
INTENSIVE ARCHITECTURAL SURVEY OF IOWA PRIMARY AND SECONDARY ROAD BRIDGES BUILT BETWEEN 1942 AND 1970

STATEWIDE

PROJECT NHSN-000S(136)--2R-00

SHPO Review and Compliance Number: 20040300030
Report Number LBG-3031G-1

Prepared for:



IOWA DEPARTMENT OF TRANSPORTATION
800 Lincoln Way
Ames, Iowa 50010

Prepared by:



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July 2011

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July 2011

ABSTRACT

The Louis Berger Group, Inc. (LBG) has completed an intensive architectural resource survey of primary and secondary road bridges in the state of Iowa. Survey was performed in February 2008 and March 2009. These surveys were conducted on behalf of the Iowa Department of Transportation as part of Project NHSN-000S(136)--2R-00.

The project, which began in November 2002, involved four different tasks: 1) prepare an electronic database that integrates data from several different sources; 2) update the Multiple Property Documentation Form (MPD), *The Evolution of Iowa's Highway Bridges 1868 – 1945*, to evaluate NRHP eligibility of bridges constructed between 1942 and 1970; 3) survey and evaluate potentially eligible bridges identified in the updated MPD; and 4) document historic bridges built before 1942. The purpose of the current study is to complete Task 3, the final task for the project. The MPD completed in Task 2 provides a basis for the current Phase II evaluation of all bridges built between 1942 and 1970 and includes a statement on historic context, a discussion of property types, a statement of significance, and a set of registration requirements for each property type.

LBG initially identified 133 bridges for Phase II NRHP evaluation with respect to the MPD registration requirements. Nineteen bridges were eliminated from further consideration due to inaccurate bridge typing and alterations. An additional 6 bridges were eliminated as they were exempted by the Advisory Council on Historic Preservation (ACHP) through the Section 106 Exemption Regarding Effects to the Interstate Highway System. The remaining 108 bridges were evaluated with respect to the registration requirements outlined in the MPD. LBG identified 25 bridges that met the registration requirements for the MPD and thus are eligible for inclusion in the NRHP.

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I. INTRODUCTION

This report presents the results of an intensive architectural resource survey conducted by The Louis Berger Group, Inc. (LBG), for primary and secondary road bridges in the state of Iowa on behalf of the Iowa Department of Transportation (IaDOT) as part of NHSN-000S(136)--2R-00. Federal legislation mandating the identification, evaluation, and treatment of cultural resources impacted by publicly financed or licensed undertakings includes Section 106 of the National Historic Preservation Act of 1966, as amended; Section 110 (b)(4) of the National Environmental Policy Act of 1969, as amended; the Advisory Council on Historic Preservation's procedures for the Protection of Historic Properties (36CFR800); and Section 4(f) of the Department of Transportation Act of 1966, as amended.

In November 2002, the IaDOT contracted The Louis Berger Group, Inc. to update its existing historic bridge survey, which was completed in 1993 and covered all primary and secondary road bridges constructed prior to 1942. The objective of the project was to update the IaDOT's historic bridge inventory to include bridges constructed in Iowa between 1942 and 1970 inclusive, and to make both original and updated survey data available in a form that can be readily integrated into the IaDOT's and county engineers' existing electronic databases. The project involved four different tasks: 1) prepare an electronic database that integrates data from several different sources; 2) update the Multiple Property Documentation Form (MPD), *The Evolution of Iowa's Highway Bridges 1868 – 1945*, to evaluate NRHP eligibility of bridges constructed between 1942 and 1970; 3) survey and evaluate potentially eligible bridges identified in the updated MPD; and 4) document historic bridges built before 1942.

In June 2003, LBG completed Tasks 1 and 4. LBG provided IaDOT with an updated version of the Environmental Service's database that contained several new data fields to record, and, as time passes, update, the status of each primary and secondary road bridge with respect to survey and NRHP evaluation. All of the historic bridges in the state were located and photographed for Task 4. In February 2004, LBG completed Task 2: the MPD, *Highway Bridges in Iowa: 1942-1970*. The document was presented to members of the IaDOT's Historic Bridge Committee for review and was ultimately approved by the Iowa State Historic Preservation Office in July 2004.

The purpose of the current study is to complete Task 3, the final task for the project. The MPD completed in Task 2 provides a basis for the current Phase II evaluation of all bridges built between 1942 and 1970 and includes a statement on historic context, a discussion of property types, a statement of significance, and a set of registration requirements for each property type.

II. METHODOLOGY

A. BRIDGE SELECTION METHODOLOGY

For the first phase of the bridge project, LBG completed a Multiple Property Documentation Form (MPD) entitled, *Highway Bridges in Iowa: 1942-1970* in February 2004. The registration requirements in the MPD were used to identify bridges that were potentially eligible for listing in the NRHP. Using the contexts and property type discussions from the MPD as a filter, LBG reviewed IaDOT databases and other information to compile a list of those primary and secondary bridges built between 1942 and 1970 that warranted intensive survey to determine NRHP eligibility. LBG initially identified 133 bridges as potentially eligible according to the MPD registration requirements using the following bridge selection methodology (Figure 1). No bridges were identified as potentially eligible under Criterion B.

1. *Criterion A*

County transportation maps from 1940 and 1974 for all 99 Iowa counties were examined for changes in Iowa's transportation network of primary, secondary, and rural roads. In general, additions to the transportation network included bypasses around towns; relocation of highways to straighten curves and jogs in the road; and construction of the Interstate system. No changes, other than improvement of existing roads, were found in fourteen Iowa counties. Bridges built on existing roads within the study period were not considered for further study as they are most certainly replacement bridges, which though integral to the modernization of the county's transportation system are not likely to have contributed significantly to the development of the local area or county.

The remaining county maps were examined to locate bridges that were associated with bypasses and relocated roads that may be the direct cause of important change and development in the area, and thus potentially significant under Criterion A. The IaDOT 1999 *Iowa Primary Road Sufficiency Log* was used to identify bridges along these new transportation routes. A total of 67 bridges were selected using the above methodology.

2. *Criterion C*

Registration requirements for each bridge type were outlined in the MPD and have been included in Appendix B. Most of the bridge construction types within these broad material types were given specific registration requirements for main span length or overall bridge length. If no specific registration requirements were listed for a bridge type, the top 5% of bridges were chosen for intensive survey. A total of 66 bridges were selected using the registration requirements in the MPD.

B. RESEARCH METHODOLOGY

The research effort for the intensive survey focused primarily on bridge-specific records and files at the IaDOT; and collections of Iowa State University, The University of Iowa, and the State Historical Society of Iowa. The IaDOT Library in Ames contained reports on specific bridges and highway bypasses, annual reports, five-year construction plans, and other significant primary and secondary resources. Information on the history of the bridge's construction was gleaned from local newspapers available online at Newspaperarchive.com or at the State Historical Society of Iowa Library in Iowa City. For primary road bridges, LBG reviewed the Structural Inventory & Appraisal (SI&A) database and Electronic Resource Management System (eRMS) at IaDOT for bridge-specific data such as blueprints and Iowa SI&A

Sheets. For secondary road bridges, LBG solicited the same type of information from county engineers during and after the fieldwork effort.

Aerial photographs from the online Iowa Geographic Map Server at Iowa State University's Geographic Information Systems Support & Research Facility (<http://cairo.gis.iastate.edu/>) were utilized to analyze changes to cities and towns resulting from highway relocations and bypasses. In some cases, aerial photographs were only available from the 1930s and 1990s. To narrow down dates of development, online county assessor's websites were also consulted.

C. FIELDWORK METHODOLOGY

LBG surveyors documented each bridge with digital photographs that included at least one view of the structure in its setting, plus additional views as necessary to clearly depict the structure, significant elements, and setting. In general, the photographs followed James C. Hippen's guidelines for specific bridge types. In some cases, field conditions dictated the available photographic views of the structure.

During the field survey effort, LBG reviewed the SI&A database and county engineer files of secondary road bridges for information on construction, designers/builders, alterations and dates thereof, and condition. Blueprints were acquired from county engineers when available. Historical research was also conducted at local/county repositories, focusing on sources such as minutes of County Boards of Supervisors and annual reports of county engineers.

The survey was conducted in February 2008 and March 2009 by LBG Architectural Historians Kristie Baynard, Camilla Deiber, Patti Kuhn, and Mike Yengling. Assistant Director Randy Withrow served as Project Manager.

D. POST-FIELDWORK ACTIVITIES

LBG developed an electronic version of the HAER Inventory card utilized in the 1993 survey. These "datacards" record physical, location, and historical information about each bridge included in the field effort and are tied to information in a MS Access database. A single photograph and location map is included on each card. Datacards for each of the surveyed bridges is located in Appendix C.

III. HISTORIC CONTEXT

A. HIGHWAY RELOCATIONS

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the Iowa State Highway Commission (ISHC) began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. By 1955, the ISHC adopted “extensive employment of by-pass highways in the vicinity of cities and towns” (ISHC 1956a:4).

Along with controlled access highways came “urban relief routes”, which were contemplated as early as 1938 in Waterloo where several “high volume” highways converged in the downtown area causing chronic traffic problems (Iowa State Planning Board 1938:4). As bypasses became more common, local businesses expressed their worries about the economic impact of by-pass routes. The public at large did not, however, share these fears.

In 1955, while work was underway on the interstate highway system, improvements were being made to the primary road system in Iowa “for the immediate preservation of the public peace, health and safety and for the promotion of the general welfare.” (ISHC 1956b:4). In 1955, the 56th General Assembly of Iowa authorized the designation of a “substantial portion” of the primary road system as controlled access highways. By 1956, the Commission had defined two different types of controlled access highways: complete control and planned control. Completely controlled access highways allowed connections to selected public roads only—completely prohibiting other crossings and direct private driveway connections. Planned control access highways allowed some private driveway connections and other crossings (ISHC 1957:50-51). By June 30, 1957, the ISHC declared 8,554.7 miles of primary roads as controlled access highways (ISHC 1957:51). These highways included portions of US Highways 20 and 30, considered to be the main east/west controlled access highways through the state.

1. Highway 20

In July 1950, the ISHC was completing plans to relocate a 14-mile long stretch of Highway 20 in Woodbury County to eliminate “sharp and treacherous curves” (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c). The project cost an estimated \$1.25 million (DOT Annual Report 1963/64:21-22).

As early as 1955, the Iowa Highway Commission proposed to relocate U.S. Highway 20 between Dyersville and Center Grove, located just west of Dubuque. The 22-mile long highway was located south of the existing Highway 20 bypassing the towns of Centralia, Epworth, and Farley (*Telegraph-Herald* Aug. 16, 1959:1). The bypass was designed to be a safer route than the narrow Highway 20 that had

numerous dangerous curves. The eastern 3.6 miles of the route had four lanes of traffic; while the remaining route had two lanes. John P. Abrahamson Construction Company of Des Moines and J. C. Costigan Construction Company of Elkader constructed the bridges along the bypass route (*Telegraph-Herald* Dec. 22, 1957:1). By July 20, 1958, all of the bridges along the bypass were complete (*Telegraph-Herald* July 20, 1958:28). The highway was opened to traffic on August 31, 1959. At the time of completion, extension of the four lane route into Dubuque was already being planned (*Telegraph-Herald* Aug. 16, 1959:1).

In 1960, the ISHC proposed to relocate U.S. Highway 20 between Dyersville and IA Highway 38 near Delaware. The 9-mile long highway was located south of the existing Highway 20 bypassing the towns of Earlville and Delaware (*Cedar Rapids Gazette* July 21, 1963:4B). The bypass was designed to be a safer route than the narrow Highway 20. The relocated highway was opened to traffic on November 13, 1964 (*Waterloo Daily Courier* 1964:9). At the same time, other sections of old highway 20 were being widened to accommodate "long" trucks, which were trucks longer than 50'. In 1963, the Iowa Legislature banned long trucks on roads that were less than 22' wide. By the end of the year, only two segments of narrow roads remained, one of which was east of Manchester (*Des Moines Register* January 29, 1964:5).

Development of U.S. Highway 20 proceeded westward towards Waterloo. Plans for the continued relocation of the highway were announced in the ISHC 1967-1974 highway construction program (*Independence Bulletin Journal*, December 30, 1966:4). On June 8, 1967, ISHC held a hearing in Waterloo to outline the proposed route of the Highway 20 from Highway 13 in Delaware County to Waterloo. The \$32.6 million project received approval from most cities along the route (*Waterloo Daily Courier*, June 9, 1967:2). Preliminary design of the highway in Buchanan County wasn't started until June 1969 (*Cedar Rapids Gazette*, June 26, 1969:36). By April 1970, bridges were nearly complete and grading was progressing on the new four-lane highway in western Delaware County. However, hearings were still being conducted on a nearly 6-mile stretch of the highway to the east between Manchester and Delaware in Delaware County (*Independence Bulletin-Journal*, April 10, 1970). Work on this section was let in March 1972. It wasn't until November 15, 1974 that the new freeway was completed from Dubuque to IA Highway 187 in far eastern Buchanan County. The 16.2 mile section of freeway through Delaware and Buchanan Counties cost \$11 million (*Waterloo Courier*, November 14, 1974:11). In June 1973, public hearings were conducted for the Buchanan County segment of the freeway west of IA Highway 187 (*Waterloo Daily Courier*, June 26, 1973:8).

2. Highway 30

In February 1955, the ISHC approved the relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (*Jefferson Bee* 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960:1). ISHC engineers also cited the heavy truck traffic on

Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

3. Highway 34

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenbergh Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1). The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

Relocation of 53 miles of U.S. Highway 34 in southwest Iowa was proposed in ISHC's first five-year construction program published in 1959. The ISHC planned a 7.5 mile extension from the new route to I-29 for 1969 (ISHC 1964/65:12). The bridges were part of the relocation of U.S. 34 around the south side of Glenwood, which was not open for traffic until December 1973 (*Glenwood Opinion Tribune* Dec. 5, 1973:1). The ISHC planned a 7.5 mile extension from the new route to I-29 for 1969 (ISHC 1964/65:12). The ISHC held public hearings on the highway relocation in September 1970 and May 1971 (*Glenwood Opinion Tribune* 1970). The start of the project was delayed by lengthy right-of-way acquisitions that required condemnation hearings in May 1971 and the discovery of a ca. 1850 family cemetery and large pre-historic archaeological sites of the Glenwood Culture (900-1300 AD) near Pony Creek (*Glenwood Opinion Tribune* April 7, 1971:1; May 19, 1971:1). The project, which cut through the hills of Mills County, was also the largest earthmoving effort in the history of the ISHC requiring almost 6 million yards of dirt to be moved (*Glenwood Opinion Tribune* Aug. 23 1971:1).

Plans for the relocation of U.S. Highway 34 through Burlington were announced by the ISHC on November 11, 1965. The new four-lane "superhighway" would run from the MacArthur Bridge in downtown Burlington to $\frac{3}{4}$ miles west of West Burlington. At that time the ISHC estimated the project would cost \$5-8 million. Reasons for the relocation were to provide quick access to downtown, relieve

congestion in several areas along the original route, to provide a link between downtown and shopping areas near Roosevelt Avenue (*The Hawk Eye*, Nov. 11, 1965:1). ISHC Vice-Chairman, Derby Thompson of Burlington, was the main champion of the highway project, which prompted ire from other communities with no freeways. The routing of the highway through the historic North Hill neighborhood was the chief complaint of local residents, who preferred a bypass around the city (*The Hawk Eye*, Dec. 3, 1965:2). Many of the residences in the North Hill area were large 19th century mansions. Burlington Mayor, Carl Hoschek, did not approve the highway plan until October 30, 1967 (*The Hawk Eye*, Nov. 9, 1976:3). Though bids for demolition were taken in August, demolitions did not begin until March 1969 (*The Hawk Eye*, August 14, 1968:1). Construction began in November 1969. Large areas of rock had to be blasted out west of 6th Street before grading could begin. Bids for bridges and structures were taken in January 1970. The overpass bridges on 4th and 5th Street were opened in early January 1971 to no fanfare. Indeed, only a Hawk Eye reporter and his wife marked the occasion by taking a “brisk stroll” across the opened bridges (*The Hawk Eye*, Jan. 6, 1971:3). The first section of the freeway, from the bridge and Central Avenue wasn’t open until February 2, 1974, much of the delay caused by contentious right of way acquisitions (*The Hawk Eye*, Nov. 9, 1976:3). The second segment of the route, from Central to Roosevelt Avenue was opened on June 13, 1975 with a ribbon cutting ceremony beneath a bridge, which served as shelter from a heavy downpour (*The Hawk Eye*, Nov. 9, 1976:3). On November 10, 1976, eleven years after the project was first proposed, the entire length of the highway was open. Two busloads of local and state officials including former ISHC Vice-Chairman Derby Thompson, traveled the \$26 million, 5.5 mile freeway to a ribbon cutting ceremony downtown.

4. Highway 169

The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Highway 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

IV. RESULTS OF THE ARCHITECTURAL SURVEY

A. BRIDGES ELIMINATED FROM PHASE II CONSIDERATION

Nineteen bridges were eliminated from Phase II consideration as a result of the background research and fieldwork efforts. Eleven of these bridges had been replaced (Table 1). An additional eight bridges were given an incorrect structure type in the SI&A database, which dropped them from consideration under the registration requirements of the MPD, *Highway Bridges in Iowa: 1942-1970* (Table 2). Bridge types were verified through examination of blueprints and/or Iowa Structure Inventory and Appraisal Sheets.

TABLE 1. REPLACED PHASE II BRIDGES

FHWA #	Bridge Name	County
113080	Little Turkey River Bridge	Chickasaw
197630	E. 156th Street Bridge	Jasper
279450	Br. N. Lizard Creek Bridge	Pocahontas
270510	280th Street Bridge	Plymouth County
271530	Keystone Ave. Bridge	Plymouth County
272090	Sunset Ave. Bridge	Plymouth County
40990	EB IA 163	Polk County
41000	WB IA 163	Polk County
42440	NB/WB Cottage Grove	Polk County
42530	W/S Conn	Polk County
10560	W 14th Street	Woodbury

TABLE 2. MISTYPED PHASE II BRIDGES

FHWA No.	Bridge Name	County	Comment
61010	130th Street Bridge	Adams	Listed in SI&A as Type 102 (concrete girder; but actually Type 302 (steel girder). Bridge did not meet registration requirements for Type 302.
4490	Elgin Bridge	Fayette	Listed in SI&A as Type 104 (simple span, concrete T-beam); actually a Type 204 (continuous concrete T-beam bridge). Bridge did not meet registration requirements for Type 204.
15460	CR33 Cedar River Bridge	Bremer	As listed in the SI&A, the bridge met the registration requirements as a continuous slab span bridge with a main span in excess of 60'. As built drawings indicated a main span of 45' 6", much less than the 60' threshold required by the registration requirements.
50650	Walkway	Wapello	Bridge was found to be a pedestrian structure only and thus, was eliminated from the list.
97550	Cass County Bridge #90	Cass	Listed in SI&A as Type 102 bridge (concrete stringer, multi-beam or girder); actually a Type 122 (concrete channel-beam bridge). Bridge did not meet registration requirements for Type 122.
176000	FM Bridge	Hardin	This bridge did not meet any of the registration requirements. It was included in the Phase II list by mistake.
183090	Robin Avenue Bridge	Howard	The bridge met the registration requirement for simple span bridges in excess of 50' in length. However, research indicated it was a Type 502, prestressed concrete stringer bridge. The registration requirements for this type are spans in excess of 100'. The Robin Avenue Bridge has a span of 62', thus it was eliminated from consideration.
279660	500th Street Bridge	Pocahontas	Listed in SI&A as Type 100 (Concrete Other); actually Type 104 (Concrete T-Beam). Bridge did not meet registration requirements for Type 104.

B. INTERSTATE EXEMPT BRIDGES

In 2004, the Advisory Council on Historic Preservation (ACHP) approved a Section 106 Exemption Regarding Effects to the Interstate Highway System (Federal Register-Volume 70, Number 46, page 11931) that effectively excludes most of the 46,700-mile Dwight D. Eisenhower System of Interstate and

Defense Highways (Interstate Highway System) from consideration as a historic property under Section 106 of the NHPA. However, under Section II of the Section 106 exemption, certain elements of the Interstate Highway System, such as bridges, tunnels, and rest stops, shall be excluded from the exemption’s provisions if they have national and/or exceptional historic significance. Section III of the Section 106 exemption sets forth the criteria by which the Federal Highway Administration (FHWA) shall identify these elements in consultation with stakeholders in each state. FHWA, at the headquarters level, working with stakeholders at the state and local level, must designate the excluded elements prior to the 50th anniversary of the Interstate Highway System on June 29, 2006.

On January 20, 2006, the IaDOT asked LBG to compile a list of potentially eligible interstate bridges in conjunction with the Iowa Historic Bridge Study. LBG used the contexts and property type discussions in the MPD as a filter to compile a list of those Interstate bridges built between 1942 and 1970 that may be potentially eligible for inclusion in the NRHP. LBG also compiled a list of historic Interstate bridges that were built before 1942, using IaDOT’s Historic Bridge Database. In addition, LBG reviewed background research gathered from IaDOT publications such as *Hiway Hilites*, for any additional interstate bridges that may have been significant in the area of engineering or design. These bridges were then evaluated according to criteria outlined in *Guidance to Apply the Criteria for the Identification of Nationally Significant and Exceptionally Significant Elements of the Interstate Highway System*.

Initially, LBG identified 6 Interstate bridges that met the registration requirements outlined in the Multiple Property Documentation Form, *Highway Bridges in Iowa: 1942-1970*. After evaluating these bridges against the Criteria for the Identification of Nationally Significant and Exceptionally Significant Elements of the Interstate Highway System, LBG removed all 6 bridges from Phase II consideration as they were exempted by the Advisory Council on Historic Preservation (ACHP) through the Section 106 Exemption Regarding Effects to the Interstate Highway System (Federal Register - Volume 70, Number 46, page 11931) (Table 3). LBG concluded that the Iowa-Illinois Memorial Bridge (FHWA #47280), built in 1936, was the only interstate bridge that is eligible for inclusion in the NRHP under Criteria A and C. This bridge was not a part of the current study.

TABLE 3. INTERSTATE EXEMPT PHASE II BRIDGES

FHWA #	Bridge Name	County	Year Built
45670	I-480 Missouri River Bridge	Pottawattamie	1966
28360	NB I-29 Bridge	Harrison	1967
28370	SB I-29 Bridge	Harrison	1967
36330	US 34 Bridge over I-29	Mills	1970
53650	275th Street Bridge over I-29	Woodbury	1959
41480	Beaver Road over I-35	Polk	1958

C. RESULTS OF THE ARCHITECTURAL SURVEY

LBG initially identified 133 bridges for Phase II NRHP evaluation with respect to the MPD registration requirements. As noted above, 19 bridges were eliminated from further consideration due to inaccurate bridge typing and alterations. An additional 6 bridges were eliminated as they were exempted by the Advisory Council on Historic Preservation (ACHP) through the Section 106 Exemption Regarding Effects to the Interstate Highway System. The remaining 108 bridges were evaluated with respect to the registration requirements outlined in the MPD (Table 4).

