompasses the entire roadway, with structural members below, overhead, and on the sides. A *pony truss* eliminates the overhead structural members, while the *deck truss* places all of the supporting members below the deck.[29] The Pratt truss system was patented in 1844 by Boston architect Caleb Pratt and his son Thomas Pratt, an engineer. The system appears from the side as a rectangular frame with inclined end posts, and vertical and diagonal members linking the top and bottom chords. The vertical members act in compression, while the diagonal members work in tension. Bracing overhead and below ties the parallel trusses together. Early Pratt trusses were constructed of wrought iron, with pin connections. By the 1890s steel replaced wrought iron as the dominant material, and pinned connections gave way to rigid, riveted connections by the early 1900s. The Camelback is a polygonal variant of the Pratt truss that is composed of exactly five slopes on the top chord, giving the appearance of a low arch. Camelbacks were often used for spans between 100 and 300 feet in length.[30]

Because through truss bridges in particular are not easily widened, they are often replaced as demands for larger roadways are necessitated. The Long Meadow Bridge is one the few remaining Camelback bridges in the state, and one of only five to be considered historic.[31] Although not the oldest, it is the longest of the five, and perhaps the longest Camelback or Pratt through truss bridge ever constructed in the state.

An Enduring Span

The construction of the new Long Meadow and Lyndale Avenue bridges came at a time when the state was developing a systematic, statewide system of highways under the leadership of Charles M. Babcock, the state's first Commissioner of Highways. In what became known as the "Babcock Plan," the Commissioner proposed a system of interconnecting "trunk" highways constructed throughout Minnesota with all-weather, well-engineered roadways. The highways would be supported by the state and funded by an automobile license fee. To enact such a plan required an amendment to the state constitution. On November 2, 1920, the amendment passed by the largest vote and by the largest majority an amendment had ever garnered. Implementing legislation passed the following year under the "Public Highways Act of Minnesota," creating the Minnesota Highway Department. The act established the system of trunk highways, state-aid roads, county

[27] Although the shop drawings name the Minneapolis Steel and Machinery Company, contemporary newspaper accounts report the Illinois Steel Bridge Company as the fabricator of the metal trusses. Illinois Steel had a branch office in St. Paul at the time.
[28] "New Bridge to Mill City Open by Thanksgiving," *South Saint Paul Daily Reporter*, November 8, 1920.
[29] Denis Gardner, "Waterford Bridge," March 2010, National Register of Historic Places Nomination, available at Minnesota State Historic Preservation Office, Minnesota Historical Society, St. Paul, 8:6.
[30] Denis Gardner, *Wood, Concrete, Stone, and Steel: Minnesota's Historic Bridges* (Minneapolis: University of Minnesota Press, 2008) 52-53, 61.
[31] Gardner, "Waterford Bridge," 8:9; other Minnesota Camelback bridges listed on or determined eligible for the National Register of Historic Places are Bridge 4667 in Redwood County, the Silverdale Bridge in Koochiching County (now in Washington County), the Dodd Ford Bridge in Blue Earth County, and the Waterford Bridge in Dakota County.

roads, and township roads, with total state authority over the trunk highways and regulatory power over the state-aid system. Furthermore, it made the state eligible for federal funds through the Federal Road Act of 1916.[32]

In the buildup to the new state highway system, Babcock recommended that Lyndale Avenue be selected as the principal state route leading from Minneapolis to points south in September of 1919. Despite arguments that Cedar Avenue was three miles shorter and less hilly than the Lyndale approach, the Hennepin and Dakota county commissioners agreed that Lyndale Avenue should become the state highway.[33] Despite active lobbying and rallies organized by Cedar Avenue business advocates, Lyndale Avenue would be designated as State Highway No. 50 in 1921 under the new state law, giving preference to that roadway for future expansion and investment. With the influx of federal funding, the $1,000,000 "Lyndale Avenue Project" extended and paved that street from Lakeville to St. Cloud, reported to be the longest stretch of paved roadway in the United States.[34]

The loss of the Highway 50 designation battle perhaps accounts for the longevity of the Long Meadow Bridge. The Lyndale Avenue bridge was demolished in 1957 as the new Interstate 35W highway was built alongside it. Meanwhile, Cedar Avenue continued to operate as a secondary gateway to the Twin Cities for six decades. Pleas for its replacement were heard as early as 1956. Citing seasonal impassibility during flooding, poor road alignment, a narrow roadway, manual operations of the swing span, and an eight-ton weight limit, Dakota County commissioners asked the state to make needed surveys for a new bridge.[35] Apparently rebuffed, the county would have to be temporarily satisfied with replacement of the concrete deck with timber decking in 1962.[36]