TABLE 4. RESULTS OF THE ARCHITECTURAL SURVEY

FHWA No.	LOCAL NAME	County	BRIDGE TYPE	YEAR	Eligibility Recommendations
1420	Edgewood Road Bridge	Linn	Steel Continuous Box Beam or Girder-multi	1969	Not Eligible
2120	Harts Mill Road Bridge	Clinton	Continuous Concrete Slab	1970	Not eligible (< 50 yrs. old)
3960	SW 9th Street Bridge	Polk	Prestressed Conc Box Beam or Girder-multi	1967	Not eligible (< 50 yrs. old)
3974	SW 8th Street Viaduct	Polk	Steel Continuous Girder & Floorbeam	1967	Not eligible (< 50 yrs. old)
5040	Veterans Memorial Bridge	Webster	Prestressed Conc Continuous Stringer/Beam/Girder	1968	Not Eligible
11290	Thurman Corporate Line Rd. Bridge	Fremont	Steel Other	1950	Eligible (Criterion C)
13870	IA 5 Bridge	Appanoose	Steel Continuous Frame (Rigid)	1950	Eligible (Criterion C)
15200	US 30 Des Moines River Bridge	Boone	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1963	Not eligible
15210	US 30 Des Moines River Bridge	Boone	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1963	Not eligible
16140	York Avenue Bridge	Buchanan	Prestressed Conc Stringer/Beam/Girder	1970	Not Eligible
18490	CR F44 Bridge	Cedar	Steel Continuous Girder & Floorbeam	1948	Eligible (Criterion C)
20860	US 30 Mississippi River Bridge	Clinton	Steel Suspension	1956	Eligible (Criterion A and C)
23110	US 20 Westbound Bridge	Delaware	Prestressed Conc Stringer/Beam/Girder	1963	Not Eligible
23370	110th Avenue Bridge	Delaware	Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)	1970	Not Eligible
23380	140th Avenue Bridge	Delaware	Prestressed Conc Stringer/Beam/Girder	1970	Not Eligible
23620	Central Avenue Bridge	Des Moines	Prestressed Conc Stringer/Beam/Girder	1970	Not Eligible (< 50 years of age)
23650	5th Street Bridge	Des Moines	Prestressed Conc Stringer/Beam/Girder	1970	Not Eligible (< 50 years of age)
23780	US Hwy 20 Bridge	Dubuque	Prestressed Conc Box Beam or Girder-multi	1958	Eligible, Criterion A
23820	EB US Hwy 20 Bridge	Dubuque	Prestressed Conc Stringer/Beam/Girder	1958	Not Eligible
23830	WB US Hwy 20 Bridge	Dubuque	Prestressed Conc Stringer/Beam/Girder	1958	Not Eligible
23940	US Hwy 61 Bridge	Dubuque	Steel Continuous Stringer/Beam/Girder	1957	Not Eligible
23950	Grandview Bridge	Dubuque	Steel Stringer/Beam/Girder	1957	Not Eligible
24102	US Hwy 151 Bridge	Dubuque	Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)	1970	Not Eligible
25610	US Hwy 30 Bridge	Greene	Steel Continuous Stringer/Beam/Girder	1957	Not eligible
25620	US Hwy 30 Bridge	Greene	Continuous Concrete Slab	1957	Not eligible
25630	US Hwy 30 Bridge	Greene	Steel Continuous Stringer/Beam/Girder	1957	Not eligible
25640	US Hwy 30 Bridge	Greene	Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)	1957	Not eligible
25650	US Hwy 30 Bridge	Greene	Steel Stringer/Beam/Girder	1957	Not eligible
29080	100th Street Bridge	Humboldt	Conc Continuous Box Beam or Girder-multi	1957	Eligible (Criterion C)
31570	US Hwy 6 Bridge	Johnson	Steel Continuous Stringer/Beam/Girder	1958	Eligible (Criterion A)
33470	EB US 30 Bridge	Linn	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1953	Eligible (Criterion C)
35160	IA 5 Bridge	Marion	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1965	Not Eligible
35200	Red Rock Lake Bridge	Marion	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1965	Eligible, Criteria A and C
36810	Decatur Bridge	Monona	Steel Continuous Truss-thru	1951	Eligible (Criteria A and C)
40950	EB IA 163 Bridge	Polk	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1965	Not Eligible
40960	WB IA 163 Bridge	Polk	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1965	Not Eligible
40970	EB IA 163 Bridge	Polk	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
40980	WB IA 163 Bridge	Polk	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
43130	Broadway Viaduct	Pottawattamie	Steel Continuous Stringer/Beam/Girder	1955	Not eligible
43270	US 6 Highway Bridge	Pottawattamie	Steel Continuous Stringer/Beam/Girder	1961	Eligible, Criterion C
46870	US 61 Bridge	Scott	Steel Continuous Stringer/Beam/Girder	1956	Not Eligible

Intensive Architectural Survey of Iowa Primary and Secondary Road Bridges

FHWA No.	LOCAL NAME	County	BRIDGE TYPE	YEAR	Eligibility Recommendations
46880	US 61 Bridge	Scott	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1958	Not Eligible
48710	EB US 30 Bridge	Story	Prestressed Conc Stringer/Beam/Girder	1963	Not Eligible
48720	WB US 30 Bridge	Story	Prestressed Conc Stringer/Beam/Girder	1963	Not Eligible
48730	EB US 30 Bridge	Story	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1963	Not Eligible
48740	WB US 30 Bridge	Story	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1963	Not Eligible
48780	EB US 30 Bridge	Story	Continuous Concrete Slab	1964	Not Eligible
48790	EB US 30 Bridge	Story	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
48800	WB US 30 Bridge	Story	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
48810	EB US 30 Bridge	Story	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
48820	WB US 30 Bridge	Story	Steel Continuous Stringer/Beam/Girder	1963	Not Eligible
50450	Side Road of US 34	Wapello	Continuous Concrete Slab	1963	Not Eligible
50460	EB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50470	WB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50480	EB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50490	WB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50500	EB US 34 Bridge	Wapello	Steel Continuous Stringer/Beam/Girder	1966	Not Eligible
50510	WB US 34 Bridge	Wapello	Steel Continuous Stringer/Beam/Girder	1966	Not Eligible
50520	EB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50530	WB US 34 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1966	Not Eligible
50540	US 34 Bridge	Wapello	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1966	Not Eligible
50545	US 34 Bridge	Wapello	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1967	Not Eligible
50550	EB US 34 Bridge	Wapello	Steel Continuous Stringer/Beam/Girder	1967	Not Eligible
50560	WB US 34 Bridge	Wapello	Steel Continuous Stringer/Beam/Girder	1968	Not Eligible
50570	Main Street Bridge	Wapello	Continuous Concrete Slab	1967	Not Eligible
50640	US 63 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1964	Eligible (Criterion C, Crit. Cons. G)
52170	NB US 169 Bridge	Webster	Continuous concrete T-beam	1960	Not Eligible
52180	SB US 169 Bridge	Webster	Continuous concrete T-beam	1960	Not Eligible
52190	NB US 169 Bridge	Webster	Prestressed Conc Stringer/Beam/Girder	1960	Not Eligible
52200	SB US 169 Bridge	Webster	Prestressed Conc Stringer/Beam/Girder	1960	Not Eligible
52210	NB US 169 Bridge	Webster	Prestressed Conc Stringer/Beam/Girder	1960	Not Eligible
52220	SB US 169 Bridge	Webster	Prestressed Conc Stringer/Beam/Girder	1960	Not Eligible
52540	US 52 Bridge	Winneshiek	Conc Arch Deck (w/no fill over top)	1963	Eligible (Criterion C)
52590	IA 9 Bridge	Winneshiek	Prestressed Conc Stringer/Beam/Girder	1969	Not Eligible
52600	Pleasant Avenue Bridge	Winneshiek	Steel Continuous Stringer/Beam/Girder	1969	Not Eligible
52850	EB US 20 Bridge	Woodbury	Continuous Concrete Slab	1959	Not Eligible
52860	WB US 20 Bridge	Woodbury	Continuous Concrete Slab	1953	Not Eligible
52870	EB US 20 Bridge	Woodbury	Continuous concrete T-beam	1959	Not Eligible
52880	WB US 20 Bridge	Woodbury	Continuous concrete T-beam	1953	Not Eligible
52890	EB US 20 Bridge	Woodbury	Continuous concrete T-beam	1960	Not Eligible
53070	NB IA 376	Woodbury	Steel Stringer/Beam/Girder	1956	Eligible (Criterion C)
80020	U.S. Highway 63 Bridge	Bremer	Steel Welded I-Girder w/Diaphragm (2 Girders)	1963	Not eligible
80270	Leroy 3-1 Bridge	Bremer	Conc Stringer, Multi-beam or Girder	1955	Not eligible
88910	Franklin Avenue Bridge	Butler	Timber Stringer/Beam/Girder	1952	Not eligible
150370	80th Street Bridge	Fayette	Conc Girder & Floorbeam	1953	Eligible (Criterion C)
152830	Great River Road Bridge	Fayette	Continuous concrete T-beam	1953	Not eligible
162200	CR P14 Bridge	Greene	Continuous concrete T-beam	1952	Not eligible
163930	I-4 Blackhawk Bridge	Grundy	Timber Stringer/Beam/Girder	1949	Not eligible
182470	Jade Avenue Bridge	Howard	Conc Stringer, Multi-beam or Girder	1950	Eligible (Criterion C)
240110	94th Place Bridge	Marion	Conc Stringer, Multi-beam or Girder	1958	Eligible (Criterion C)
240385	Red Rock Dam Bridge	Marion	Prestressed Conc Stringer/Beam/Girder	1967	Eligible (Criteria A and C, Crit. Cons. G)
257450	Trolley Road Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1956	Eligible (Criterion C)
257830	York Avenue Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1958	Eligible (Criterion C)
258160	N. Isett Rd. Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1956	Eligible (Criterion C)
275070	200th Street Bridge	Plymouth	Timber Stringer/Beam/Girder	1953	Not Eligible

FHWA No.	LOCAL NAME	County	BRIDGE TYPE	YEAR	Eligibility Recommendations
280555	IA 316 Bridge	Polk	Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)	1968	Not eligible (< 50 yrs. old)
283308	Madrid Avenue Bridge	Polk	Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)	1970	Not eligible (< 50 yrs. old)
291570	80th Street Bridge	Poweshiek	Timber Stringer/Beam/Girder	1957	Not eligible
305530	1100th Street Bridge	Shelby	Prestressed Conc Channel beam	1954	Eligible (Criterion C)
325310	167th Street Bridge	Union	Conc Stringer, Multi-beam or Girder	1952	Eligible (Criterion C)
335570	297th Street Bridge	Washington	Conc Stringer, Multi-beam or Girder	1955	Eligible (Criterion C)
336201	Underwood Avenue Bridge	Washington	Conc Stringer, Multi-beam or Girder	1953	Eligible (Criterion C)
600954	EB US 34 Bridge	Mills	Prestressed Conc Stringer/Beam/Girder	1972	Not Eligible
600956	WB US 34 Bridge	Mills	Prestressed Conc Stringer/Beam/Girder	1972	Not Eligible
602830	EB US30/US 61 Bridge	Clinton	Prestressed Conc Stringer/Beam/Girder	1974	Not Eligible
602832	WB US 30/US 61 Bridge	Clinton	Prestressed Conc Stringer/Beam/Girder	1974	Not Eligible
602945	4th Street Bridge	Des Moines	Prestressed Conc Stringer/Beam/Girder	1970	Not Eligible (< 50 years of age)

D. NRHP ELIGIBLE BRIDGES

LBG identified 25 bridges that met the registration requirements for the MPD and thus are eligible for inclusion in the NRHP (Table 5). Ten of the bridges are steel structures including steel suspension (Type 313), continuous rigid frame (Type 407), continuous thru truss (Type 410), continuous girder & floorbeam (Type 403), steel continuous girder (Type 402), steel continuous welded I-girder (Type 432), and even a steel Bailey bridge (Type 300). The remaining 15 are concrete bridges, nine of which are the concrete stringer, multi-beam or girder bridge type (Type 102). The other concrete bridge types include prestressed concrete box beam (Type 505), continuous box beam (Type 205), concrete arch with no fill (Type 181), concrete girder and floorbeam (Type 103), and prestressed concrete channel beam (Type 522). Three bridges are eligible for listing under Criterion A as they were part of a highway relocations or bypasses that appear to have been the direct cause of significant development or major changes in land use. The remaining bridges met registration requirements under Criterion C. Three bridges are less than 50 years of age; but possess characteristics of exceptional importance and thus meet Criteria Consideration G. Eight bridges listed in Table 4 as Not Eligible <50 years of age met one or more registration requirements; however, did not meet Criteria Consideration G. These bridges should be re-evaluated with respect to NRHP Criteria once they reach 50 years of age.

TABLE 5. NRHP ELIGIBLE PHASE II BRIDGES

FHWA No.	LOCAL NAME	County	BRIDGE TYPE	YEAR	Eligibility Recommendations
11290	Thurman Corporate Line Rd. Bridge	Fremont	Steel Other	1950	Eligible (Criterion C)
13870	IA 5 Bridge	Appanoose	Steel Continuous Frame (Rigid)	1950	Eligible (Criterion C)
18490	CR F44 Bridge	Cedar	Steel Continuous Girder & Floorbeam	1948	Eligible (Criterion C)
20860	US 30 Mississippi River Bridge	Clinton	Steel Suspension	1956	Eligible (Criterion A and C)
23780	US Hwy 20 Bridge	Dubuque	Prestressed Conc Box Beam or Girder-multi	1958	Eligible, Criterion A
29080	100th Street Bridge	Humboldt	Conc Continuous Box Beam or Girder-multi	1957	Eligible (Criterion C)
31570	US Hwy 6 Bridge	Johnson	Steel Continuous Stringer/Beam/Girder	1958	Eligible (Criterion A)
33470	EB US 30 Bridge	Linn	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1953	Eligible (Criterion C)
35200	Red Rock Lake Bridge	Marion	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	1965	Eligible, Criteria A and C
36810	Decatur Bridge	Monona	Steel Continuous Truss-thru	1951	Eligible (Criteria A and C)
43270	US 6 Highway Bridge	Pottawattamie	Steel Continuous Stringer/Beam/Girder	1961	Eligible, Criterion C
50640	US 63 Bridge	Wapello	Prestressed Conc Stringer/Beam/Girder	1964	Eligible (Criterion C, Crit. Cons. G)

FHWA No.	LOCAL NAME	County	BRIDGE TYPE	YEAR	Eligibility Recommendations
52540	US 52 Bridge	Winneshiek	Conc Arch Deck (w/no fill over top)	1963	Eligible (Criterion C, Crit. Cons. G)
53070	NB IA 376	Woodbury	Steel Stringer/Beam/Girder	1956	Eligible (Criterion C)
150370	80th Street Bridge	Fayette	Conc Girder & Floorbeam	1953	Eligible (Criterion C)
182470	Jade Avenue Bridge	Howard	Conc Stringer, Multi-beam or Girder	1950	Eligible (Criterion C)
240110	94th Place Bridge	Marion	Conc Stringer, Multi-beam or Girder	1958	Eligible (Criterion C)
240385	Red Rock Dam Bridge	Marion	Prestressed Conc Stringer/Beam/Girder	1967	Eligible (Criteria A and C, Crit. Cons. G)
257450	Trolley Road Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1956	Eligible (Criterion C)
257830	York Avenue Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1958	Eligible (Criterion C)
258160	N. Isett Rd. Bridge	Muscatine	Conc Stringer, Multi-beam or Girder	1956	Eligible (Criterion C)
305530	1100th Street Bridge	Shelby	Prestressed Conc Channel beam	1954	Eligible (Criterion C)
325310	167th Street Bridge	Union	Conc Stringer, Multi-beam or Girder	1952	Eligible (Criterion C)
335570	297th Street Bridge	Washington	Conc Stringer, Multi-beam or Girder	1955	Eligible (Criterion C)
336201	Underwood Avenue Bridge	Washington	Conc Stringer, Multi-beam or Girder	1953	Eligible (Criterion C)

1. Thurman Corporate Line Rd. Bridge, Fremont County

FHWA: 11290

Bridge Type: Steel Other (Bailey Bridge)

Year Built: 1950

Eligibility: Eligible (Criterion C)

Constructed in 1950, this single-span 100' by 17.4' steel double panel "Bailey Bridge" carries Level B Road/Thurman Corp. Line over Plum Creek in Thurman. While no specific information could be found on the purchase of this bridge; in 1949, the Fremont County Board of Supervisors purchased "Bailey Bridge spans" from the Highway Bridge Company for \$10,625.00 (*Hamburg Reporter* 1949:7). One year earlier, Mills County, to the north, purchased a Bailey Bridge to span Silver Creek (*Council Bluffs Nonpareil* 1948:12).

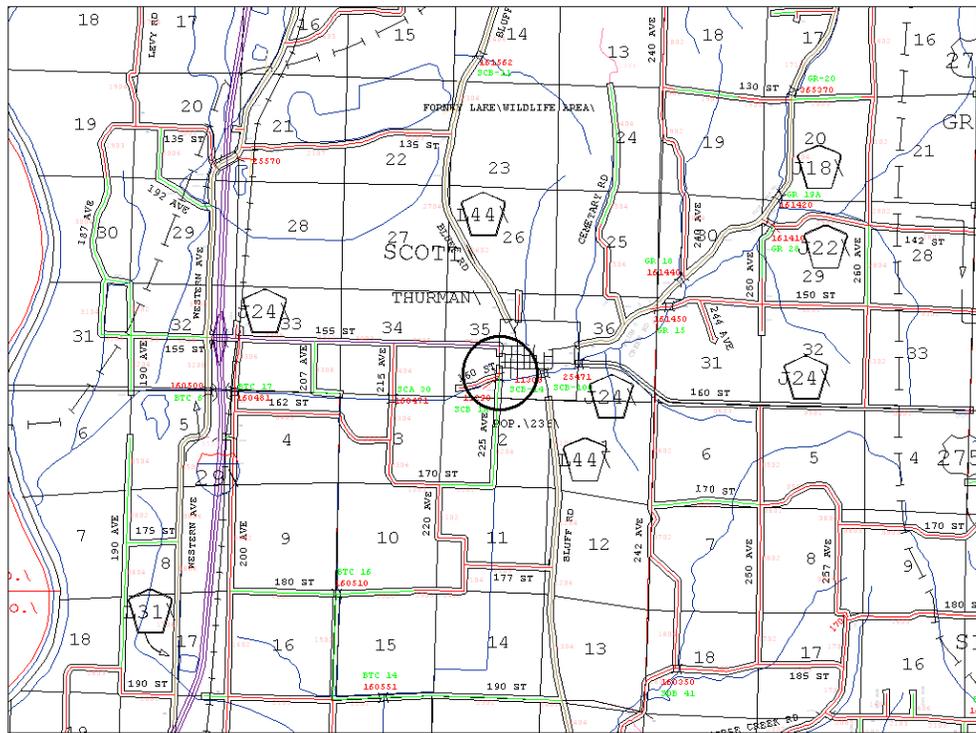
There are two additional Bailey bridges in the county (FHWA 6215 and 159460), one of which (6215) was installed in 2007 after a flood had washed away a bridge. A Bailey bridge is also used as an approach span to a pony truss northeast of Hamburg (FHWA 158970). All of the Bailey bridges in Fremont County are standard double trusses. Steel girders on 5' centers carry steel I-beams, over which 3'x6' creosoted timber nailers support 3'x12' creosoted timber plank decking. Categorized as Type 300 in the IaDOT's SI&A database, there appears to be only six Bailey bridges in the state including the three aforementioned bridges, one in Lucas County (FHWA 226860), one in Jefferson County (FHWA 201610), and one in Buchanan County (FHWA 81500).

The British Bailey Bridge was invented by Donald Bailey, a British engineer, to withstand the heavier 40-ton tank. His design was adopted by the US military at the outset of World War II (M1 in US nomenclature). They were desirable for their ease of transportation and rapid set-up in wartime situations. No specialized equipment was needed, and all of the parts needed for a Bailey could be moved by 5-ton dump trucks and trailers. Standardized designs and modular components meant that span lengths could be adapted to each location. After the war, Bailey bridges were sold as surplus as well as distributed through the Federal Works Agency as part of their disaster relief program (*Council Bluffs Nonpareil* 1947:1). Several Bailey bridges were sent to Iowa as there had been extreme flooding in the summer of 1946 that had washed out many bridges.

The Thurman Bailey bridge meets several registration requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the NRHP under Criterion C. The



Plate 1. View SW of Thurman Line Rd. Bridge



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Fremont County, IA 2010

Figure 2. Location of Thurman Line Rd. Bridge

bridge is a rare survivor of the Bailey bridge type that was used after WWII by several municipalities across the state to replace flood ravaged bridges or as an economical solution for a new crossing. The bridge is also a specialized design of recognized importance for its ease of construction and adaptability to many different situations. The bridge has a high degree of integrity with only minor repairs to the wood deck being completed in 2004.

2. IA 5 Bridge, Appanoose County

FHWA: 13870

Bridge Type: Steel Continuous Frame (Rigid)

Year Built: 1950

Eligibility: Eligible (Criterion C)

This three-span 182' x 26' rigid continuous steel frame bridge carries IA 5 over Little Shoal Creek southwest of Cincinnati. The bridge was built in 1950 to replace a 42' x 15' wood bridge. The channel of the creek was moved to the east and this new bridge was built. The bridge consists of two 55' end spans and a 70' center span and features a continuous I-Beam superstructure and a riveted steel pier leg substructure. The tapered steel legs measure over 18' from the I-beams to the concrete piers. The open steel rails have been replaced with solid concrete. The deck was also resurfaced in 1988. The bridge was designed by the ISHC in April 1948.

In 1949, relocation of IA Highway 5 north of Cincinnati was underway. In February 1950, the ISHC was working with the Missouri State Highway Commission on the relocation of the highway to the Missouri state line. No details were found on the highway or bridge's construction. However, an article on a newly finished roadside park on the "new highway" in the November 29, 1950 issue of the *Centerville Daily Iowegian* indicated that the highway was completed by that time (*Centerville Daily Iowegian* November 29, 1950:3).

This steel continuous rigid frame bridge is an early example of its type that was rarely used in Iowa. The simplest form of rigid frame bridge consists of a horizontal beam or girder span supported by legs (piers) at each end to which the beam is rigidly connected. Rigid frame bridges are continuous structures that have been called a hybrid of the arch and girder bridge because some of the vertical moments on the deck become horizontal thrusts in the legs that must be restrained by the abutments or leg foundations. The Steel Continuous Rigid Frame bridge (Type 407) is generally used for short spans such as highway overpasses and usually are one span and seldom consists of more than two spans. The Steel Continuous Rigid Frame bridge was considered costly and less practical than the concrete version and found little use for highways until the development of the slant-leg continuous steel rigid frame bridge in the 1960s. By the 1960s steel prices had eased while labor costs continued to rise, making steel bridges that could be quickly erected in any weather popular for overpasses on time sensitive limited-access highway projects.

The IA Highway 5 Bridge meets registration requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the NRHP under Criterion C. The bridge is an early well-preserved example of a steel continuous rigid frame bridge that was rarely used in Iowa. The bridge is also significant as it is a multispan bridge, which is rarely seen in this bridge type. The bridge has a high degree of integrity with only deck resurfacing and handrail replacement.

3. CR F44 Bridge, Cedar County

FHWA: 18490

Bridge Type: Steel Continuous Girder & Floorbeam

Year Built: 1948

Eligibility: Eligible (Criterion C)

Carrying Old Iowa 979 (now CR F44/290th Street) over the Cedar River in Rochester, this eight-span 1,145' by 26' bridge was constructed in 1948. The bridge has concrete piers that support steel continuous girders and floorbeams. Bids for the new bridge were opened on December 10, 1946 (*Burlington Hawk-eye Gazette* Nov. 22, 1946:1). A bid for \$290,396.43 from the Amos Mellberg Co. of Cedar Rapids was approved by the ISHC on April 16, 1947 (*Iowa City Press-Citizen* April 16, 1947:1). On May 4, a section of the existing iron truss bridge at Rochester collapsed after a truck passed over the span (*Tipton Advertiser* May 6, 1948:1). This sped up completion of the new bridge and by late November 1948, the bridge was completed and opened to traffic in January 1949 (*Iowa City Press-Citizen* November 23, 1948:1). In 1984, the concrete deck was replaced and the steel members were cleaned and painted.

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPD as a large bridge of exceptional span or overall length that are "in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective." The CR F44 Bridge is a steel continuous girder and floorbeam bridge (Type 403) that is in the 95th percentile in main span length. The 95th percentile for Type 403 bridges is 154', which is length of the six main spans of the CR F44 Bridge. The bridge does represent a major engineering effort as it was the earliest Type 403 bridge to exceed 150' in span length; and thus, does meet the registration requirements under Criterion C.



Plate 3. View SW of CR F44 Bridge

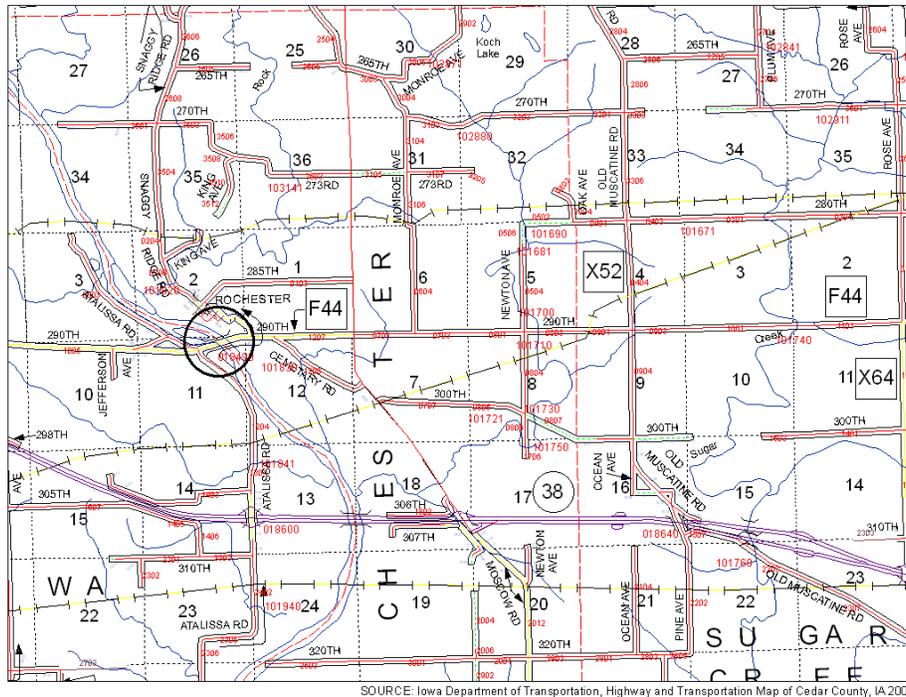


Figure 4. Location of CR F44 Bridge

4. US 30 Mississippi River Bridge, Clinton County

FHWA: 20860
Bridge Type: Steel Suspension
Year Built: 1956
Eligibility: Eligible (Criterion A and C)

This 4,165' x 26' steel suspension bridge carries State Highway 30 from Clinton, Iowa across the Mississippi River into Illinois. Concrete piers and a steel superstructure support a cast-in-place concrete deck. The crossing has 15 approach spans on the west side (6 beam spans and 9 girder spans) and 14 approach spans in the east side, all of which are girder spans. The longest span over the Mississippi River is a 644' long steel suspension structure, the main cables of which are 8" in diameter and 1,400' long.

In 1944, an act of the U.S. Congress authorized the organization of the City of Clinton Bridge Commission to supervise the planning, financing and construction of a new bridge across the Mississippi. The first meeting of the seven-man board was held on April 5, 1945 (*Clinton Herald*, June 29, 1956:20). Traffic counts and surveys were conducted in 1945, 1946, and 1953 to gather information in support of the financing and potential location of the new bridge (*Clinton Herald*, June 29, 1956:29). The ISHC contracted Modjeski and Masters of Mechanicsburg, Pennsylvania to design the bridge. Plans were drawn up in 1951 and finalized in January 1954. Work on the bridge began on September 21, 1954. Allied Structural Steel Companies of Clinton provided the steel for the bridge. The bridge was completed on June 30, 1956. The total cost of the bridge was \$6.8 million (*City of Clinton Bridge Commission 1956:2*). In 1976, repairs were made to the west abutment and four piers on the west side of the bridge.

The bridge was included in the Phase II survey as it is a large of exceptional span or overall length, which according to the registration requirements in the MPD includes any steel suspension bridge. The steel suspension bridge is the only one of its type (Type 313) built in the state. As such, the U.S. 30 Mississippi River Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet several registration requirements outlined in the MPD for bridges under Criterion C as a large exceptional span, as an exceptional example of work by an important engineer such as Modjeski and Masters; and under Criterion A as a bridge that was built as part of a large bridge building initiative.



Plate 4. View NW of US 30 Mississippi River Bridge

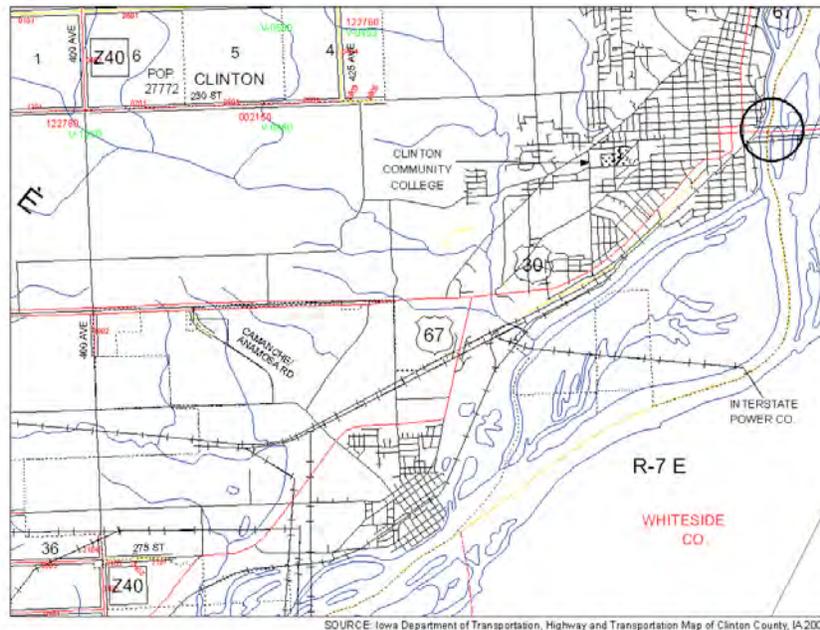


Figure 5. Location of US 30 Mississippi River Bridge

5. US Hwy 20 Bridge, Dubuque County

FHWA: 23780

Bridge Type: Prestressed Conc Box Beam or Girder-multi

Year Built: 1958

Eligibility: Eligible, Criterion A

This 502' by 28' bridge carries westbound US 20 south of Dyersville. Prestressed concrete box girders support cast-in-place concrete decking. The five-span bridge has a three 109' center spans and 85'6" approach spans. The concrete piers have untreated wood piles; while the abutments have creosoted wood piles. A large bend in the Maquoketa River was channelized for bridge crossing. The structure was designed by the ISHC in May 1957.

As early as 1955, the Iowa Highway Commission proposed to relocate U.S. Highway 20 between Dyersville and Center Grove, located just west of Dubuque. The 22 mile long highway was located south of the existing Highway 20 bypassing the towns of Centralia, Epworth, and Farley (*Telegraph-Herald* Aug. 16, 1959:1). The bypass was designed to be a safer route than the narrow Highway 20 that had numerous dangerous curves. The eastern 3.6 miles of the route had four lanes of traffic; while the remaining route had two lanes. John P. Abrahamson Construction Company of Des Moines and J. C. Costigan Construction Company of Elkader constructed the bridges along the bypass route (*Telegraph-Herald* Dec. 22, 1957:1). By July 20, 1958, all of the bridges along the bypass were complete (*Telegraph-Herald* July 20, 1958:28). The highway was opened to traffic on August 31, 1959 (*Cedar Rapids Gazette*, August 31, 1959:9). At the time of completion, extension of the four lane route into Dubuque was already being planned (*Telegraph-Herald* Aug. 16, 1959:1).



Plate 5. View North of US Highway 20 Bridge

The US Highway 20 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 through Dubuque County. Registration requirements outlined in the MPD state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does appear to have been the direct cause of significant development or major changes in land use in three towns along the route: Epworth, Farly, and Dyersville. While the highway certainly changed the land use of property in the path of its construction, it appears that the artery substantially increased each town by approximately 30%. All three towns experienced residential growth, including a large residential development on the north side of the highway in Dyersville. Aerial photographs from the 1950s, 1960s, and 1990s show large commercial developments on the south side of Dyersville, as well as a high school, medical center, and golf course. A seminary was also built in Epworth after the highway was relocated. Given these facts, LBG concludes that the US Highway 20 Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in West Burlington. The bridge does not meet any of the other registration requirements for Type 505 bridges. The bridge does not meet any of the other registration requirements for Type 505 bridges.

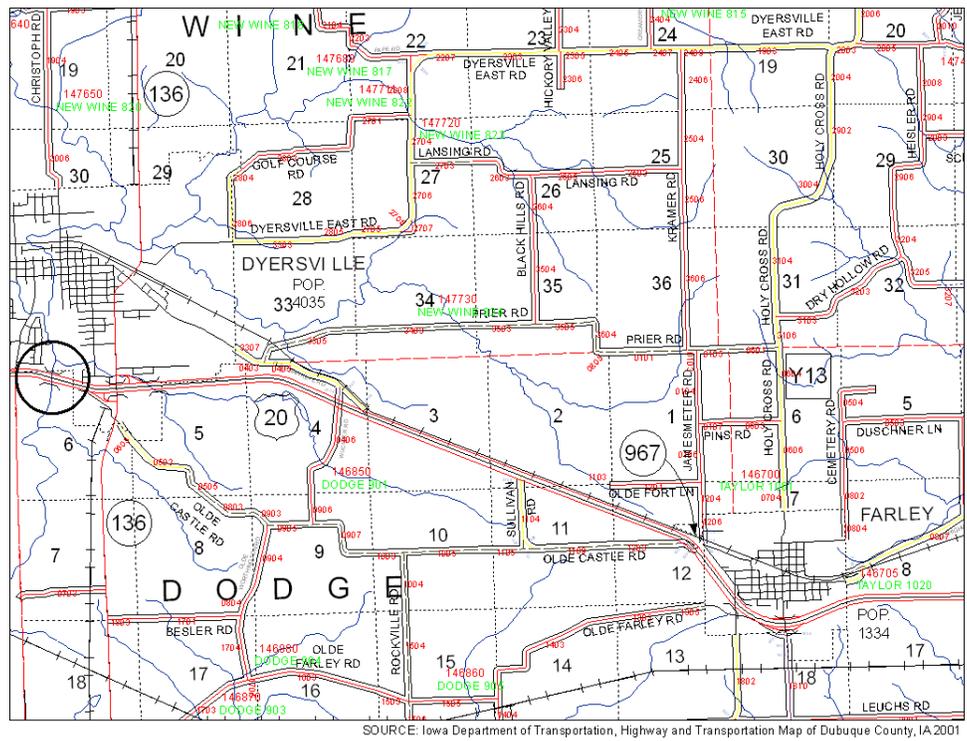


Figure 6. Location of US Highway 20 Bridge

6. 100th Street Bridge, Humboldt County

FHWA: 29080

Bridge Type: Conc Continuous Box Beam or Girder-multi

Year Built: 1957

Eligibility: Eligible (Criterion C)

Carrying 100th Street over the East Branch of the Des Moines River on the Humboldt/Kossuth County line, this three-span continuous concrete box beam bridge is 282' long with a roadway width of 28.2'. Concrete piers support concrete cast-in-place decking. No historical information on the construction of the bridge could be found.

The 100th Street Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the MPD as a large continuous box beam bridge of an exceptional span length. The registration requirements include box beam spans of over 100' in length as exceptional. With a main span of 109', this bridge does meet that requirement. The 100th Street Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

The application of the principles of continuity were applied to later forms of concrete spans including Continuous Box Girders (Type 205) by the mid-1940s. Continuous construction and cast-in-place concrete were a natural marriage for long bridges made of numerous repetitive short-to-medium spans, as well as approaches and viaducts. The short sections of longitudinal steel reinforcement needed only to be overlapped and “tied” together to function as a single continuous structural element once the concrete hardened around it. The “work” to reap the advantages of the continuous concrete bridge was in the design rather than in the construction so state highway departments were quick to adopt the continuous beam and girder bridge forms for a multitude of applications. The labor, materials and equipment required to build simple-span concrete bridges was the same for continuous bridges.



Plate 6. View SW of 100th Street Bridge

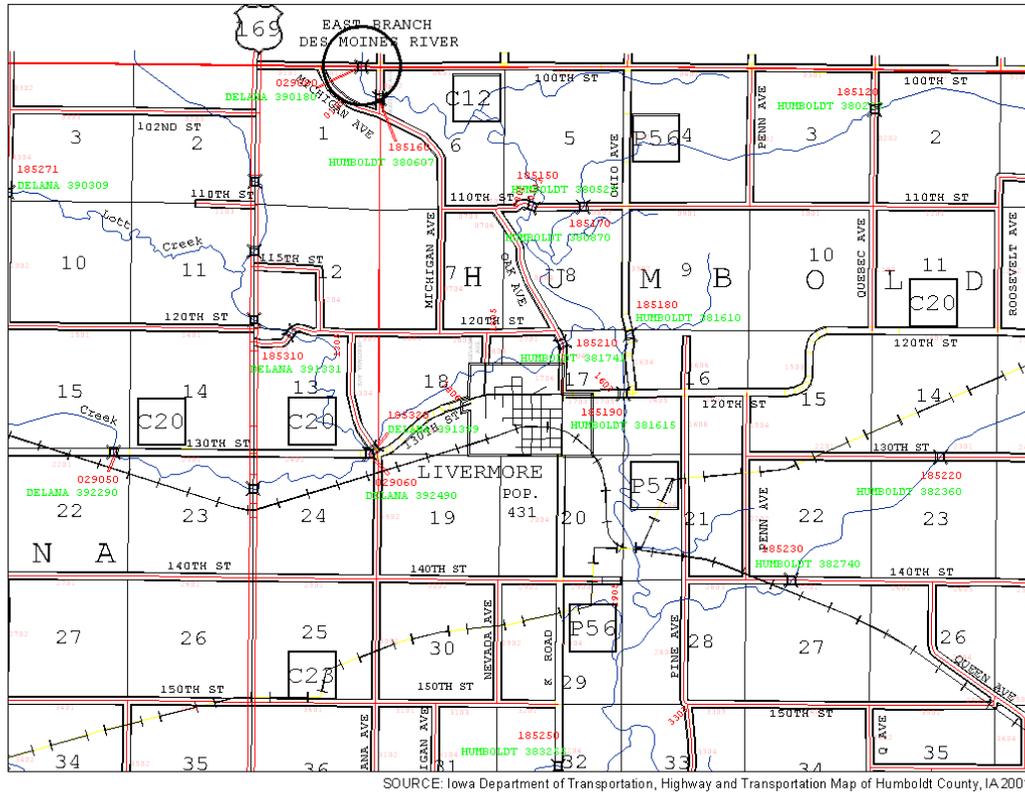


Figure 7. Location of 100th Street Bridge

7. US Hwy 6 Bridge, Johnson County

FHWA: 31570
Bridge Type: Steel Continuous Stringer/Beam/Girder
Year Built: 1958
Eligibility: Eligible (Criterion A)

Spanning the Iowa River in Iowa City, this 320' x 52' continuous I-beam bridge was built in 1957 as part of the relocation of U.S. Highway 6 to the south side of the city. Concrete abutments and steel I-beams support a concrete cast-in-place deck. The center span measures 70' and the end spans measure 55' long. In May 1955, the ISHC began surveying for the possible relocation of Highway 6. Traffic studies conducted by ISHC in the mid-1950s indicated that approximately 38% of the traffic on the highway was through traffic; thus, they recommended that a bypass be constructed to alleviate congestion in Iowa City (*Iowa City Press-Citizen*, September 24, 1956:1). By the spring of 1956, the route was set along the southern edge of Iowa City from the junction of Highways 1 and 218 to Lower Muscatine Road to the southeast. On December 11, 1956, the contract for the bridge construction was let to A. Olson Construction Company of Waterloo for \$223,807 (*Iowa City Press-Citizen* December 12, 1956:1). In April 1957, work began on the wood pilings for the bridge (*Iowa City Press-Citizen* April 17, 1957:3). By November 1957, all four concrete piers were in place and work was expected to continue through the winter (*Iowa City Press-Citizen* November 14, 1957:1).



Plate 7. View NW of US Highway 6 Bridge

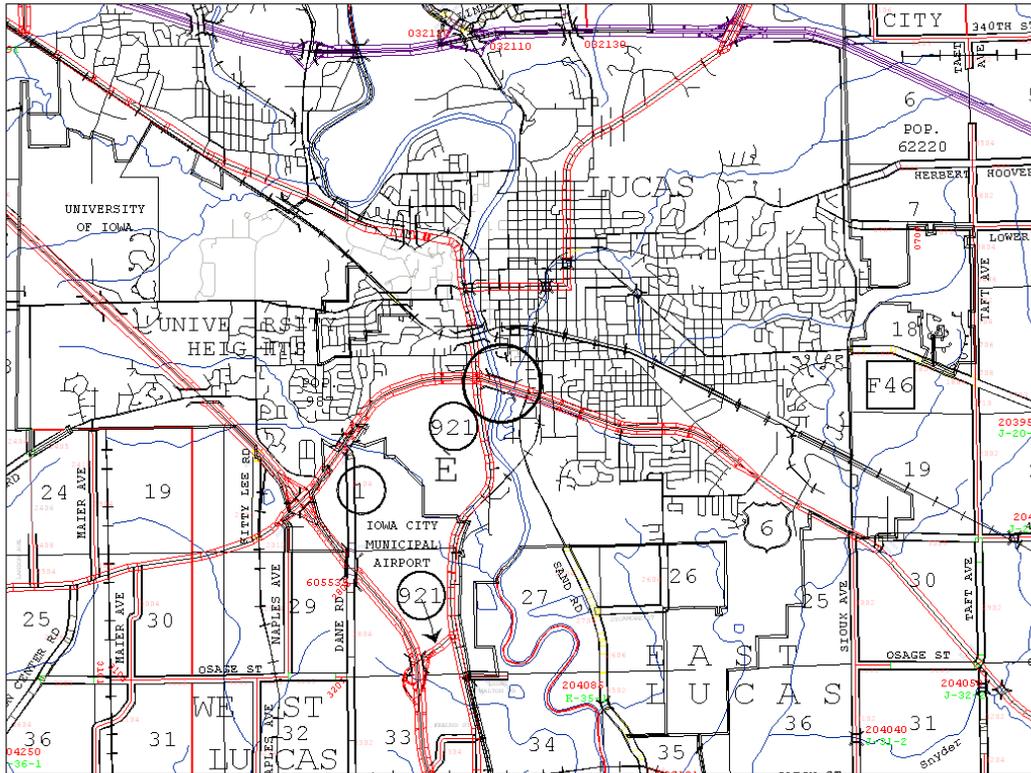


Figure 8. Location of US Highway 6 Bridge

The US Highway 6 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 6. Registration requirements outlined in the MPD state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." A new Proctor & Gamble plant was constructed on Lower Muscatine Road in 1955/56. This, along with the construction of the Highway 6 bypass, caused significant residential, commercial, and industrial developments along the newly built highway corridor. Aerial photographs from the 1950s, 1960s, and 1970s show residential developments mainly north of the new highway. Commercial businesses were constructed along the highway just east of the river as was the Sycamore Mall, constructed in 1966-69. Residential developments also grew significantly on the east side of the city, though that may have been influenced more by topography than proximity to the new highway. In October 1957, the City proposed to annex tracts along the new highway (*Iowa City Press-Citizen*, October 31, 1957:1). Given these facts, LBG concludes that the US Highway 6 Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in southern Iowa City. The bridge does not meet any of the other registrations requirements for Type 402 bridges.

The Steel Continuous Stringer, Multi-beam or Girder bridge (Type 402) is in most ways identical to its simple span version with the primary difference being the continuation of the structural member over one or more intermediate piers, and the resultant need for only a single bearing at the intermediate pier rather than two separate bearings (see description of Type 302 above). Riveted, bolted or welded butt splices of the structural members to make them structurally a continuous beam are often located not over the piers but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

8. *EB US 30 Bridge, Linn County*

FHWA: 33470

Bridge Type: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

Year Built: 1953

Eligibility: Eligible (Criterion C)

This 8-span bridge carries eastbound US 30 over the Cedar River several miles southeast of Cedar Rapids. The steel continuous welded I-girder bridge is 1140' in length with 8 spans, the longest of which is 150'. The bridge was designed by the Kansas City firm of Howard, Needles, Tammen and Bergendoff (HNTB). Drawings of the bridge were completed by mid-July 1951. Later that year, the bridge construction contract was awarded to the Iowa Bridge Company of Des Moines for \$532,708. Construction on the bridge began in November 1951. By July 1953, the piers and steelwork of the bridge had been completed and half of the concrete brick deck had been poured. By November 10, 1953, the Highway 30 cutoff was opened to traffic.

The bridge was included in the Phase II survey as it was a large bridge of exceptional overall length; though it did not meet the specific registration requirements for exceptional span length. The US Hwy 30 Cedar River Bridge is eligible for inclusion in the NRHP as it meets registration requirements under Criterion C in the MPD as an early example of the welded I-girder bridge. Built in 1953, the bridge was the first of its type to be built in the state of Iowa. As such, the bridge meets the registration requirement for eligibility under Criterion C.

The bridge was part of a bypass that began on the east side of Lisbon and ended at 6th Street SW near Hawkeye Downs. Before the bypass travelers heading east on Highway 30 had to travel through the heart of the city along First Avenue or Sixteenth Avenue to Mount Vernon Road. The over 15-mile, two-lane

cutoff was projected to cost around \$2.5 million. In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).