During the 1950s and 1960s, northwestern Dakota County experienced tremendous population growth, and the nearby municipalities of Apple Valley, Burnsville, Eagan, Lakeville, Rosemount and Inver Grove Heights accounted from some 45 percent of the county's population. No longer a rural outpost, the region was becoming the home to commuters into Minneapolis and St. Paul, placing additional strains on the old bridge's capacity. By 1971, 11,700 vehicles made the Cedar Avenue crossing daily. Additional developments, such as the proposed Minnesota Zoo in Apple Valley and the Metropolitan Stadium in Bloomington, placed additional pressures on the bridge, and piqued drivers. In 1971, the Village of Apple Valley, the Eagan Township Board, the Burnsville Village Council, the Bloomington Jaycees, and the Dakota County Development Association passed resolutions notifying the Minnesota legislature and governor of the need for a new bridge.[37] The concern for the bridge's viability was underscored when a report issued by the Federal Highway Administration named it one of the nation's 50 most hazardous bridges in the nation, and approved its replacement with significant federal funding as authorized in the bridge replacement section of the Federal Highway Act of 1969.[38]

The Minnesota Department of Transportation got underway with the project, which required an extensive environmental impact study as a result of the sensitive river crossing, and the major re-routing and highway construction. Formal

[32] Hess, "Final Report of the Historic Bridge Survey," 30-31.
[33] "Lyndale Called Best Route for Extension," *Minneapolis Tribune*, September 23, 1919.
[34] "Completion This Year of Hennepin's $1,400,000 Program Will Give County One of Finest Systems of Improved Roads in the United States," *Minneapolis Tribune*, May 8, 1921.
[35] "Need for New Cedar Avenue Bridge Told," *Dakota County Tribune*, March 30, 1956.
[36] "Cedar Bridge Being Repaired," *Dakota County Tribune*, February 15, 1962.
[37] "Apple Valley Pleads for New Cedar Bridge," *Dakota County Tribune*, February 4, 1962; "Eagan Cites Need for New Cedar Avenue Bridge," *Dakota County Tribune*, March 25, 1971; "Bloomington Jaycees Ask New Bridge," *Dakota County Tribune*, March 25, 1971; "Development Assn. Asks New Bridge," *Dakota County Tribune*, April 29, 1971; "Resolution Urges Speedup of Cedar Ave. Bridge Plans," *Dakota County Tribune*, October 21, 1971.
[38] "Cedar Bridge Is One of Nation's Worst," *Dakota County Tribune*, January 13, 1972.

groundbreaking ceremonies were held in December 1976, and the new six-lane Cedar Avenue Bridge was opened in October 1980.[39]

After the new bridge's completion, the 1891 swing span crossing the river channel was removed. The Minnesota Department of Transportation transferred ownership of the Long Meadow Bridge to the City of Bloomington in 1981. The city continued to operate the bridge for local traffic until 1993, when it was limited to pedestrians and bicycles only. The following year, the bridge was determined eligible for listing in the National Register by the Minnesota State Historic Preservation Office. In 2002, the city commissioned an engineering inspection report on the bridge's condition. The study concluded that the steel members, especially stringer beams and joists, had extreme rust and were considered critical. The study recommended that the bridge should be closed to all traffic, including pedestrian and bicycles. The city followed the recommendation and barricaded the bridge, closing it entirely.[40]

As a result of the closing, frequent users, such as cyclists and bird-watchers, promptly became advocates for the rehabilitation or replacement of the crossing. The loss of bridge access frustrated both recreational and commuter bicycle users, as alternative routes to other river crossings added 15 miles to a trip. Birders who used the bridge to view the fauna in the Minnesota Valley National Wildlife Refuge sought to restore their access. Advocacy groups such as the Bicycle Alliance of Minnesota, the Minnesota Mountain Bikers organization, the Friends of the Minnesota Valley, and the Audubon Society of Minnesota became vocal supporters for creating a crossing at Long Meadow Lake. Led by the Bloomington Historical Society, historical advocates directed the conversation toward bridge restoration, instead of replacement. Other supporters have included the Joseph R. Brown Minnesota River Center of Henderson, Minnesota, the Pond Dakota Heritage Society of Bloomington, the Preservation Alliance of Minnesota and an informal citizen's advocacy group comprised of long-time Bloomington residents. To generate support for the bridge's restoration, these groups organized "Rally for the Bridge" events in 2007 and 2012, both of which attracted attendance by the sitting governor.[41]

Because federal involvement is necessary for improvements to the river crossing, any work to the historic bridge must comply with national preservation laws. These laws require full consideration of rehabilitation instead of replacement, and the avoidance of an impact to the structure if it is prudent and feasible to do so. The City of Bloomington supports a pedestrian connection along the Old Cedar Avenue alignment, but seeks a transfer of ownership to avoid continued maintenance costs. Conversations are underway to identify sufficient funding to renovate Bridge 3145 for bicycle and pedestrian use and to identify a new owner.[42] New life as a recreational river crossing would help assure the preservation of the state's longest through-truss bridge.

[39] "Groundbreaking Is Held for Cedar Avenue Bridge," *Dakota County Tribune*, December 16, 1976; "Opening of Cedar Ave. Bridge Hailed by Local, State Officials," *Dakota County Tribune*, November 4, 1980.
[40] Olds, Ronald W., "Special Inspection Report, Bridge No. 3145, Old Cedar Avenue over Long Meadow Lake," December 5, 2002, available at the City of Bloomington.
[41] Mary Jane Smetanka, "Should Cedar Bridge Be Replaced or Renovated?" *Star Tribune*, July 13, 2008, sec. B; Larry Granger, Bloomington Historical Society, letter to author, November 2012.
[42] Old Cedar Bridge and the Minnesota River Valley State Trail: Frequently Asked Questions, City of Bloomington, accessed on November 13, 2012. http://www.ci.bloomington.mn.us/cityhall/dept/pubworks/engineer/streets/curr_proj/ocbc/ocbc.htm.

9. Major Bibliographical References

Bibliography (Cite the books, articles, and other sources used in preparing this form.)

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Smetanka, Mary Jane. "Should Cedar Bridge Be Replaced or Renovated?" *Star Tribune,* July 13, 2008, sec. B.

South Saint Paul Daily Reporter. Various Dates.

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The 106 Group. "Determination of Eligibility for Bridge Number 3145, Long Meadow Bridge, Bloomington, Hennepin County." Report available at the Minnesota State Historic Preservation Office, Minnesota Historical Society, St. Paul. 1994.

Long Meadow Bridge — Hennepin, Minnesota
Name of Property — County and State

Upham, Warren. *Minnesota Place Names: A Geographical Encyclopedia.* 1920. Minnesota Historical Society Press, Third Edition, 2001. http://mnplaces.mnhs.org/upham/index.cfm.

Previous documentation on file (NPS):

___ preliminary determination of individual listing (36 CFR 67 has been requested)
___ previously listed in the National Register
___ previously determined eligible by the National Register
___ designated a National Historic Landmark
___ recorded by Historic American Buildings Survey #_____
___ recorded by Historic American Engineering Record # _____
___ recorded by Historic American Landscape Survey # _____

Primary location of additional data:

x State Historic Preservation Office
___ Other State agency
___ Federal agency
___ Local government
___ University
___ Other
Name of repository: _____

Historic Resources Survey Number (if assigned): HE-BLC-064

10. Geographical Data

Acreage of Property 0.5
(Do not include previously listed resource acreage.)

UTM References
(Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing		Zone	Easting	Northing
1	15	480880	4964107	3			
2				4			

Verbal Boundary Description (Describe the boundaries of the property.)

The nominated property consists of a rectangle measuring 865 feet long (northwest-southeast) and 23 feet wide (southwest-northeast), encompassing the outside edges of the concrete abutments and wing walls.

Boundary Justification (Explain why the boundaries were selected.)

The boundary encompasses the bridge's superstructure and substructure.

Long Meadow Bridge — Hennepin, Minnesota
Name of Property — County and State

11. Form Prepared By

name/title William E. Stark

organization Stark Preservation Planning LLC date January 9, 2013

street & number 2840 43rd Avenue South telephone 651-353-2628

city or town Minneapolis state MN zip code 55406

e-mail will@starkpreservation.com

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property: Long Meadow Bridge

City or Vicinity: Bloomington

County: Hennepin **State:** Minnesota

Photographer: William E. Stark

Date Photographed: October 10, 2012

Description of Photograph(s) and number:

Photo 1 of 5
MN_Hennepin County_Long Meadow Bridge_0001
Long Meadow Bridge, looking northeast

Photo 2 of 5
MN_Hennepin County_Long Meadow Bridge_0002
Long Meadow Bridge, looking west

Long Meadow Bridge
Name of Property

Hennepin, Minnesota
County and State

Photo 3 of 5
MN_Hennepin County_Long Meadow Bridge_0003
Long Meadow Bridge, deck and truss, looking northwest

Photo 4 of 5
MN_Hennepin County_Long Meadow Bridge_0004
Long Meadow Bridge, west portal, looking southeast

Photo 5 of 5
MN_Hennepin County_Long Meadow Bridge_0005
Long Meadow Bridge, stringers, looking southeast

Property Owner:

(Complete this item at the request of the SHPO or FPO.)

name City of Bloomington

street & number 1800 West Old Shakopee Road telephone 952-563-8700

city or town Bloomington state MN zip code 55431-3027

United States Department of the Interior
National Park Service

National Register of Historic Places Continuation Sheet

Long Meadow Bridge
Name of Property Hennepin, Minnesota
County and State Iron and Steel Bridges in Minnesota
Name of multiple listing (if applicable)

Additional Documentation Page 1

Figure 1. Long Meadow Bridge. USGS 7.5 Minute Series Topographic Map, St. Paul SW, Minnesota Quadrangle. 1967 (1993).