Plate 8. View ENE of Eastbound US Highway 30 Bridge

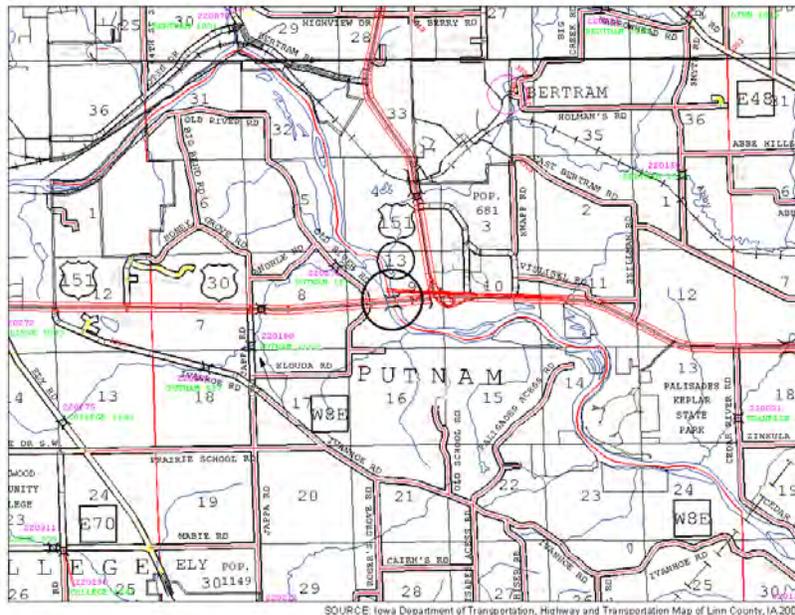


Figure 9. Location of Eastbound US Highway 30 Bridge

9. *Red Rock Lake Bridge, Marion County*

FHWA: 35200

Bridge Type: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

Year Built: 1965

Eligibility: Eligible, Criteria A and C

Carrying Iowa 14 over the Des Moines River / Red Rock Lake reservoir north of Knoxville, this 42-span 5,653' x 36' bridge was constructed in 1965. The six units of the bridge are each comprised of 112'9" end spans and five 142'6" interior spans. Concrete piers support a superstructure of steel continuous welded I-girders with floorbeams. The bridge was designed by the Iowa Highway Commission. The contract for the 42-pier substructure of the over one-mile long bridge was let to Schmidt Construction Company of Winfield, Iowa in October 1963. The contract for the superstructure was let in April 1964 to Schmidt Construction Company. The substructure was completed in September 1964. The bridge was opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600 and was financed by federal funds as part of the \$83 million Red Rock dam and reservoir project.

The Red Rock Lake Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the MPD as it is a continuous welded I-girder bridge with an exceptional length of over 2,000'. With an overall length of 5653', this bridge does meet that requirement. The Red Rock Lake Bridge does meet registration requirements under Criterion A for its association with the major federal undertaking of the construction of the Red Rock Dam and Reservoir. Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The Red Rock dam and reservoir project was one of the largest undertakings of its kind in Iowa and the Red Rock Lake Bridge was the longest and tallest bridge in Iowa at the time of its construction.



Plate 9. View SE of Red Rock Lake Bridge

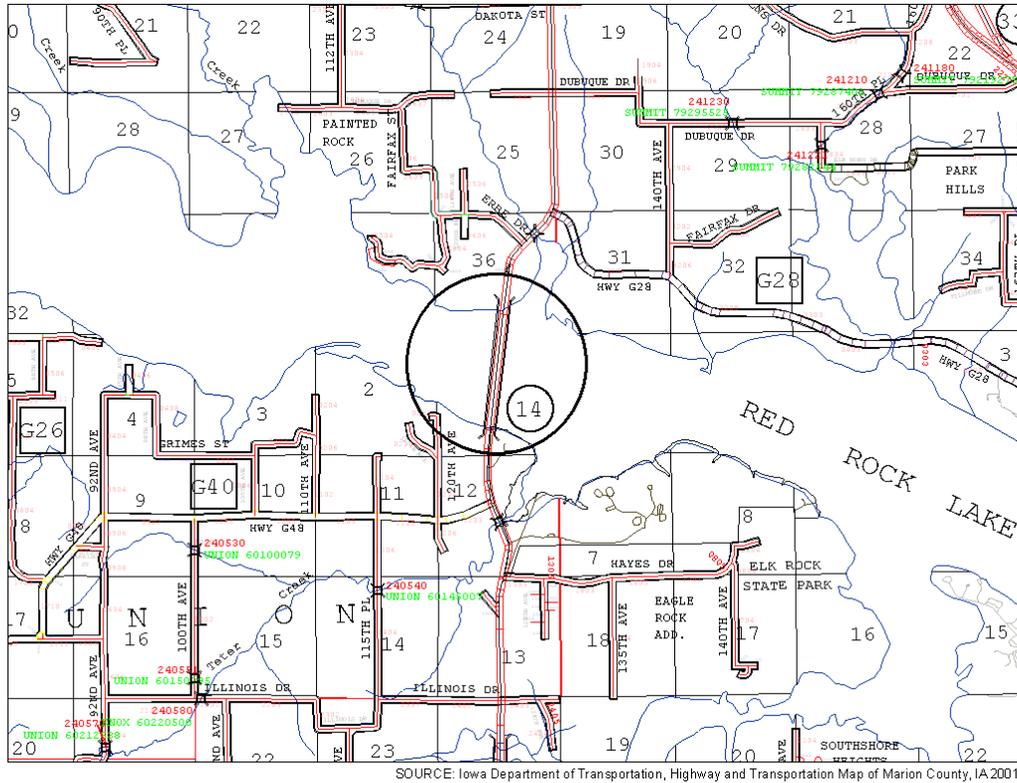


Figure 10. Location of Red Rock Lake Bridge

The Red Rock Dam project was authorized in the Flood Control Acts of June 1938 and December 1944. In June 1944, the Senate Commerce Committee approved \$15 million of the \$1 billion national flood control program for a large dam to the southeast of Des Moines (*Council Bluffs Nonpareil* June 25, 1944:7). Floods in 1947 prompted a second dam on the Des Moines River at Saylorville (*Pella Chronicle* July 19, 1956:1). In 1956, planning for the project began. On June 4, 1960, the groundbreaking ceremony was held. Approximately 86 miles of railroad, 10 miles of state highway, 85 miles of county roads, and numerous bridges in the area would be impacted, either through submersion or relocation (*Pella Chronicle-Advertiser* September 3, 1969:9B). Thus, while the dam was being built, several new bridges and roads were constructed. The 5,653' Iowa 14 Bridge over the Des Moines River / Red Rock Lake (FHWA #35200) was designed by the ISHC and opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600. The concrete road over the spillway and dam (FHWA #240385) was one of the last items constructed in 1967 (*Pella Chronicle-Advertiser* January 30, 1968:1). The IA 316 Bridge (FHWA #280555) between Runnells and Swan was completed in 1968. New bridges also had to be built for relocated routes such as IA 5 southwest of Knoxville. On March 17, 1969, the dam went into operation and the permanent pool level of 725' was reached in three days due to the spring melt (*Pella Chronicle-Advertiser* September 3, 1969:Special Insert, p.7). The Red Rock Dam and Reservoir was dedicated on September 6, 1969. Four days of festivities accompanied the dedication of the dam. When completed, the 6,300-acre dam was the largest man-made lake in Iowa.

10. *Decatur Bridge, Monona County*

FHWA: 36810

Bridge Type: Steel Continuous Truss-thru

Year Built: 1951

Eligibility: Eligible (Criteria A and C)

Carrying IA 175 over the Missouri River into Nebraska, this five-span steel continuous truss bridge is 1956' long by 23' wide with an average span length of 421'. It is a toll bridge with a fee of 75 cents at present. The Burt County Nebraska Bridge Commission was formed around 1949 with the intent of constructing a bridge across the Missouri River between Decatur, Nebraska and Onawa, Iowa (*Onawa Weekly Democrat* 1949:1). Initially funded with \$1.5 million in bonds, William J. Howard Company, Inc of Chicago received the winning bid for the bridges construction in January 1950 (*Onawa Weekly Democrat* 1950a:1). The bridge was designed by Kirkham, Michael & Associates of Omaha, Nebraska.

The ground breaking ceremony was on April 21, 1950 in Decatur, Nebraska. Onawa residents were transported to the festivities by boat across the Missouri River (*Onawa Weekly Democrat* 1950b:1). The bridge was constructed near the Decatur side of the Missouri River basin, several hundred yards west of the river channel. This was purposely done by the bridge engineers to reduce construction costs; it being easier to build the bridge on dry land (*Onawa Weekly Democrat* 1951a:1). However, by the time the bridge was almost halfway complete, financing for the rechannelization of the river had not been secured, being tied to the larger flood-control effort in the Missouri Basin. After being held up in appropriations



Plate 10. View NE of Decatur Bridge

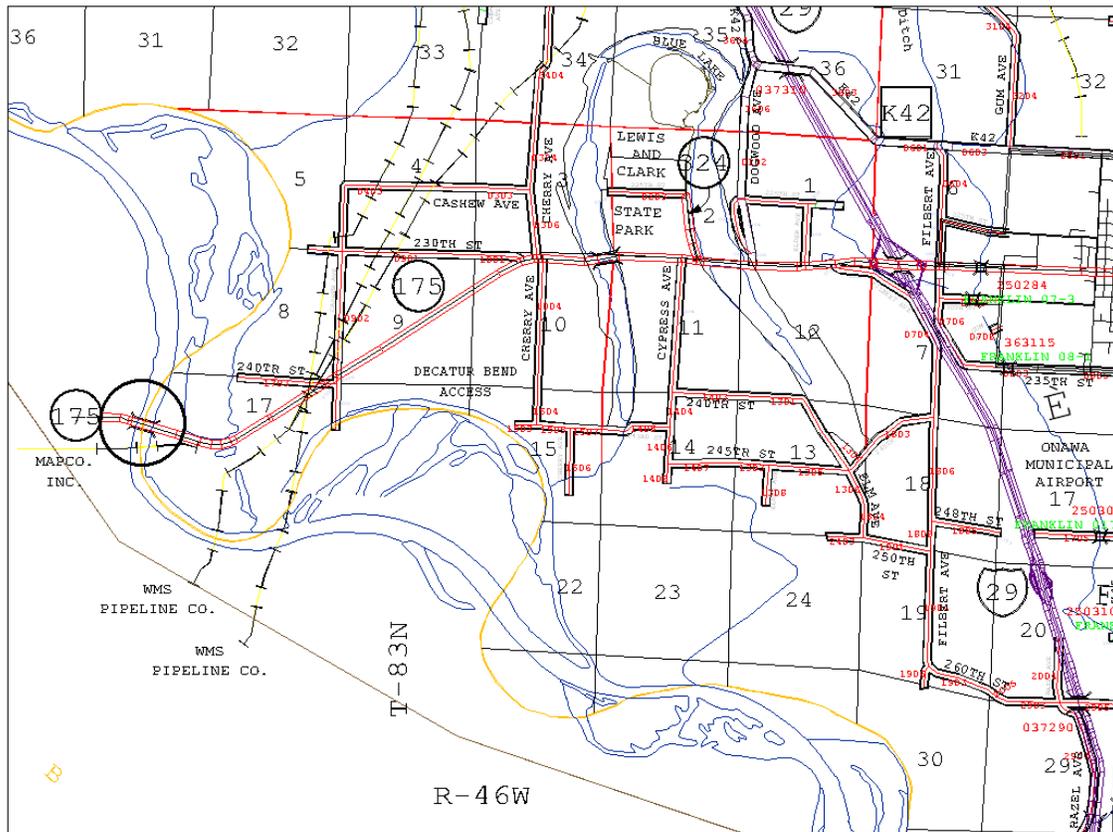


Figure 11. Location of Decatur Bridge

for two years, some dredging work at the site of the bridge began in January 1955 (*Onawa Weekly Democrat* 1955a:1); though a \$600,000 contract for the diversion of the river under the bridge was not let by the Corps of Engineers until April 1955 (*Onawa Weekly Democrat* 1955b:1). Over the next eight months, work progressed on diversion of the river and completion of bridge approaches on both sides of the bridge. On December 12, 1955, both approaches were completed; cutting a one and a half hour trip to Decatur down to twenty minutes (*Onawa Weekly Democrat* 1955c:1). The bridge was officially opened to traffic and charging tolls for crossing in January 1956. The bridge was formally dedicated on May 6, 1956 as part of the Centennial Celebration of Decatur (*Onawa Weekly Democrat* 1956:1).

The Decatur Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the MPD as a steel continuous thru truss bridge of an exceptional span length. The registration requirements include spans of over 400' in length as exceptional. With a main span of 421', this bridge does meet that requirement. The Decatur Bridge also meets registration requirements under Criterion A as a large bridge establishing a first highway crossing of a major waterway and as a major state bridge building initiative.

11. *US Highway 6 Bridge, Pottawattamie County*

FHWA: 43270

Bridge Type: Steel Continuous Stringer/Beam/Girder

Year Built: 1961

Eligibility: Eligible, Criterion C

This three-span 245' x 30' steel continuous girder bridge carries US Highway 6 over Silver Creek at 350th Street west of Oakland. The bridge has reinforced concrete piers and a concrete, cast-in-place floor. This bridge replaced a 70' x 20' pony truss bridge.

According to the ISHC, the bridge was the first prestressed steel bridge in the United States. In July 1960, ISHC structural engineer Bill Barnard posited the idea of prestressing steel for bridges based on the successful experimentation of prestressing concrete for the same purpose. The process involved adding weight to a beam to cause it to bend (or deflect). Then T1 heat-treated cover plates are welded to the deflected beams. Once the plates are welded, the weight on the beam is removed and the deflected beam is inverted for use in a bridge. This process strengthens the beam, allowing it to be used in place of larger beams. The process was thought to save up to 25% in steel weight (ISHC 1961:7-9).



Plate 11. View NE of US Highway 6 Bridge

The US 6 Highway Bridge meets several registration requirements outlined in the MPD and as such is eligible for inclusion in the NRHP under Criterion C. The bridge is an early, well-preserved example of a prestressed welded steel girder bridge, the first of its kind in the U.S. according to the ISHC. The bridge is also an exceptional example of work by ISHC structural engineer Bill Barnard, who created and tested the concept of prestressing steel for bridges. The bridge has a high degree of integrity with no major repairs noted in the SI&A database or eRMS.

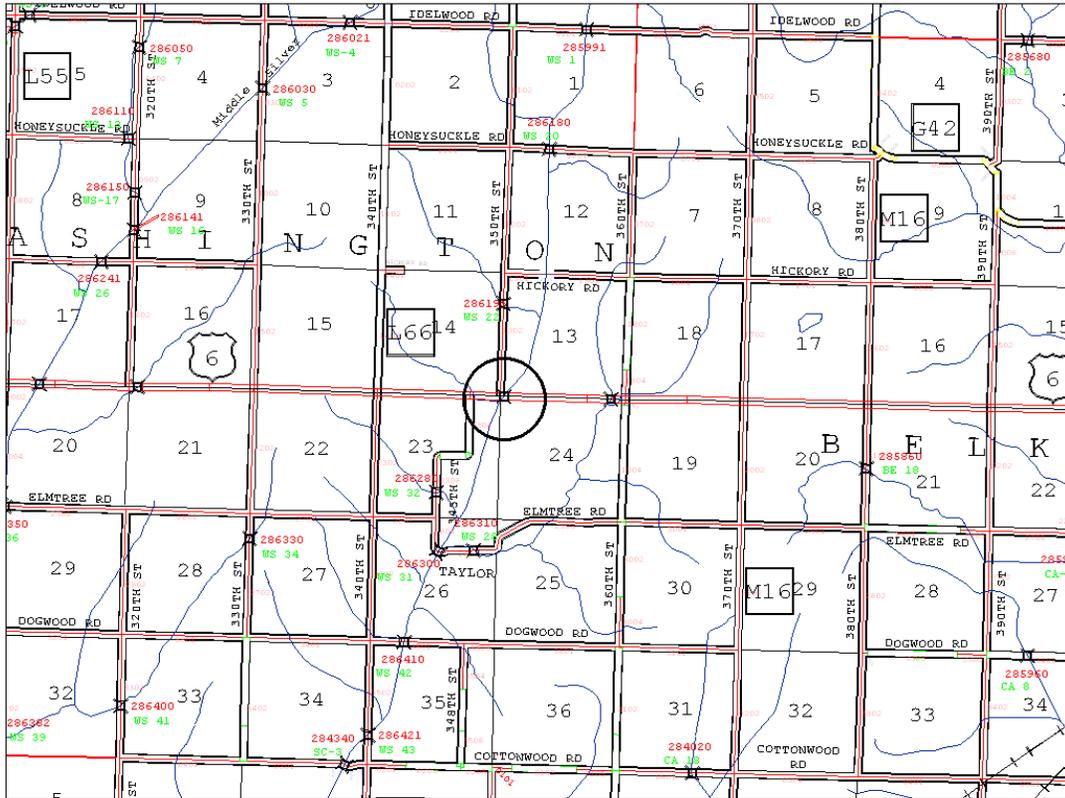


Figure 12. Location of US Highway 6 Bridge

12. US 63 Highway Bridge, Wapello County

FHWA: 50640
Bridge Type: Prestressed Conc Stringer/Beam/Girder
Year Built: 1964
Eligibility: Eligible (Criterion C, Criteria Consideration G)

This 28-span 2,319' x 56' bridge carries US Highway 63 over the Des Moines River and the Burlington Northern Santa Fe Railway in Ottumwa. Concrete piers support prestressed concrete girders. The project involved the relocation of U.S. Highway 34. In order to relocate the highway, the horseshoe bend of the Des Moines River was bypassed by a straightened channel over which the new bridge spanned. The bridge was designed by ISHC Chief Engineer L. M. Clauson. His design received an award for the most outstanding bridge design in Iowa using pre-stressed concrete (ISHC 1965:33). The 100' long beams in the center spans were the longest pretensioned, pre-stressed concrete beams used in Iowa. The bridge was

used by the ISHC to test the camber of pretensioned, pre-stressed concrete beams in the field. Also, for the first time in Iowa, drilled caissons were used in pier construction instead of pile foundations to limit vibration effects to surrounding buildings (ISHC 1965:34). The contract for construction of piers 2-12 was awarded on October 3, 1961 to Jensen Brothers Construction Company of Des Moines for \$186,730. The remainder of the bridge construction was let to the same company on April 3, 1963 for \$1,389,295 (ISHC 1965:34).



Plate 12. View North of US Highway 63 Bridge

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S. Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe

Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

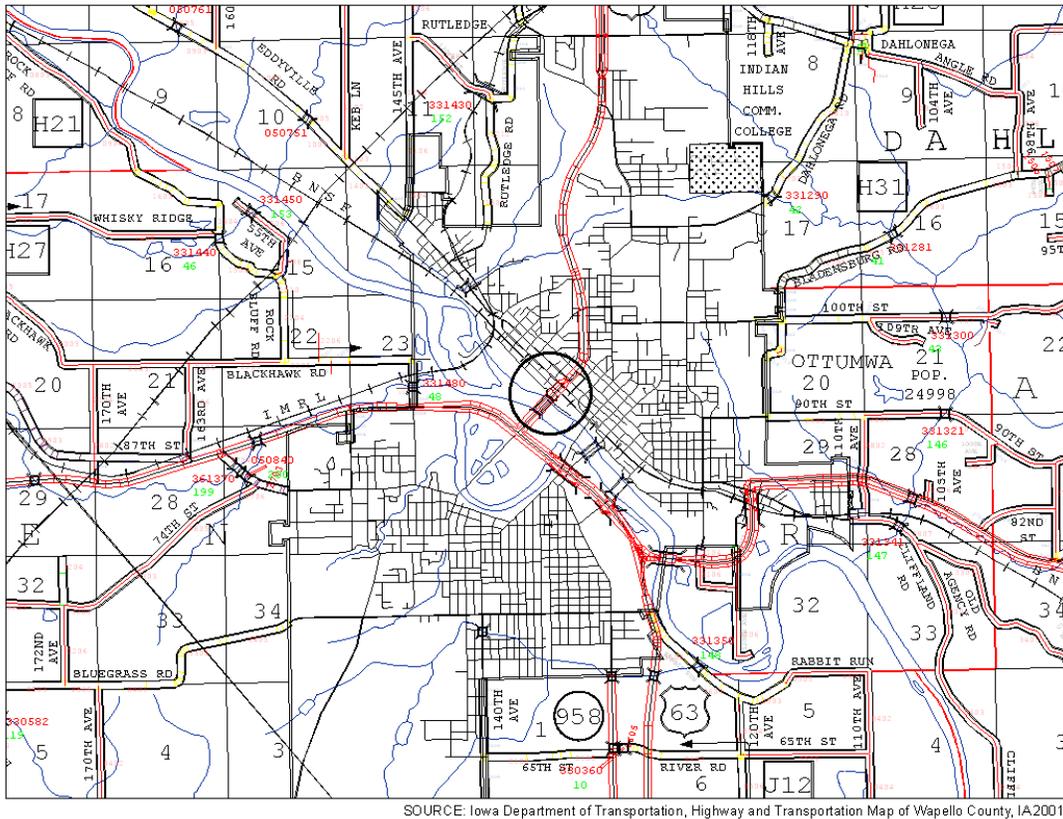


Figure 13. Location of US Highway 63 Bridge

The bridge was included in the Phase II survey as it is a large bridge of exceptional span or overall length, which according to the registration requirements in the MPD is a prestressed girder span (Type 502) with a span greater than 100' or multiple span bridges with an overall length in excess of 400' in length. The bridge is 2319' long with a main span of 102', which meets both the aforementioned registration requirements for prestressed concrete bridges. As such, the US 63 Bridge is eligible for inclusion in the NRHP under Criteria A and C as it does meet the registration requirements outlined in the MPD . Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The bridge used the longest pretensioned, pre-stressed concrete beams used in Iowa.

13. *US Highway 52 Bridge, Winneshiek County*

FHWA: 52540

Bridge Type: Conc Arch Deck (w/no fill over top)

Year Built: 1963

Eligibility: Eligible (Criterion C, Criteria Consideration G)



Plate 13. View SW of US Highway 52 Bridge

This 83' x 30' open spandrel arch bridge carries US Highway 52 over Dry Run Creek in Decorah. Constructed in 1963, the bridge features reinforced concrete arches set directly into the limestone walls of the creek and cast-in-place decking. The original aluminum handrails, concrete abutments, and stone columns remain intact. An additional concrete railing has been added in the interior of the aluminum railing. In 1981, the concrete deck of the bridge was repaired. The bridge was designed by ISHC Engineer Paul F. Barnard in February 1962 (ISHC 1964:14).

Relocation of US Highway 52 in Decorah was announced in November 1961 in the ISHC five-year construction plan. As early as January 1962, ISHC announced plans for the relocated highway that included the open spandrel concrete arch bridge. At the time, the ISHC declared it was the only one of its kind in the state. The bridge was unique as it was to be set halfway down the 110' rock cut at a 45 degree skew angle (*Waterloo Sunday Courier*, March 4, 1962:9). The bridge was featured on the cover of the 1964 official state highway map. In September 1962, businessmen from numerous towns in northeast Iowa formed the Highway 52 Club to advocate improvements along the highway (*Decorah Public Opinion* Sept. 24, 1962:1). Contracts for the relocation were let on November 7, 1962. Weldon Brothers of Iowa Falls was given the contract for the concrete arch bridge. Work on preparing the limestone cut for the bridge progressed through early 1963. On June 16, 1964, the relocated highway was opened to traffic (*Waterloo Daily Courier*, June 16, 1964:12).

The US 52 bridge was included in the Phase II survey as it is an exceptional example of a concrete, open spandrel arch bridge designed by ISHC Engineer Paul F. Barnard and as an architecturally designed bridge of recognized aesthetic importance. The bridge is also a unique design for its type, being set halfway down the rock cut and at a 45 degree angle. As such, the US 52 Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet the registration requirements outlined in the MPD. Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The bridge is the most picturesque and unique open spandrel bridges in Iowa.

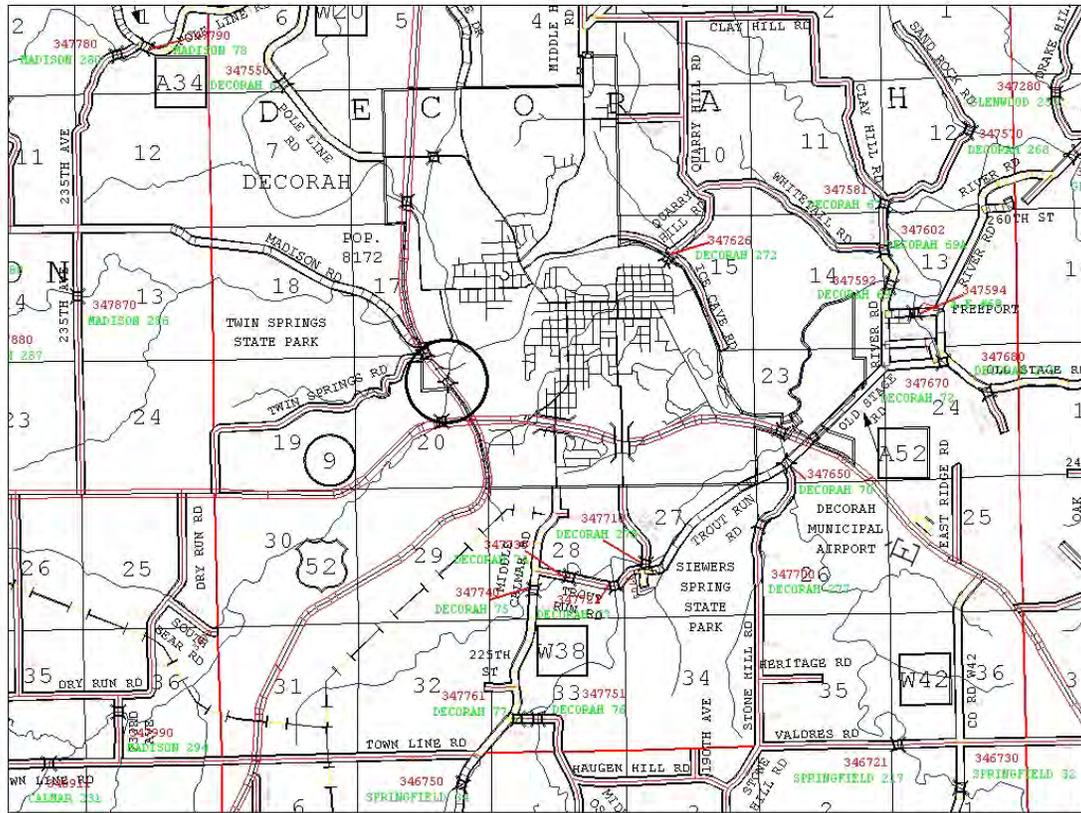


Figure 14. Location of US Highway 52 Bridge

14. Northbound IA 376 Bridge, Woodbury County

FHWA: 53070
Bridge Type: Steel Stringer/Beam/Girder
Year Built: 1956
Eligibility: Eligible (Criterion C)

This seven-span 514' x 28' bridge carries Northbound Iowa 376 over the Chicago Central and Pacific (CC) Railroad and Taft Street in Sioux City. The bridge is comprised of a center 61' simple steel span flanked by 222' three-span continuous I-beam structures. The three span continuous sections consist of 67' 6" end spans and an 87' center span. The bridge replaced an existing 546'x24' steel I-beam bridge located just east of the present structure. The bridge was designed by the ISHC in August 1955 and constructed in 1956. Engineer Consultant, Herbert A. Arthur is also noted on the blueprints for the bridge. Repairs were made to the bridge floor, piers, and expansion joints in 1984. In 1991, strengthening angles were added to the exterior beams and the existing aluminum rail was replaced with concrete. Very little information could be found on the construction of the bridge in local newspapers. Herbert A. Arthur was an architect/engineer with a practice in Ames, Iowa. An American Architects Directory from 1956 lists numerous buildings completed by him including ISHC Laboratory Buildings in Ames, 1954; and ISHC District Office Building in Mason City, Iowa, 1955 (Bowker 1956:15).

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970 as a steel stringer, multi-beam or girder bridge (Type 302) with an overall length of over 400'. As the overall length of the bridge (514') meets the aforementioned registration requirement, the bridge is eligible for inclusion in the NRHP under Criterion C. The bridge does not meet any of the other registration requirements for a Type 302 bridge.



Plate 14. View North of Northbound IA 376 Bridge

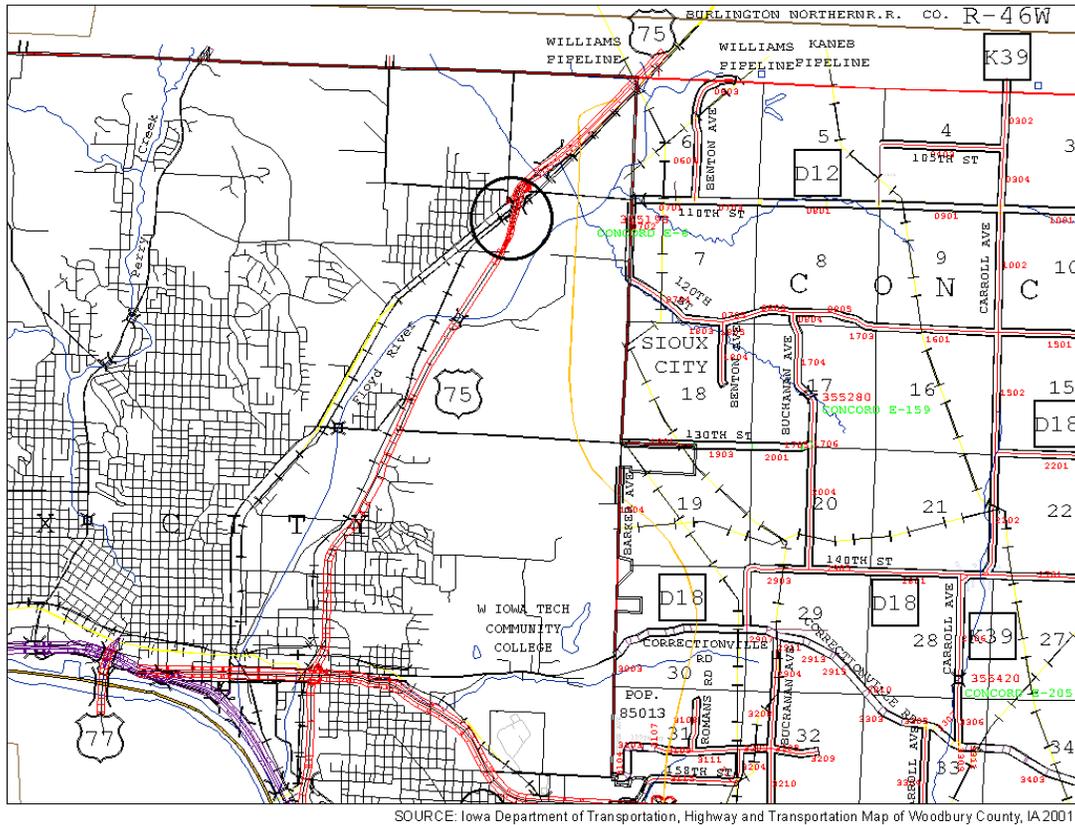


Figure 15. Location of Northbound IA 376 Bridge

15. 80th Street Bridge, Fayette County

FHWA: 150370

Bridge Type: Conc Girder & Floorbeam

Year Built: 1953

Eligibility: Eligible (Criterion C)

This single-span 57' x 20' concrete bridge carries 80th Street across the Little Volga River southeast of Maynard. It was constructed in 1953 by C.B. and M.R. Taylor Construction Company of Decorah, IA at a cost of \$13,266 and features concrete deck girders and cast-in-place concrete decking .

The 80th Street Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the MPD as it is a large girder and floorbeam bridge of an exceptional span length. The registration requirements include girder spans of over 50' in length as exceptional. With a main span of 55', this bridge does meet that requirement. The 80th Street Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

The Concrete Girder & Floorbeam bridge (Type 103) commonly consists of two parallel rectangular girders spanning between supports (abutments and piers), spaced apart a distance approximately equal to the width of the roadway. Sidewalk slabs are usually cantilevered beyond the girders. More than two

girders are used in some cases. The girders support transverse cross beams (floorbeams) which are spaced to properly support the deck slab. The formwork and steel reinforcing for the girders, floorbeams and slab is commonly built all together so that the concrete can be continuously poured making all three structural members integral.



Plate 15. View NE of 80th Street Bridge

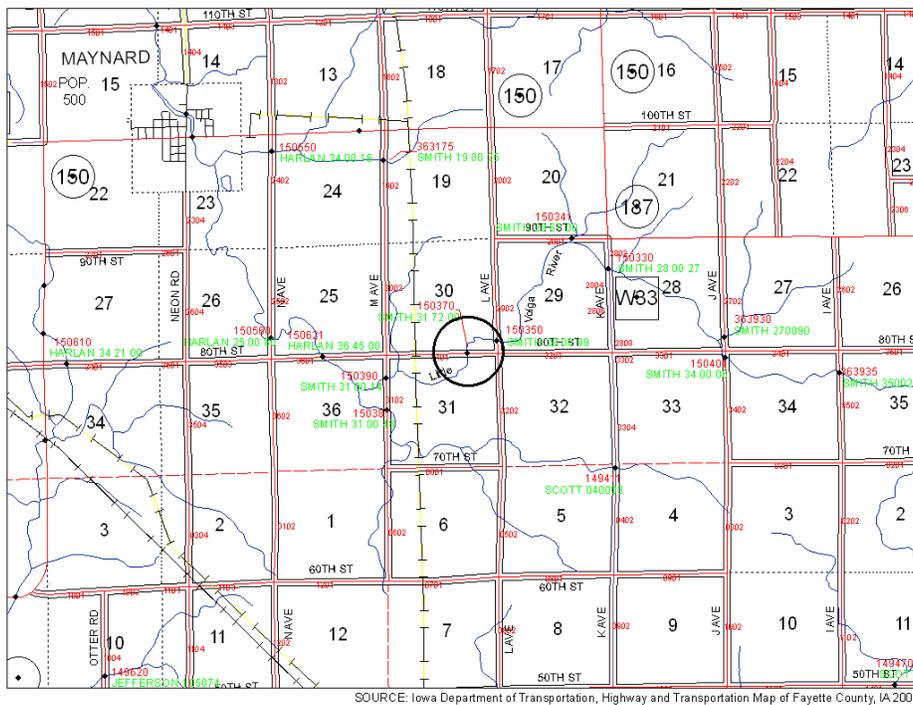


Figure 16. Location of 80th Street Bridge

16. *Jade Avenue Bridge, Howard County*

FHWA: 182470

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1950

Eligibility: Eligible (Criterion C)

This single-span 57' x 20' bridge carries Jade Avenue over Crane Creek northeast of Elma. Concrete abutments support concrete girders and cast-in-place decking. The files for this bridge at the Howard County Engineer's Office contain ISHC plans dating to 1952 and titled "Standard Design: Concrete Girder Bridge 20 Roadway, Steel Rail".

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The Jade Avenue Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined above. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 16. View SW of Jade Avenue Bridge

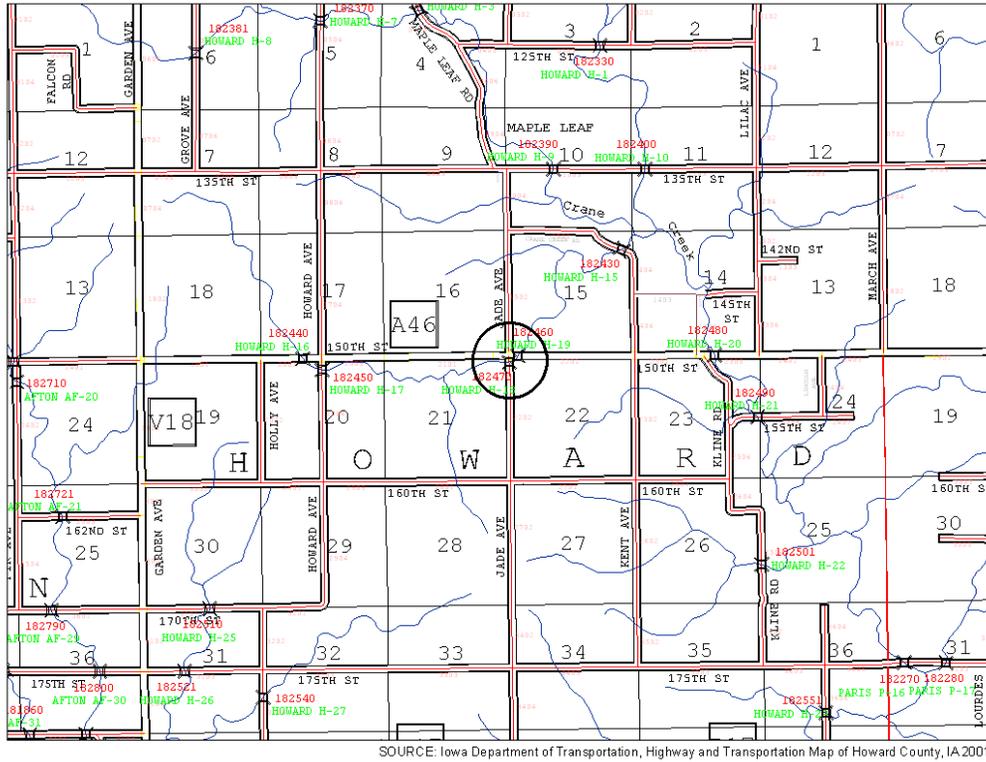


Figure 17. Location of Jade Avenue Bridge

17. 94th Place Bridge, Marion County

FHWA: 240110
Bridge Type: Conc Stringer, Multi-beam or Girder
Year Built: 1958
Eligibility: Eligible (Criterion C)

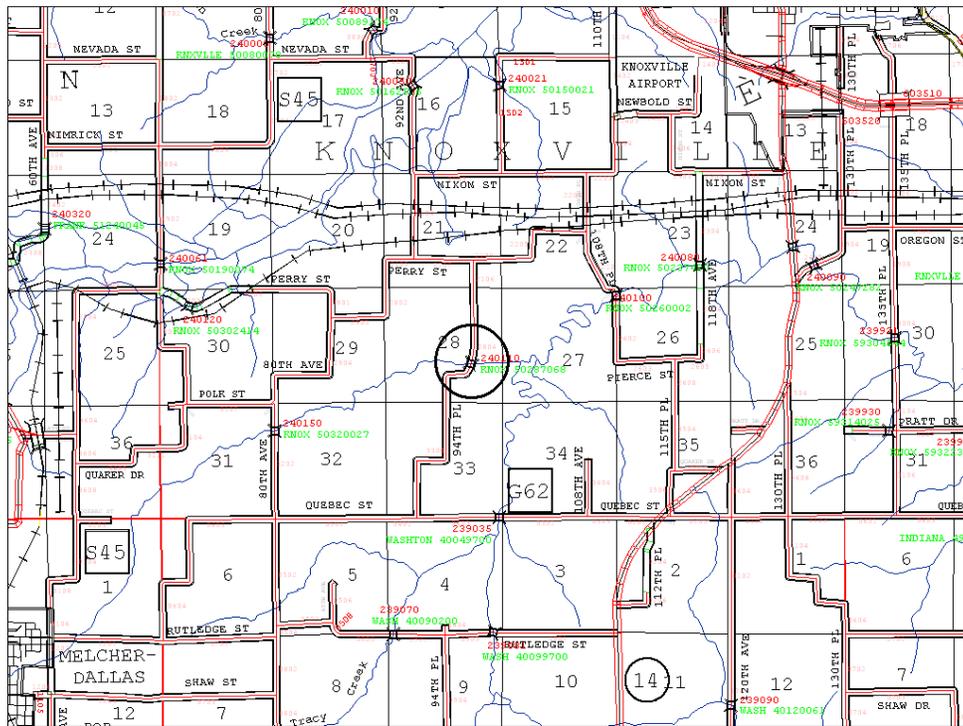
This single-span 58' x 20' bridge carries a local road, 94th Place, over Tracey Creek between Knoxville and Melcher-Dallas. Timber pile and plank abutments support concrete girders.

The 94th Place Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 17. View NE of 94th Place Bridge



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Marion County, IA 2001

Figure 18. Location of 94th Place Bridge

18. *Red Rock Dam Bridge, Marion County*

FHWA: 240385

Bridge Type: Prestressed Conc Stringer/Beam/Girder

Year Built: 1967

Eligibility: Eligible (Criteria A and C, Criteria Consideration G)

This five-span 563' by 28' bridge carries Hwy. T15 over the top of Red Rock Dam southwest of Pella. The bridge uses prestressed concrete girders and cast-in-place decking. Though seemingly a part of the dam structure, the concrete road over the spillway and dam was one of the last items constructed. In February 1966, the contract for the final earth embankment was let to William A. Smith Company of Kansas City, Kansas (*Pella Chronicle* February 1, 1966:1). By January 1968, work had begun on the roadway on top of the earth embankments; though the road over the spillway itself had already been completed (*Pella Chronicle-Advertiser* January 30, 1968:1).

The bridge was included in the Phase II survey as it is a large bridge of exceptional span or overall length, which according to the registration requirements in the MPD is a prestressed girder span (Type 502) with a span greater than 100' or multiple span bridges with an overall length in excess of 400 feet. The bridge is 563' long with a main span of 113', which meets both the aforementioned registration requirements for prestressed concrete bridges. The bridge is also associated with the construction of the Red Rock Dam and Reservoir as it was built to span the spillway of the dam itself. As such, the Red Rock Dam Bridge is eligible for inclusion in the NRHP under Criteria A and C as it does meet the registration requirements outlined in the MPD .

Although, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The Red Rock dam and reservoir project was one of the largest undertakings of its kind in Iowa and the Red Rock Lake Bridge was the longest and tallest bridge in Iowa at the time of its construction.

The Red Rock Dam project was authorized in the Flood Control Acts of June 1938 and December 1944. In June 1944, the Senate Commerce Committee approved \$15 million of the \$1 billion national flood control program for a large dam to the southeast of Des Moines (*Council Bluffs Nonpareil* June 25, 1944:7). Floods in 1947 prompted a second dam on the Des Moines River at Saylorville (*Pella Chronicle* July 19, 1956:1). In 1956, planning for the project began. On June 4, 1960, the groundbreaking ceremony was held (*Pella Chronicle* June 9, 1960:1). Approximately 86 miles of railroad, 10 miles of state highway, 85 miles of county roads, and numerous bridges in the area would be impacted, either through submersion or relocation (*Pella Chronicle-Advertiser* September 3, 1969:9B). Thus, while the dam was being built, several new bridges and roads were constructed. The 5,653' Iowa 14 Bridge over the Des Moines River / Red Rock Lake (FHWA #35200) was designed by the Iowa Highway Commission and opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600. The concrete road over the spillway and dam (FHWA #240385) was one of the last items constructed in 1967 (*Pella Chronicle-Advertiser* January 30, 1968:1). The IA 316 Bridge (FHWA #280555) between Runnells and Swan was completed in 1968. New bridges also had to be built for relocated routes such as IA 5 southwest of Knoxville. On March 17, 1969, the dam went into operation and the permanent pool level of 725' was reached in three days due to the spring melt (*Pella Chronicle-Advertiser* September 3, 1969:Special Insert, p.7). The Red Rock Dam and Reservoir was dedicated on September 6, 1969. Four days of festivities accompanied the dedication of the dam. When completed, the 6,300-acre dam was the largest man-made lake in Iowa.