Figure 2. Long Meadow Bridge, aerial view, 1968. The swing span bridge across the river channel can be seen in the far distance. Source: Minnesota Department of Transportation.

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Long Meadow Bridge
Name of Property
Hennepin, Minnesota
County and State
Iron and Steel Bridges in Minnesota
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Additional Documentation Page 3

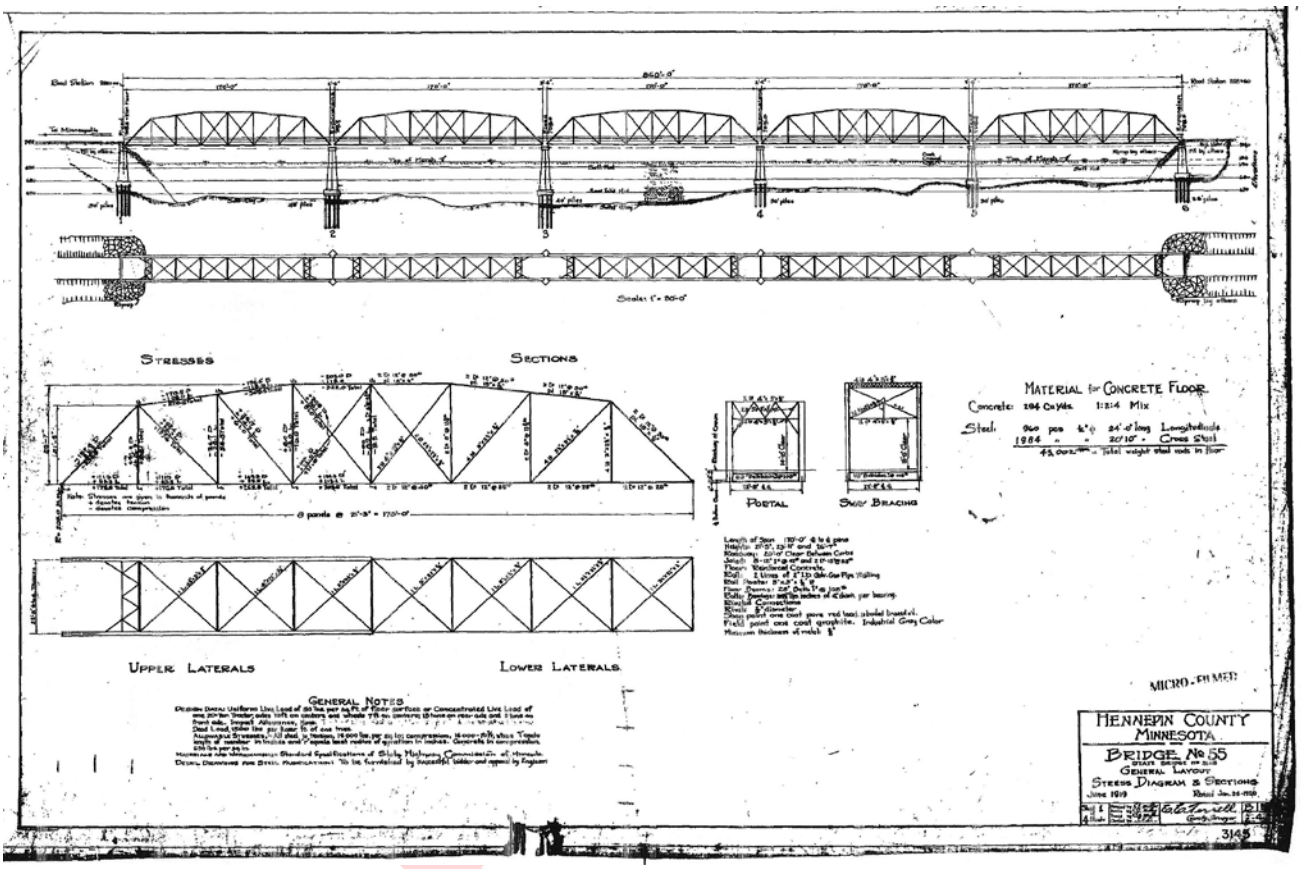

Figure 3. Long Meadow Bridge, General Layout View. 1919 Plan Set. Source: Minnesota Department of Transportation.

Figure 4. 1891 Swing-span Bridge over Minnesota River channel, circa 1980. Source: Dakota County Historical Society.

Figure 5. Long Meadow Bridge view, c. 1980. The swing span bridge across the river channel can be seen in the foreground, and Bridge 3145 is in the far distance.