Plate 18. View NW of Red Rock Dam Bridge

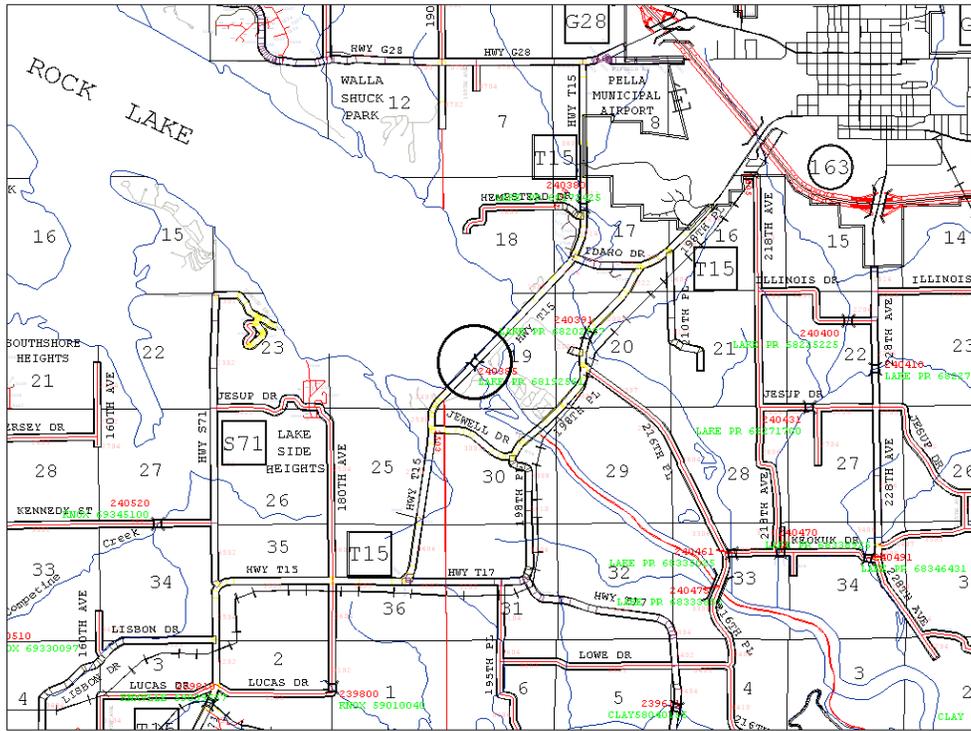


Figure 19. Location of Red Rock Dam Bridge

19. *Trolley Road Bridge, Muscatine County*

FHWA: 257450

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1956

Eligibility: Eligible (Criterion C)

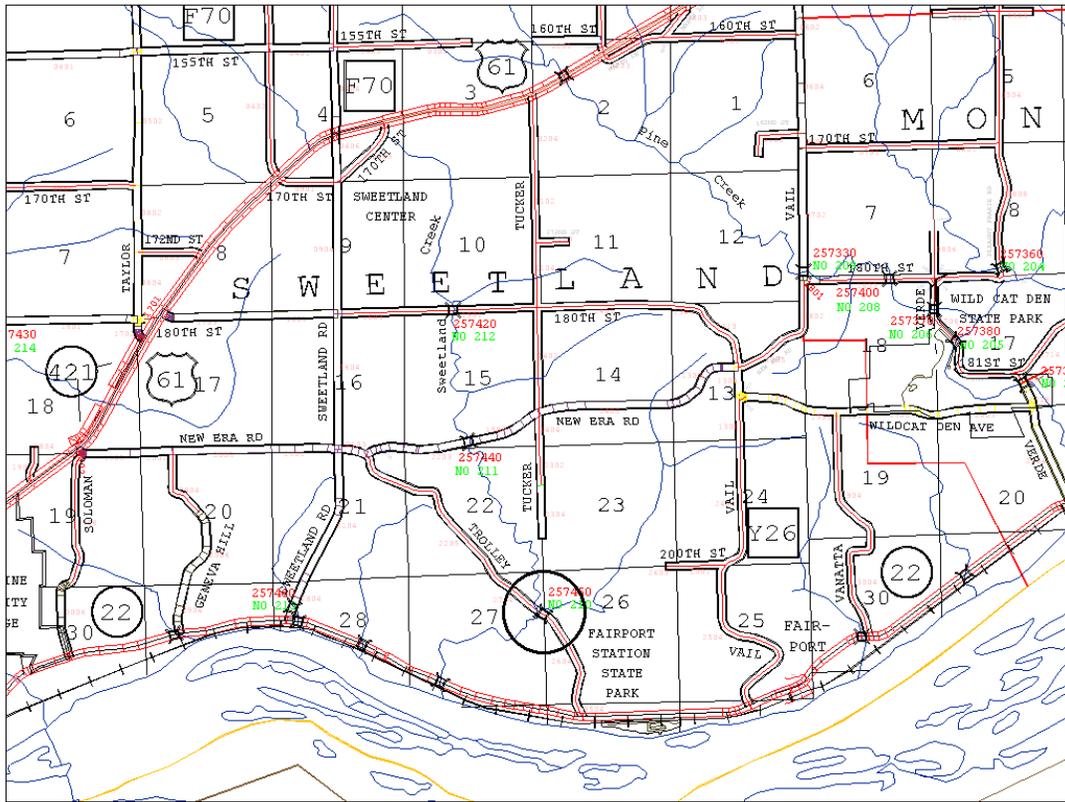
This single-span 68' x 20' concrete girder bridge carries local Trolley Road over a creek near Fairport Station State Park. It was constructed in 1956. The concrete girder superstructure is based on Standard Plan H1-3, the steel I-beam is of V9-5 type, and the reinforced concrete abutment is A-20.

The Trolley Road Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 19. View North of Trolley Road Bridge



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Muscatine County, IA 2001

Figure 20. Location of Trolley Road Bridge

20. *York Avenue Bridge, Muscatine County*

FHWA: 257830

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1958

Eligibility: Eligible (Criterion C)

This single-span 55' x 20' concrete girder bridge carries York Avenue over Mud Creek in Walcott. It was constructed in 1958 according to plans drawn by County Engineer J.R. Dougherty. The substructure is based on ISHC Standard Plan H1-4 while the superstructure is based in ISHC Standard Plan H1-2. The pilings are creosoted timber trestle piles.

The York Avenue Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as

beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 20. View NE of York Avenue Bridge

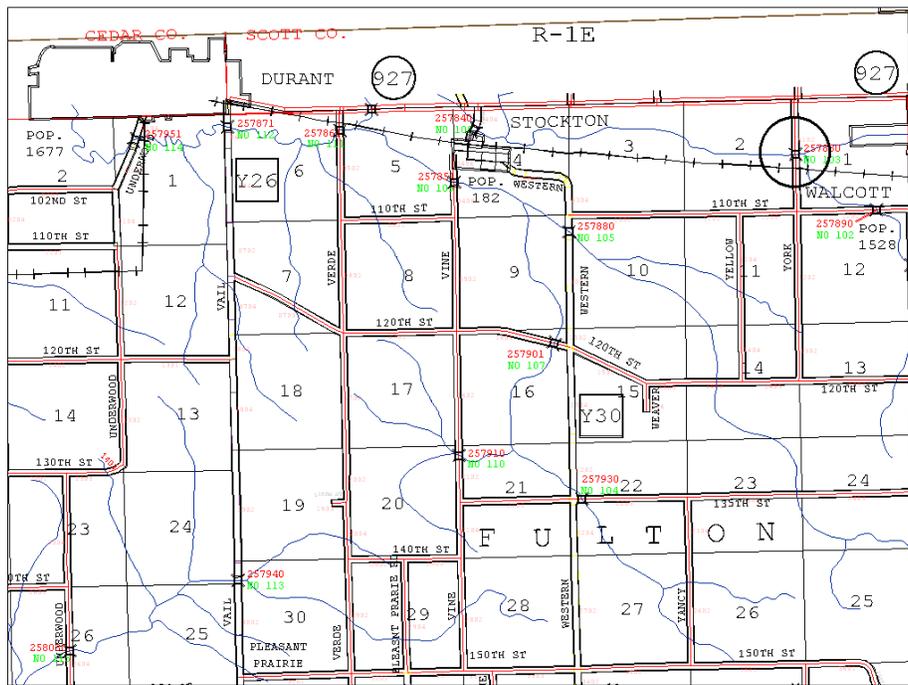


Figure 21. Location of York Avenue Bridge

21. *N. Isett Rd. Bridge, Muscatine County*

FHWA: 258160

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1956

Eligibility: Eligible (Criterion C)

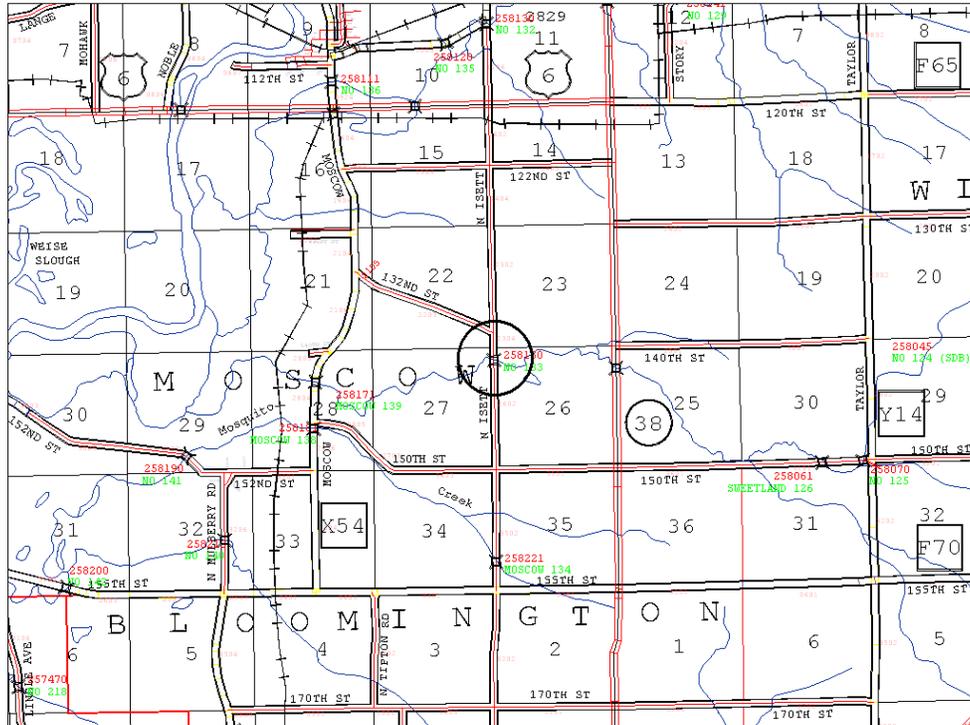
This single-span 68' x 20' bridge carries local road N. Isett over Mosquito Creek southwest of Wilton. Timber pile and plank abutments/wingwalls support concrete girders. Plans on file at the Muscatine County Engineer's Office indicate that this bridge was constructed as part of the Farm to Market Roads program.

The N. Isett Road Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is over the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 21. View SE of N. Isett Road Bridge



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Muscatine County, IA 2001

Figure 22. Location of N. Isett Road Bridge

22. 1100th Street Bridge, Shelby County

FHWA: 305530
Bridge Type: Prestressed Conc Channel beam
Year Built: 1954
Eligibility: Eligible (Criterion C)

This single-span 52' x 20' concrete girder bridge carries local 1100th Street over Keg Creek between Harlan and Portsmouth. Prestressed concrete channel beams support cast-in-place decking. Through the 1950s, Shelby County endeavored to improve its road system by using crushed stone and hard surfacing. As these projects were conducted bridges and culverts were built. By March 1953, the county only had 390 miles of improved surface road of a total 981 miles (*Harlan Tribune* 1953:1).

The 1100th Street Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements in the MPD. Registration requirements under Criterion C state that channel beams in excess of 50' in length are of exceptional span and should be eligible for listing in the NRHP. As the 1100th Street Bridge is 51' in length, it meets the registration requirement and is therefore eligible for listing in the NRHP under Criterion C.

The concrete Channel Beam bridge (Type 122), can be thought of as a box girder without a bottom flange. Conventionally reinforced concrete channel beams (as opposed to prestressed channel beams (Type 522)) are pre-cast units in standard lengths commonly between 20' and 70' although the vast majority in Iowa are in the 24' to 45' range. Like the box beam, the units are placed side-by-side with the top flanges abutting to form the roadway slab. Concrete channel beam bridges in Iowa were more widely

23. *167th Street Bridge, Union County*

FHWA: 325310

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1952

Eligibility: Eligible (Criterion C)

This single-span 57' x 20' concrete girder bridge carries 167th Street over Four Mile Creek north of Thayer. Constructed in 1952, the bridge was built according to the ISHC's Design #1052. It replaced an earlier bridge and utilized 89.7 cubic yards of concrete, 16,340 pounds of reinforced steel, 6,036 pounds of structural steel, 158 pounds of hardware, and 920 linear feet of creosoted piling.

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The 167th Street Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined above. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 23. View SE of 167th Street Bridge

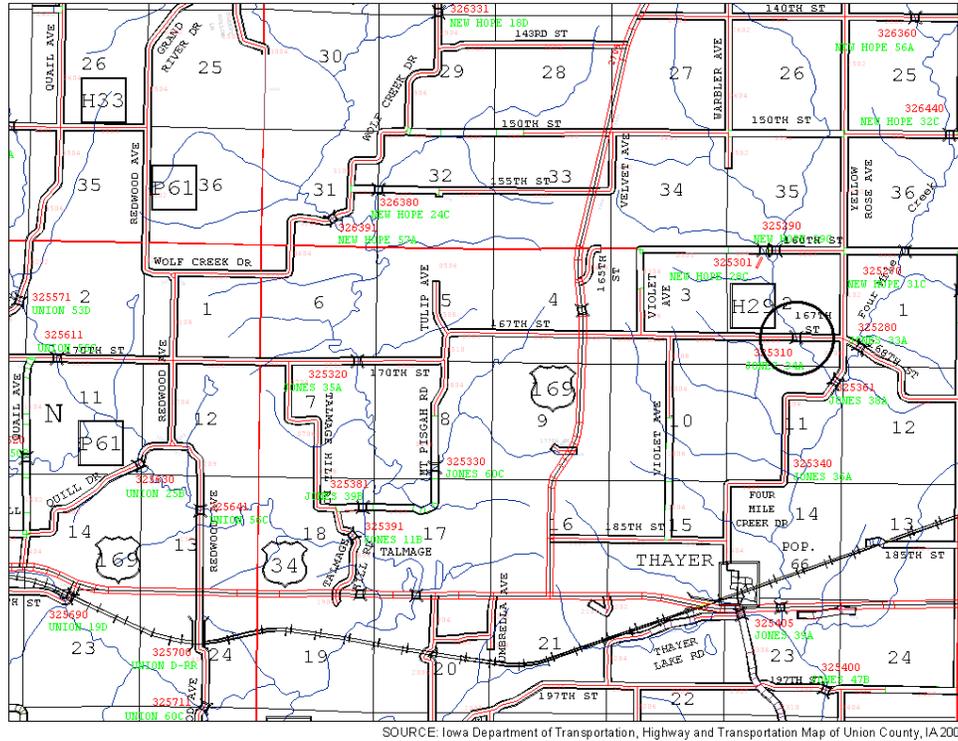


Figure 24. Location of 167th Street Bridge

24. 297th Street Bridge, Washington County

FHWA: 335570
Bridge Type: Conc Stringer, Multi-beam or Girder
Year Built: 1955
Eligibility: Eligible (Criterion C)

This single-span 69' x 20' concrete girder bridge carries 297th Street over Buff Creek two miles northeast of Crawfordsville. Timber pile and plank abutments/wingwalls support concrete girders.

The 297th Street Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 24. View SW of 297th Street Bridge

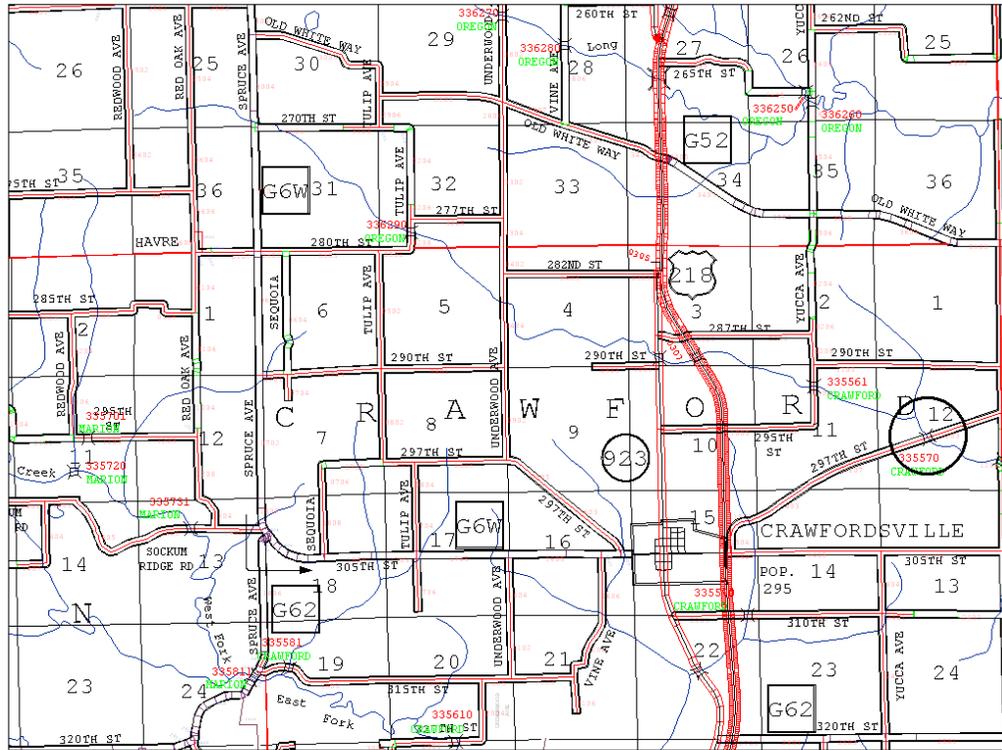


Figure 25. Location of 297th Street Bridge

25. *Underwood Avenue Bridge, Washington County*

FHWA: 336201

Bridge Type: Conc Stringer, Multi-beam or Girder

Year Built: 1953

Eligibility: Eligible (Criterion C)

This single-span 68' x 20.2' concrete girder bridge carries Underwood Avenue over the North Fork of Long Creek. Timber pile and plank abutments / wingwalls support concrete girders.

The Underwood Avenue Bridge is eligible for inclusion in the NRHP as it meets one of the registration requirements outlined in the MPD simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge (Type 102), consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.



Plate 25. View SW of Underwood Avenue Bridge

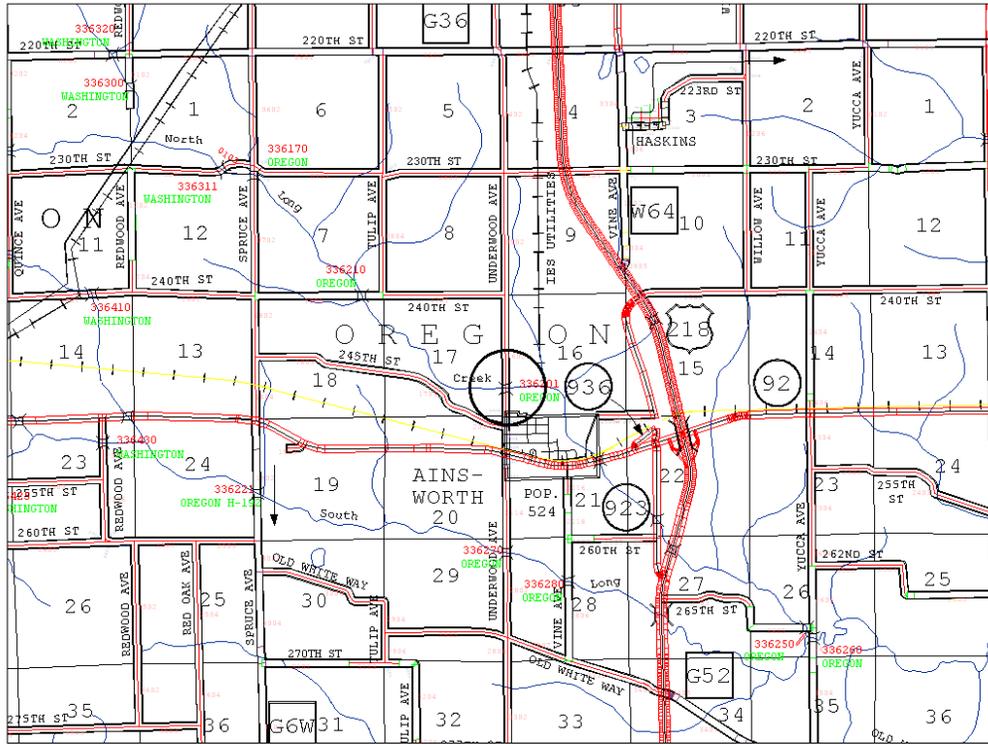


Figure 26. Location of Underwood Avenue Bridge

V. SUMMARY AND RECOMMENDATIONS

As noted in Table 5, LBG identified 25 bridges that met the registration requirements for the MPD, *Highway Bridges in Iowa: 1942-1970*. Three bridges are eligible for listing under Criterion A as they were part of a highway relocations or bypasses that appear to have been the direct cause of significant development or major changes in land use. The remaining bridges met registration requirements under Criterion C. Three bridges are less than 50 years of age; but possess characteristics of exceptional importance and thus meet Criteria Consideration G.

Eight bridges listed in Table 4 as “Not Eligible <50 years of age” met one or more registration requirements; however, did not meet Criteria Consideration G. Bridges FHWA#23620, 23650, and 602945 met registration requirements for Criterion A as they were part of the US Highway 34 relocation through Burlington that appears to have been the direct cause of significant development in West Burlington. The remaining bridges met registration requirements under Criterion C; but did not meet Criteria Consideration G. All of these bridges should be re-evaluated with respect to NRHP Criteria once they reach 50 years of age.

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Ottumwa Courier

- 1965 Ready to Place Spans. July 14:1.
- 1966 New Addition To Ottumwa Freeway System. Sept. 3:4.
- 1967 Highway 34 Dedication Tuesday Morning at 10. Nov. 11:1.
- 1967 ‘Great Day’ Attracts 200 Happy Motorists. Dec. 12:1.

Pella Chronicle

- 1956 Howell Dam and Reservoir Proposal Talked Over at Knoxville Monday Night. July 19:1.
- 1966 Final Stage Contract Let. February 1:1.

Pella Chronicle-Advertiser

- 1968 Red Rock Highway Paving Bids Feb. 6. January 30:1.
- 1969 Red Rock Dedication Days. September 3:7.
- 1969 Red Rock Dedication Days. September 3:9B.

Sioux City Journal

- 1952 Let Contract On Highway 20. May 22:1.
- 1958 Let Contract For Paving Portion of Interstate 29. December 18, 1958:1.
- 1961 May Finish 4-Laning of Merville Link. May 6:1.

Tipton Advertiser

- 1948 Section of Rochester Bridge Collapses After Truck Has Barely Reached Adjoining Span on Monday. May 6:1.

Waterloo Daily Courier

- 1964 Hwy. 20 Segment Opened. November 13:9.
- 1967 Support Given Plans For East-West Freeway 520. June 9:2.
- 1973 \$11 Million Freeway Segment To Be Opened. June 26:8.
- 1974 Set Independence Hearing on 520. November 14:11.

Waterloo Sunday Courier

- 1962 Unique Bridge to Span Flood Cut at Decorah. March 4:9.
- 1964 Highway 52 Bypass Open To Traffic. June 16:12.

**APPENDIX A:
HADB**

Historical Architectural Data Base

Data Entry Form for Studies and Reports

Doc. No.: 00-251

Source of Study: Certified Local Government Project Section 106 Review & Compliance Project
 Historical Resource Development Program Project Other

Project Reference #: _____

Authors/Editor/Compiler/Originator:

Camilla R. Deiber,

Author Role: Consultant Private Researcher/Writer Teacher Student
 Project employee/volunteer Site Administrator Other: _____

Title of Work:

**Intensive Architectural Survey Of Iowa Primary And Secondary Road Bridges Built Between
1942 And 1970**

Year Issued: 2011

Type of Work Performed:

(check one only)

Survey:

- Windshield survey minimum level documentation
- Reconnaissance survey to make recommendations for intensive survey(s).
- Intensive survey
- Mixed intensive and reconnaissance survey

Plan:

- Planning for Preservation/Survey
- Community Preservation Plan

Property Study:

- Iowa Historic Property Documentation Study
- Historic American Building Survey (HABS)
- Historic American Engineering Record (HAER)
- Management or Master Plan
- Historic Structure Report
- Feasibility/Re-use Study
- Architectural/Engineering Plans and Specs.

National Register:

- Multiple Property Documentation Form

Other (e.g., private research, school project, video): _____

Intensive Architectural Survey Of Iowa Primary And Secondary Road Bridges Built Between 1942 And 1970 00-251

Kind of Work Produced:

(fill in one section only: Report or Monograph or Chapter, etc.)

Report: Published/produced by: The Louis Berger Group, Inc.

Place issued: Marion, Iowa

Client: Iowa Department of Transportation

If applicable, include:

Series Title: _____

Volume #: _____ Report #: _____

Monograph: Publisher Name: _____

Place: _____

Chapter: In: _____ First pg. #: _____ Last pg. #: _____

Journal: Name: _____ Vol. _____ No. _____ Pages: _____ to _____

Thesis: Degree (check one): Ph.D. LL.D. M.A. M.S. B.A. B.S.

Name of College/University: _____

Paper: Meeting: _____

Place: _____

Other: _____

Geographic Scope of Study:

City/town Township(s) County Region of Iowa Statewide Other: _____

State: IA _____

County: _____

Town: _____

Township: _____

Range: _____

Time Focus: (check any decades that receive particular attention)

before 1830 1830s 1840s 1850s 1860s 1870s 1880s 1890s

1900s 1910s 1920s 1930s 1940s 1950s 1960s 1970s 1980/later

Keyword: (Index of any subjects, topics, or people given prominent attention in the report)

bridge _____

APPENDIX B:
MPD REGISTRATION REQUIREMENTS

IOWA CONCRETE BRIDGE SELECTION CRITERIA

REGISTRATION REQUIREMENTS

The period of significance for concrete bridges includes the entire study period from 1942 to 1970. Bridges less than 50 years of age that meet Registration Requirements must also possess characteristics of exceptional importance to be considered NR eligible. Bridges that meet Registration Requirements must also retain integrity of location, design, setting, materials, workmanship, feeling and association.

Specific considerations for eligibility under Criterion A:

1. A large bridge establishing the first highway crossing of a major waterway at a given location.
2. A bridge which established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use.
3. A bridge that was built as part of a major state highway project or bridge building initiative, or part of the Federal Interstate System, and possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the type.

Specific considerations for eligibility under Criterion C:

1. Early well-preserved example of a type:

Concrete bridges of a completely new type were introduced in Iowa during the study period and included all those in the category of Prestressed Spans including Types 501, 502, 503, 504, 505, 506, 522, 602, and 604. Certain bridges of these types predating 1956 could be considered early examples of the type in Iowa. Bridges meeting the age requirement should be further screened for additional features that make them the best representative of the group.

2. Rare survivor of a once common type:

This consideration is generally not applicable to concrete bridges as most forms are still being constructed today. Exceptions would be for short conventional cast-in-place spans that have been completely replaced by precast units today. The rigid frame bridges might warrant this consideration.

3. Exceptional example of work by an important engineer, architect or firm:

Bridges designed by local, regional or national designers that have made important and recognized contributions to the field may be eligible under this consideration. Important designers known to have worked in Iowa during the study period include (but are not limited to): Iowa State Highway Commission engineers, including L. M. Clauson and Paul F. Barnard; Ned Ashton, Iowa City; Modjeski and Masters, Mechanicsburg, Pennsylvania. Sverdrup & Parcel; and Howard Needles Tammen & Bergendoff (HNTB).

4. Innovative, specialized or patented designs of recognized importance:

Certain types of precast and prestressed concrete bridges built in Iowa during the study period may possess innovative or significantly specialized characteristics to warrant this consideration. Patented bridge designs or features introduced in Iowa are not known to exist from present research.

5. Large bridges of exceptional span or overall length:

Concrete bridges that are in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective.

Simple spans: Slab and girder spans in excess of 50'; T-beam, box beam and channel beam spans over 70'.

Continuous spans: Slab spans in excess of 60 feet; girder, T-beam and box-beam spans 100' or longer.

Prestressed spans: Slab spans in excess of 50 feet; girder, T-beam and box-beam spans 100' or longer; channel beams in excess of 50'.

Rigid Frame bridges: spans in excess of 50 feet.

Arch bridges: spans in excess of 200 feet.

Multiple span bridges with an overall length in excess of 400 feet.

6. Architecturally designed bridges of recognized aesthetic importance:

Concrete bridges may possess significant architectural treatment especially in the design of the abutments, piers, and railings and those possessing such features should be evaluated for their aesthetic importance or association with a noted architect or firm. Concrete arch bridges from this period may have been built for aesthetic reasons and therefore be given such consideration.

Quantifiable Bridge Selection Criteria (Criterion C, No. 5 Above)

TYPE CODE	TYPE NAME	QTY	DATE RANGE	SPAN RANGE	95th Percentile Long Main Span	Other Selection Criteria	# of Potentially Eligible Bridges
						Multiple Span Bridges >400' overall	
	SIMPLE SPANS						
101	Concrete Slab	345	42-70	18-55	39	>50'	1
102	Concrete Stringer, Multi-beam or Girder	125	46-70	18-68	55	>50'	12
103	Concrete Girder & Floorbeam system	16	50-62	23-99	69	>50'	4
104	Concrete T-Beam	103	52-70	18-99	68	>70'	2
105	Concrete Box Beam or Girder-multi	23	55-69	24, 30	30	>70'	0
106	Concrete Box Beam or Girder-single	1	61	30	30	>70'	0
122	Concrete Channel beam	100	48-70	18-48	35	>70'	0
100	Concrete Other	2	55, 55	23, 24	24		2
	CONTINUOUS SPANS						
201	Concrete Continuous Slab	921	42-70	6-66	51	>60'	4
202	Concrete Continuous Stringer/Multi-beam or Girder	20	42-60	19-100	100	>100'	0
203	Concrete Continuous Girder & Floorbeam system	9	42-67	8-100	94	>100'	0
204	Concrete Continuous T-Beam	29	47-60	42-100	88	>100'	0
205	Concrete Continuous Box Beam or Girder-multi	23	57-67	61-109	109	>100'	10
	PRESTRESSED SPANS					Built Before 1956	
501	Prestressed Concrete Slab	7	53-64	19-43	40	>50'	0
502	Prestressed Concrete Stringer, Multi-beam or Girder	991	51-70	18-113	81	>100'	12
503	Prestressed Concrete Girder & Floorbeam system	5	54-70	25-56	54	>100'	0
504	Prestressed Concrete T-Beam	178	47-70	18-68	50	>100'	0
505	Prestressed Concrete Box Beam or Girders-multi	2	58,67	109, 82	100	>100'	2

TYPE CODE	TYPE NAME	QTY	DATE RANGE	SPAN RANGE	95th Percentile Long Main Span	Other Selection Criteria	# of Potentially Eligible Bridges
506	Prestressed Concrete Box Beam or Girder-single	2	57,60	8,44	40	>100'	0
522	Prestressed Concrete Channel beam	17	50-69	20-51	50	>50'	1
602	Prestressed Concrete Continuous Stringer, Multi-beam or Girder	56	55-70	30-82	81	>100'	1
604	Prestressed Concrete Continuous T-Beam	7	56-67	24-81	77	>100'	0
500	Prestressed Concrete Other	1	56	31			0
	RIGID FRAME						
107	Concrete Frame (Rigid)	8	42-70	20-50	49	>50'	0
207	Concrete Continuous Frame (Rigid)	2	63,70	10,30	30	>50'	0
	ARCH						
111	Concrete Arch Deck (w/fill over top)	6	47,63	9, 38	37	>200'	0
181	Concrete Arch Deck (no fill over top)	1	63	84		>200'	0
	TOTAL	3000					49

IOWA CULVERT SELECTION CRITERIA

REGISTRATION REQUIREMENTS

The period of significance for Culverts includes the entire study period from 1942 to 1970. Culverts less than 50 years of age that meet Registration Requirements must also possess characteristics of exceptional importance to be considered NR eligible. Culverts that meet Registration Requirements must also retain integrity of location, design, setting, materials, workmanship, feeling and association.

Specific considerations for eligibility under Criterion A:

1. A culvert that can be shown to be a contributing element of major bridge, road, or highway construction project that is eligible for the National Register of Historic Places for reasons that include the construction of the subject culvert.

Specific considerations for eligibility under Criterion C:

1. Innovative, specialized or patented designs of recognized importance:

Certain types of precast and prestressed concrete culverts bridges built in Iowa during the study period may possess innovative or significantly specialized characteristics to warrant this consideration. Patented culvert designs or features introduced in Iowa are not known to exist from present research.

IOWA STEEL BRIDGE SELECTION CRITERIA

REGISTRATION REQUIREMENTS

The period of significance for steel bridges includes the entire study period from 1942 to 1970. Bridges less than 50 years of age that meet Registration Requirements must also possess characteristics of exceptional importance to be considered NR eligible. Bridges that meet Registration Requirements must also retain integrity of location, design, setting, materials, workmanship, feeling and association.

Specific considerations for eligibility under Criterion A:

1. A large bridge establishing the first highway crossing of a major waterway at a given location.
2. A bridge which established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use.
3. A bridge that was built as part of a major state highway project or bridge building initiative, or part of the Federal Interstate System, and possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the type.

Specific considerations for eligibility under Criterion C:

1. Early well-preserved example of a type:

Steel bridges of a completely new type were not introduced in Iowa during the study period with the exception of a prestressed welded steel girder bridge built in 1960 by Iowa State Highway Commission. Certain types of welded girder bridges, tied arch bridges and rigid frame bridges built in Iowa prior to about 1955 may be relatively early examples of their type to warrant this consideration.

2. Rare survivor of a once common type:

This consideration is generally not applicable to metal bridges because the study has such a recent starting point (1942) that nearly all of metal bridges constructed during the study period remain in service in an unaltered condition. This consideration can also apply to nearly-obsolete bridge types that were still being built such as certain riveted girder and pony truss bridges dating from after 1960.

3. Exceptional example of work by an important engineer, architect or firm:

Bridges designed by local, regional or national designers that have made important and recognized contributions to the field may be eligible under this consideration. Important designers known to have worked in Iowa during the study period include (but are not limited to): Iowa State Highway Commission engineers, including L. M. Clauson and Paul F. Barnard; Ned Ashton, Iowa City; Modjeski and Masters, Mechanicsburg, Pennsylvania. Sverdrup & Parcel; and Howard Needles Tammen & Bergendoff (HNTB).

4. Innovative, specialized or patented designs of recognized importance:

Certain types of welded girder bridges, tied arch bridges, rigid frame bridges, and prestressed girder bridges built in Iowa during the study period may possess innovative or significantly specialized characteristics to warrant this consideration. Patented bridge designs or features introduced in Iowa are not known to exist from present research.

5. Large bridges of exceptional span or overall length:

Steel bridges that are in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective.

Simple beam spans: Bridges over 100' in length of welded plate girders, composite decks or orthotropic decks, dating prior to 1955 should be individually evaluated for unique characteristics. Single spans 300' or greater. Multi-span bridges with 5 or more spans with the longest span at least 80'. Bridges with an overall length in excess of 400 feet. Girder & Floorbeam bridges over 150 feet in span length. Bridges of the steel welded I-girder with diaphragms type over 150 feet in span length constructed prior to 1960 should be considered as possibly possessing significant engineering characteristics.

Continuous beam spans: Main spans in excess of 200 feet clear span; structures in excess of 2000 feet overall length.; box beam spans exceeding 400'; continuous welded I-girder bridges with diaphragms or floorbeams with main spans greater than 150 feet constructed prior to 1950 may possess significant engineering characteristics and/or be early and large examples of the type, main spans greater than 250 feet built before 1960, and 300' built before 1970. [Possible exception: Type 432, FHWA 33470 -1953, not of national significance, but a fairly early example of the type and the first of the type in Iowa. With a total of 8 spans, a main span of 150', and an overall length of 1140' it was a fairly adventurous design for Iowa at the time.]

Trusses: Overall bridge length of 2000' or greater. Deck truss with main span of 200 feet or greater; Simple thru trusses in excess of 400 feet; Pony trusses 150' or greater; Continuous thru-trusses 400' or greater. Early examples of all-welded trusses (prior to 1950) and early example of special-alloy bridges (prior to 1960) merit specific evaluation if this information is available.

Suspension, Steel arch, and rigid frame bridges should be considered regardless of span length.

6. Architecturally designed bridges of recognized aesthetic importance:

Most steel bridge designs lack opportunity for significant architectural treatment except in the design of the abutments, piers, and railings, details to be evaluated under this consideration. Welded girder bridges and arch bridges are likely types to have details influenced by aesthetic considerations; the evidence of an architect's involvement in the design warrants further study.

Quantifiable Bridge Selection Criteria (Criterion C, No. 5 Above)

TYPE CODE	TYPE NAME	QTY	DATE RANGE	SPAN RANGE	95th Percentile Long Main Span	Other Selection Criteria	Number of Potentially Eligible Bridges
	SIMPLE BEAM SPANS					>100' in length of welded plate girders, composite decks or orthotropic decks built before 1955 Single Spans >300' Multi-span bridges w/ >5 spans of 80' each >400' Overall length	
302	Steel Stringer, Multi-beam or Girder	2449	42-70	10-370	70	>150' in span length	1*
303	Steel Girder & Floorbeam system	44	46-68	10-140	118	>150' in span length	0
324	Steel Welded I-Girder w/Diaphragms (2 Girders)	1	63	120	N/A	>150' in span length built before 1960	1
300	Steel Other	6	45-59	15-100	100		1
	CONTINUOUS BEAM SPANS						
402	Steel Continuous Stringer, Multi-beam or Girder	1079	42-70	8-225	117	>2,000' overall length >200' main span	1 0*
403	Steel Continuous Girder & Floorbeam system	31	47-69	22-425	154		3
405	Steel Continuous Box Beam or Girders-multi	1	69	144		>400' span length	1
422	Steel Continuous Channel beam	1	63	125			1
423	Steel Continuous Welded I-Girder w/Diaphragms (3+ Girders)	174	48-70	59-188	155	>150' spans built before 1950 >250' spans built before 1960 >300' spans built before 1970	0 0 1
424	Steel Continuous Welded I-Girder w/Diaphragms (2 Girders)	3	65-67	74-87	87	>150' spans built before 1950 >250' spans built before 1960 >300' spans built before 1970	0 0 0

TYPE CODE	TYPE NAME	QTY	DATE RANGE	SPAN RANGE	95th Percentile Long Main Span	Other Selection Criteria	Number of Potentially Eligible Bridges
432	Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)	50	53-68	62-240	166	>150' spans built before 1950 >250' spans built before 1960 >300' spans built before 1970	0 0 3
433	Steel Continuous Welded I-Girder w/Floorbeams (3+ Girders)	3	66-68	119-129	129	>150' spans built before 1950 >250' spans built before 1960 >300' spans built before 1970	0 0 0
400	Steel Continuous Other	1	56	8		Listed as "Walkway" in database	1?
	TRUSSES					>2,000 in total length	
309	Steel Truss-deck	2	56,64	50,100	97	>200' Main span	0
310	Steel Truss-thru	93	45-70	60-421	190	>400' Main span	0*
380	Steel Pony Truss	290	42-70	30-110	90	>150' Main span	0
410	Steel Continuous Truss-thru	2	50,52	420	420	>400' Main span	1*
	SUSPENSION						
313	Steel Suspension	1	56	644			1
413	Steel Continuous Suspension	1	60	740			0*
	STEEL ARCH						
311	Steel Arch Deck (w/fill over top)	1	45	16			1
312	Steel Arch-thru	1	70	570			0*
412	Steel Continuous Arch-thru	1	43,43	845,845			1
	STEEL RIGID FRAME						
407	Steel Continuous Frame (Rigid)	1	50	70			1
	TOTAL	4236					19

*There were additional steel bridges that were selected with the above criteria. However, the Type 310 bridge was previously determined as not eligible and Types 302, 312, 402, 410, and 413 bridges have been exempted under the new Interstate Exemption Criteria.

95th Percentile bridge sig statement that is not major effort:

This bridge was chosen for Phase II architectural survey as it appeared to potentially meet one of the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970 as a large bridge of exceptional span or overall length that are "in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective." The Madrid Avenue Bridge is a steel continuous welded I-girder bridge (Type 423) that is in the 95th percentile in main span length. The 95th percentile for span length is 155'; while the length of the main span of the Madrid Avenue Bridge is 171'. Though this bridge is within the 95th percentile for span length; it does not represent a major engineering or construction effort. Type 423 bridges were built with spans of up to and above 300' in the early 1970s. Therefore, the bridge is not eligible for listing in the NRHP under Criterion C as it does not meet the registration requirement for large bridges of exceptional span or overall length. However, the bridge was part of the Red Rock Dam and Reservoir project and thus does meet registration requirements under Criterion A for its association with the major federal undertaking of the construction of the Red Rock Dam and Reservoir.

IOWA TIMBER BRIDGE SELECTION CRITERIA

REGISTRATION REQUIREMENTS

The period of significance for timber bridges includes the entire study period from 1942 to 1970. Bridges less than 50 years of age that meet Registration Requirements must also possess characteristics of exceptional importance to be considered NR eligible. Bridges that meet Registration Requirements must also retain integrity of location, design, setting, materials, workmanship, feeling and association.

Specific considerations for eligibility under Criterion A:

1. A large bridge establishing the first highway crossing of a major waterway at a given location.
2. A bridge which established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use.
3. A bridge that was built as part of a major state highway project or bridge building initiative, or part of the Federal Interstate System, and possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the type.

Specific considerations for eligibility under Criterion C:

1. Early well-preserved example of a type:
Timber bridges of a completely new type, glue-laminated construction, may have been introduced in Iowa during the study period. Early examples would date before 1950.
2. Innovative, specialized or patented designs of recognized importance:
Certain types of glue laminated timber bridges built in Iowa during the study period may possess innovative or significantly specialized characteristics to warrant this consideration. Patented bridge designs or features introduced in Iowa are not known to exist from present research.
3. Large bridges of exceptional span or overall length:

Single-span timber slab and timber girder bridges less than 40 feet in length constructed during the period 1942-1970 are very unlikely to possess significant engineering characteristics. Bridges above 40' in length constructed of solid timber should be individually

evaluated for unique characteristics. Bridges with stringers, beams or girders constructed of laminated members, built prior to 1960 and with spans in excess of 50' merit specific evaluation. Multi-span timber bridges with ten or more spans with the longest span at least 25' may represent a significant overall length or cost and should therefore be individually evaluated.

Quantifiable Bridge Selection Criteria (Criterion C Above)

TYPE CODE	TYPE NAME	QTY	DATE RANGE	SPAN RANGE	Other Selection Criteria	# of Potentially Eligible Bridges
701	Timber Slab	4	47-65	19-20	>40' in length of solid timber >10 spans of 25' each	0 0
702	Timber Stringer, Multi-beam or Girder	1544	42-70	12-79	>40' in length of solid timber >10 spans of 25' each >50' laminated wood built prior to 1960	6 2 0
	TOTAL	1548				8

**APPENDIX C:
HAER CARDS**

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Edgewood Road Bridge

FHWA: 1420

LOCATION

Edgewood Road over Cedar River

Sec: 7 T: 83N R: 7W

Linn County, Iowa

DATE(S) OF CONSTRUCTION

1969

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (<50 yrs old)

CONDITION

Good

span number: 5

span length: 144

total length:664

roadway wdt: 64.3

OWNER:

City of Cedar Rapids

superstructure: Steel Continuous Box Beam or Girder-multi

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Steel guardrails, bronze plaque

This five span bridge carries Edgewood Road NW over the Cedar River in Cedar Rapids, Iowa. Concrete piers support continuous box beam girders and a cast-in-place concrete deck with steel guardrails. The bridge was designed by Ned L. Ashton of Iowa City and cost \$1,285,816 to construct. The general contractor was Cramer Brothers Construction Company of Des Moines and the steel fabricator for the bridge was the Pittsburgh-Des Moines Steel Company. In 1971, the bridge was awarded a certificate of merit by the American Institute of Steel Construction in its medium span, high clearance award category.

In April 1965, the Cedar Rapids City Council approved a study for an extension of Edgewood Road and Highway 150 in the NE and NW quadrants of Cedar Rapids to serve as beltways around the city. The Kansas City engineering firm of Howard, Needles, Tammen, and Bergendoff was hired to conduct the study. The report gave two alternatives for extension of Edgewood Road, which was touted as an "inner belt" where traffic could bypass the downtown business district. The Highway 150 route was the long term "outer belt" that was a much larger undertaking. The Edgewood Road extension would serve the needs of travelers until the outer route was constructed. The report noted that it may be difficult to determine an exact alignment in the rough terrain of the area. On April 27, 1966, the Cedar Rapids City Council authorized the engineering and planning departments to proceed with establishing the alignment and right-of-way for the road extension. At that time, Edgewood Road only went as far north as O Avenue NW. The new roadway would extend north approximately 3 1/2 miles to Blairs Ferry Road NE, which was in Linn County. Funding from that section of road was to be funded through the Linn County Secondary Road Fund, which caused some controversy as the new road and large bridge were not typical secondary road structures. Plans for the new road and bridge were approved by City Council in July 1968. Condemnation of land for the bridge abutments began in the fall of 1968. By December, the contractor, Cramer Brothers, had completed half of the first pier. By November 1969, the bridge was almost complete with only handrails and the median strip remaining unfinished. Though the bridge itself was completed, the approaches were not; so, it was dubbed the "Bridge to Nowhere" by a Cedar Rapids mayoral candidate in October 1969. On December 19, 1969, the Edgewood Road Bridge was opened with a ribbon cutting ceremony attended by Cedar Rapids and Linn County officials.

The Edgewood Road Bridge meets Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The bridge was included in the intensive survey as it was the only steel continuous box beam bridge built within the study period. The bridge meets the registration requirement under Criterion C as an exceptional example of work by an important Iowa engineer, Ned Ashton. However, the bridge is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. When the bridge reaches 50 years of age, it should be considered eligible under the above mentioned criteria.

NAME(S) OF STRUCTURE

Edgewood Road Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE Iowa Department of Transportation, Highway and Transportation Map of Linn County, IA 2001

Sources:

Cedar Rapids Gazette: 1965-1971.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Harts Mill Road Bridge

FHWA: 2120

LOCATION

Harts Mill Road

Clinton County, Iowa

Sec: 11 T: 81N R: 6E

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (< 50 yrs. old)

CONDITION

Good

span number: 3

span length: 65

total length: 173

roadway wdt: 29.8

OWNER:

City of Clinton

superstructure: Conc Continuous Slab

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrail; pedestrian lane

This three-span 173' by 29.8' concrete bridge carries Harts Mill Road on the western outskirts of Clinton. Concrete piers support a continuous concrete slab with cast-in-place decking. A pedestrian lane has been incorporated outside the automotive guardrail along the south edge of the bridge.

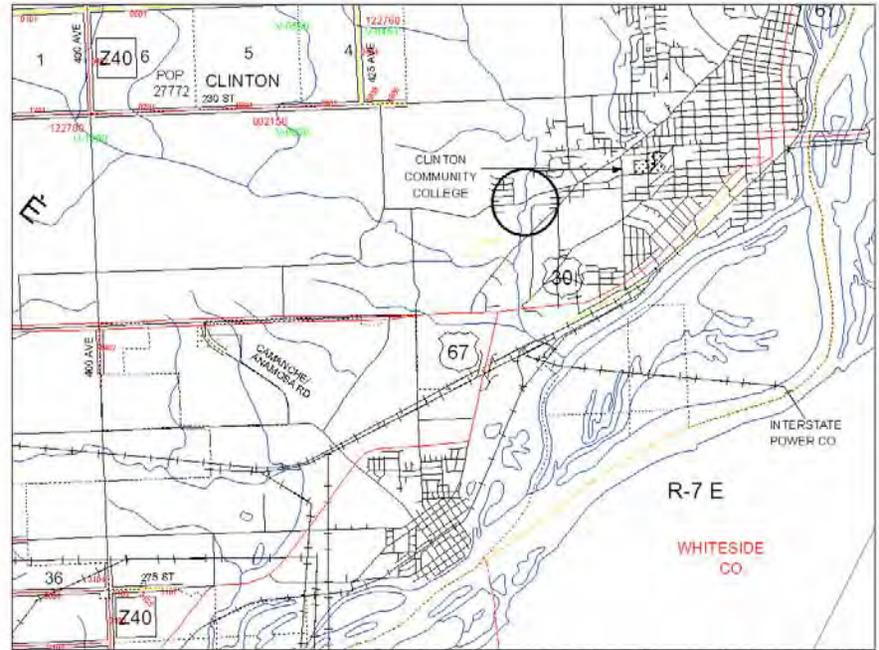
The Harts Mill Road Bridge meets Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. With a main span in excess of 60', the structure meets the registration requirement under Criterion C for large Type 201 bridges of exceptional span or overall length. However, the bridge is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. When the bridge reaches 50 years of age, it should be considered eligible under the above mentioned criteria.

Most forms of concrete simple span bridges can be designed as continuous spans. In Iowa, five of the simple span types described above are found in the continuous form and include the Concrete Continuous Slab bridge [Type 201]; the Concrete Continuous Stringer, Multi-beam or Girder bridge [Type 202]; the Concrete Continuous Girder & Floorbeam bridge [Type 203]; the Concrete Continuous T-beam bridge [Type 204]; and the Concrete Continuous Box Beam or Girder-multi (or box beam) bridge [Type 205]. All of these bridge types are in most ways identical to their simple span versions (see descriptions above), with the primary difference being the continuation of the structural member over one or more intermediate piers. This difference between simple and continuous spans is visually apparent because only a single bearing is required to support a continuous girder at an intermediate pier rather than two separate bearings at each pier to support each end of the girders of a simple span bridge. Another visual cue which is apparent in some cases, is the joint where the ends of continuous beams meet, which is not located over the piers, but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

NAME(S) OF STRUCTURE

Harts Mill Road Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Annual Report of the State Highway Commission, Iowa State Highway Commission, Ames, Iowa.

Iowa Department of Transportation, Electronic Records Management System (ERMS).

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

SW 9th Street Bridge

FHWA: 3960

LOCATION

SW 9th St. over Raccoon River

Polk County, Iowa

S: 10 T: 78N R: 24W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (< 50 yrs. old)

CONDITION

Good

span number: 16

span length: 82

total length: 1136

roadway wdt: 54.1

OWNER:

City of Des Moines

superstructure: Prestressed Conc Box Beam or Girder-multi

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete box beams; conc./mtl. Gdrails

This 16-span 1,136' by 54' viaduct carries SW 9th Street over the Raccoon River in Des Moines. Concrete piers support prestressed concrete box beams.

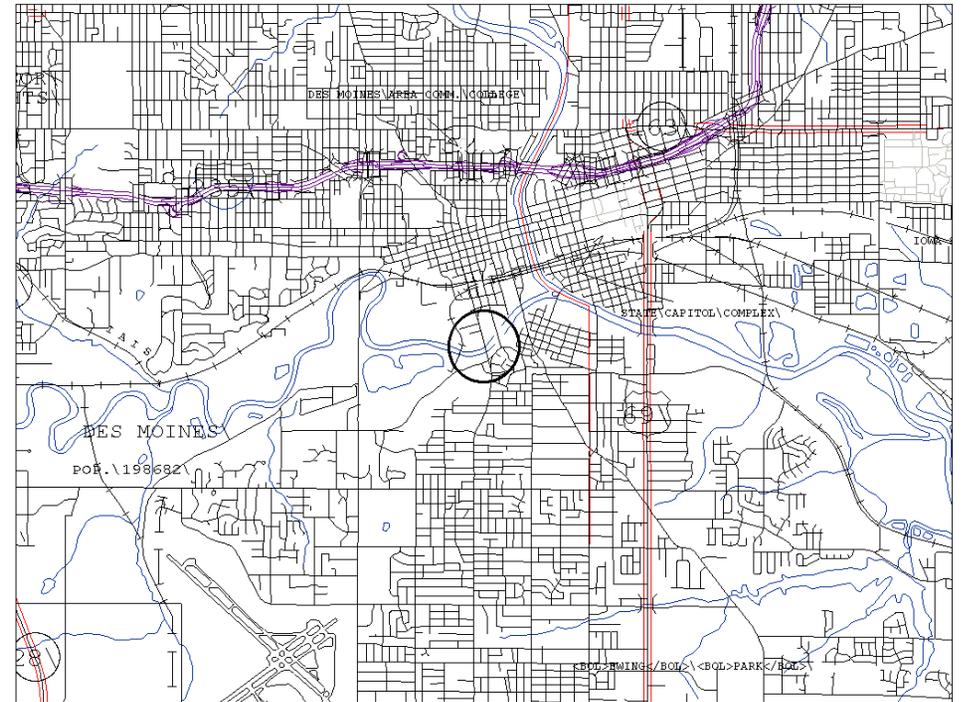
In the early 1960s, bridges across the Des Moines metropolitan area were failing. In 1964, a steel beam from the 7th Street Viaduct fell to the ground. The University Avenue bridge had structural failures that caused closure of the two outside lanes of traffic. Three other bridges on Walnut Street downtown, 7th Street over the Raccoon River, and 6th Avenue near Birdland Park also had serious deterioration problems. In 1964, the city launched an extensive bridge building plan that involved viaducts on SW 7th, 8th and 9th Streets and bridges spanning the Raccoon River on SW 7th and 9th Streets. Traffic on SW 8th Street would be one-way northbound; while SW 9th would be one-way southbound. Before the 8th and 9th Street viaduct/bridge complex construction could begin, the 7th Street viaduct, which was closed in 1964, had to be replaced. Four railroad companies agreed to pay half of the cost for the new viaduct, which spans their lines. The 7th Street Viaduct was completed in the fall of 1966.

While plans were underway for the 8th and 9th Street complex, the need for a new 9th Street Bridge became glaringly evident as a driver missed a 2' wide gap in the wood floor boards of the through truss 9th Street Bridge. By March 1966, right of way for the 9th Street Viaduct was being purchased and project designs were being completed. On December 11, 1967, the SW 9th Street Viaduct and Bridge were dedicated.

The SW 9th Street Viaduct meets Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The viaduct meets the registration requirement for large bridges of exceptional spans of over 100' for T-beam and box beam spans with its three center spans of 130'. However, the viaduct is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. When the bridge reaches 50 years of age, it should be considered eligible under the above mentioned criteria.

NAME(S) OF STRUCTURE
SW 9th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 3960
Des Moines Register 1964-1967.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

SW 8th Street Viaduct

FHWA: 3974

LOCATION

SW 8th Street

Polk County, Iowa

S: 10 T: 78N R: 24W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (< 50 yrs. old)

CONDITION

Good

span number: 3

span length: 157

total length: 1515

roadway wdt: 26

OWNER:

City of Des Moines

superstructure: Steel Continuous Girder & Floorbeam

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete and metal guardrails

Carrying SW 8th Street over a railroad and Cherry and Elm Streets in Des Moines, this 18-span, 1,515' by 26' viaduct was constructed in 1967. Concrete piers support a cast-in-place concrete deck.

In the early 1960s, bridges across the Des Moines metropolitan area were failing. In 1964, a steel beam from the 7th Street Viaduct fell to the ground. The University Avenue bridge had structural failures that caused closure of the two outside lanes of traffic. Three other bridges on Walnut Street downtown, 7th Street over the Raccoon River, and 6th Avenue near Birdland Park also had serious deterioration problems. In 1964, the city launched an extensive bridge building plan that involved viaducts on SW 7th, 8th and 9th Streets and bridges spanning the Raccoon River on SW 7th and 9th Streets. Traffic on SW 8th Street would be one-way northbound; while SW 9th would be one-way southbound. Before the 8th and 9th Street viaduct/bridge complex construction could begin, the 7th Street viaduct, which was closed in 1964, had to be replaced. Four railroad companies agreed to pay half of the cost for the new viaduct, which spans their lines. The 7th Street Viaduct was completed in the fall of 1966.

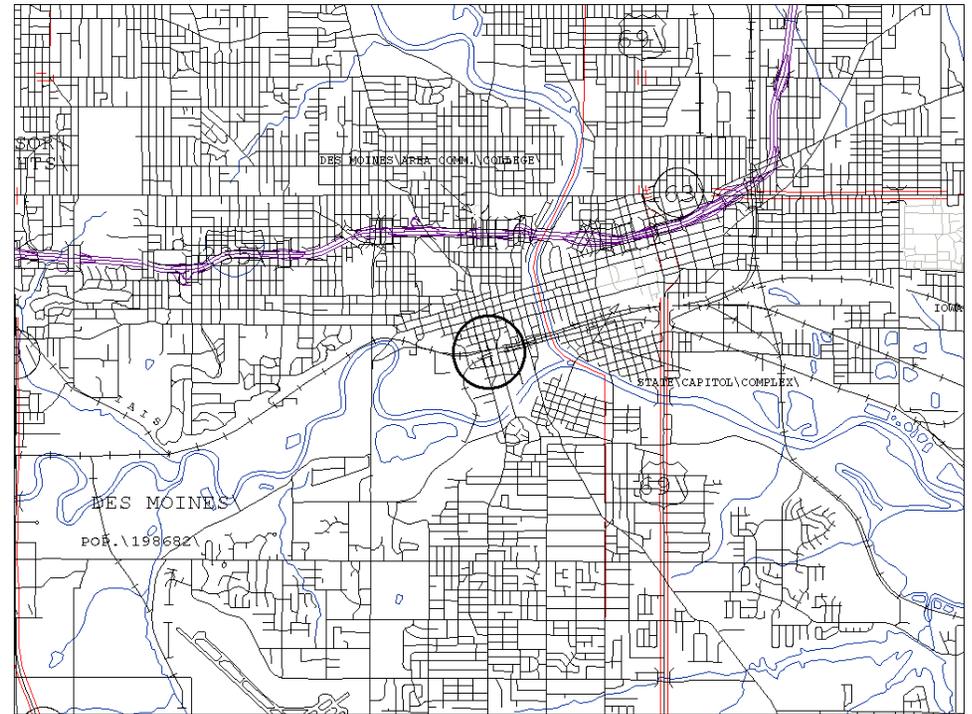
In November 1967, the contract for construction of the SW 8th Street Viaduct was awarded to Jensen Construction Company for \$1,194,803. Construction of the 8th Street Viaduct began as the 9th Street Viaduct and Bridge were opened in December 1967. On October 21, 1968, the 8th Street Viaduct was opened.

The SW 8th Street Viaduct meets Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The viaduct meets the registration requirement under Criterion C for large bridges of exceptional spans of over 100' for T-beam and box beam spans with its three center spans of 130'. However, the viaduct is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. When the bridge reaches 50 years of age, it should be considered eligible under the above mentioned criteria.

NAME(S) OF STRUCTURE

SW 8th Street Viaduct

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Polk County, IA 2010

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 3974

Des Moines Register 1964-1967.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Elgin Bridge
FHWA: 4490

LOCATION

Center St. over Turkey River
Fayette County, Iowa

S: 13 T: 94N R: 7W

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 4
span length: 99
total length:343
roadway wdt: 22

OWNER:

Town of Elgin

superstructure: Conc Continuous T-Beam
substructure: Concrete piers and abutments
floor/decking: Concrete Cast-in-place
other features: Concrete guardrail

This four-span 343' by 22' concrete bridge carries County Hwy. B64 (Center Street) over the Turkey River in Elgin. It features integral slab and beam construction with T-beams and reinforced concrete deck girders.

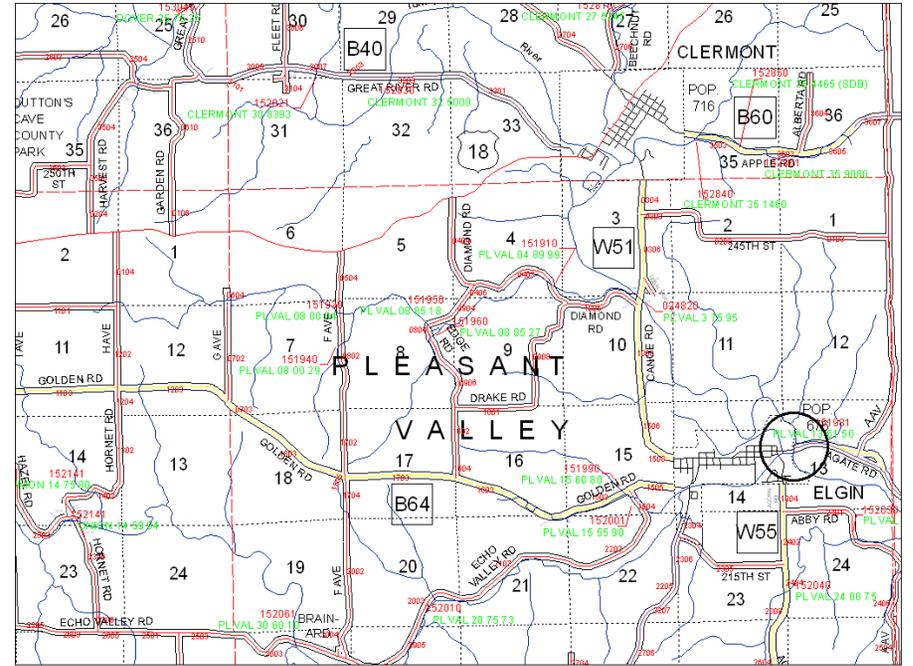
The Elgin Bridge is not eligible for inclusion in the NRHP as it does not meet any registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970. The bridge was initially listed as a Type 104 bridge; a simple span, concrete T-beam bridge. As such its two center spans of 99' met the registration requirements for that bridge type. However, examination of blueprints revealed that the bridge was actually a Type 204, continuous concrete T-beam bridge. The registration requirement for this type bridge requires a long span of over 100', which the Elgin Bridge does not meet. The Elgin Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

Concrete Continuous T-beam bridges [Type 204] are in most ways identical to their simple span versions, with the primary difference being the continuation of the structural member over one or more intermediate piers. This difference between simple and continuous spans is visually apparent because only a single bearing is required to support a continuous girder at an intermediate pier rather than two separate bearings at each pier to support each end of the girders of a simple span bridge. Another visual cue which is apparent in some cases, is the joint where the ends of continuous beams meet, which is not located over the piers, but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

NAME(S) OF STRUCTURE

Elgin Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 004490

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Veterans Memorial Bridge

FHWA: 5040

LOCATION

1st Avenue over 21st Street and RR

S: 21 T: 89N R: 28W

Webster County, Iowa

DATE(S) OF CONSTRUCTION

1968

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 yrs. old)

CONDITION

Good

span number: 17

span length: 69

total length:1044

roadway wdt: 29.8

OWNER:

City of Fort Dodge

superstructure: Prestressed Conc Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features:

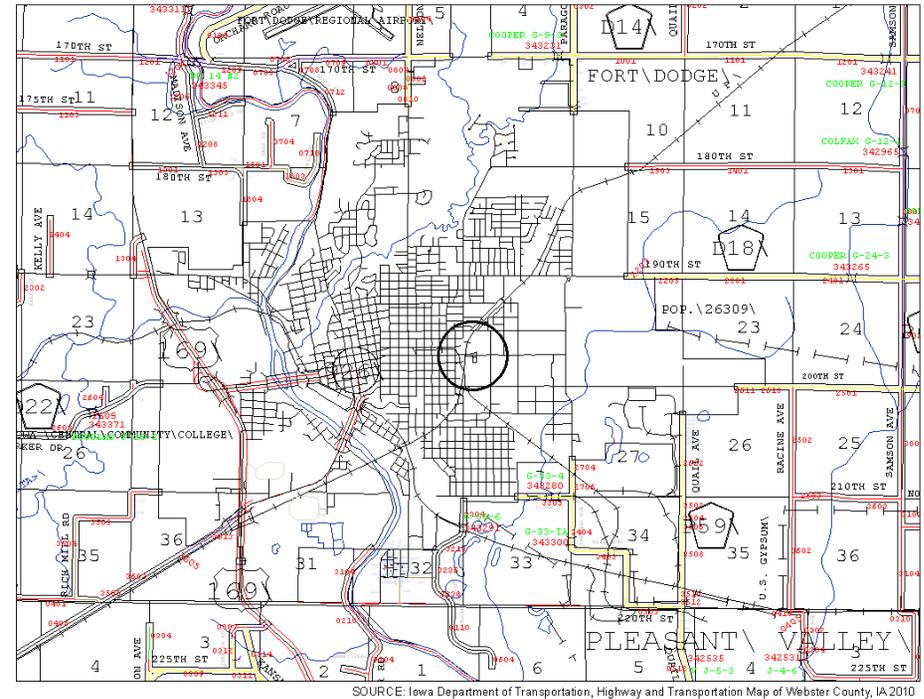
This 17-span 1,044' by 29.8' bridge carries 1st Avenue S. over 21st Street and a spur of the Union Pacific railroad line in Fort Dodge. The 17 spans of the bridge range in width from 55'7" to 69'. Six prestressed concrete beams are spaced 6'2" apart to form the almost 30' roadway. Piers constructed with reinforced concrete columns are surmounted by reinforced concrete caps that support the bridge structure. Four of the fifteen piers are expansion piers; while the remaining piers are fixed (Wallace, Holland, Kastler, Schmitz 1967).

In the summer of 1967, the Fort Dodge City Council established First Avenue South as a main east-west route from the downtown area to the Crossroads Shopping Center. A viaduct was planned to span the ten sets of railroad tracks and 21st Street. The bridge was designed by the engineering firm, Wallace, Holland, Kastler, & Schmitz of Mason City, Iowa. In October 1967, bids for the new structure were opened and Weldon Brothers Construction Company of Iowa Falls received the winning bid at \$472,019 (Fort Dodge Messenger, October 25, 1968:1).

The Veterans Memorial Bridge is not eligible for inclusion in the NRHP. Though it meets the registration requirement under Criterion C for multi-span concrete bridges with an overall length in excess of 400', as outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970; the bridge is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. The bridge does not meet any other registration requirements and is therefore not eligible under any criteria. The bridge did not spur development; but was constructed to link already developed areas. By the late 1960s, viaducts were commonly used to span wide expanses such as railroad tracks and yards.

NAME(S) OF STRUCTURE
Veterans Memorial Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 5040; Blueprints for First Avenue Bridge, Wallace, Holland, Kastler, Schmitz, 1967; Fort Dodge Messenger, October 25, 1968:1;

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Thurman Corporate Line Rd. Bridge

FHWA: 11290

LOCATION

225th west edge of town

Fremont County, Iowa

S: 35 T: 70N R: 43W

DATE(S) OF CONSTRUCTION

1950

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 100

total length: 100

roadway wdt: 17.4

OWNER:

Fremont County

superstructure: Steel Other

substructure: Buried steel H-pile

floor/decking: Timber

other features: Creo. timber plank decking

Constructed in 1950, this single-span 100' by 17.4' steel double panel "Bailey Bridge" carries Level B Road / Thurman Corp. Line over Plum Creek in Thurman. While no specific information could be found on the purchase of this bridge; in 1949, the Fremont County Board of Supervisors purchased "Bailey Bridge spans" from the Highway Bridge Company for \$10,625.00 (*Hamburg Reporter* 1949:7). One year earlier, Mills County, to the north of Fremont County, purchased a Bailey Bridge to span Silver Creek (*Council Bluffs Nonpareil* 1948:12).

There are two additional Bailey bridges in the county (FHWA 6215, 159460), one of which (6215) was installed in 2007 after a flood had washed away a bridge. A Bailey bridge is also used as an approach span to a pony truss northeast of Hamburg (FHWA 158970). All of the Bailey bridges in Fremont County are standard double trusses. Steel girders on 5' centers carry steel I-beams, over which 3x6 creo. timber nailers support 3x12 creo. timber plank decking. Categorized as Type 300 in the IaDOT's SI&A database, there appears to be only six Bailey bridges in the state including the three aforementioned bridges, one in Lucas County (FHWA 226860), one in Jefferson County (FHWA 201610), and one in Buchanan County (FHWA 81500).

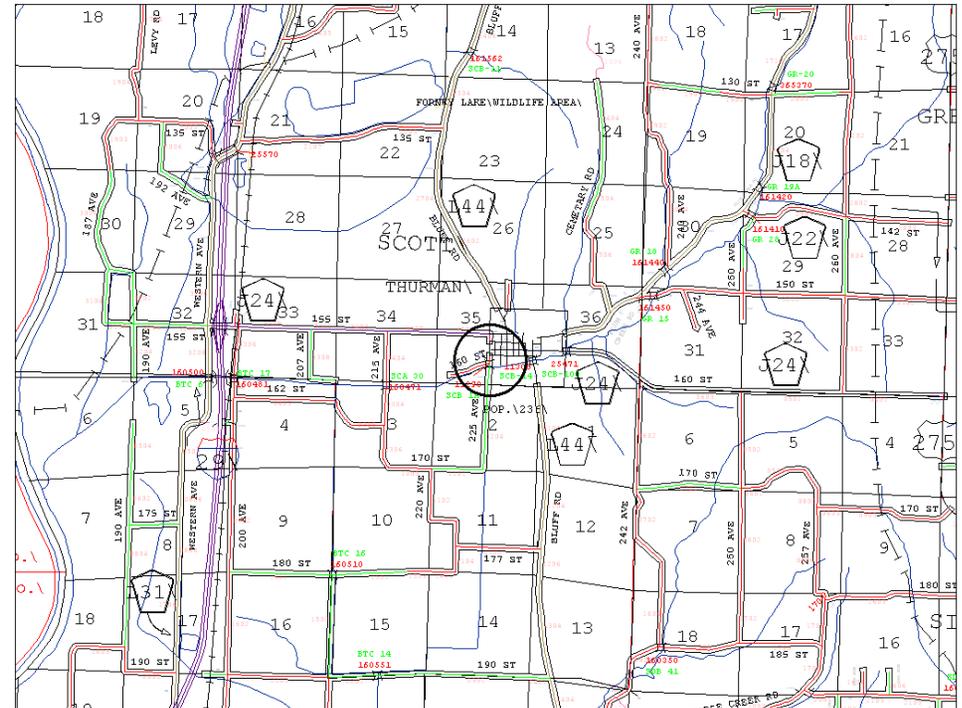
The British Bailey Bridge was invented by Donald Bailey, a British engineer, to withstand the heavier 40-ton tank. His design was adopted by the US military at the outset of World War II (M1 in US nomenclature). They were desirable for their ease of transportation and rapid set-up in wartime situations. No specialized equipment was needed, and all of the parts needed for a Bailey could be moved by 5-ton dump trucks and trailers. Standardized designs and modular components meant that span lengths could be adapted to each location. After the war, Bailey bridges were sold as surplus as well as distributed through the Federal Works Agency as part of their disaster relief program (*Council Bluffs Nonpareil* 1947:1). Several Bailey bridges were sent to Iowa as there had been extreme flooding in the summer of 1946 that had washed out many bridges.

The Thurman Bailey bridge meets several Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The bridge is a rare survivor of the Bailey bridge type that was used after WWII by several municipalities across the state to replace flood ravaged bridges or as an economical solution for a new crossing. The bridge is also a specialized design of recognized importance for its ease of construction and adaptability to many different situations. The bridge has a high degree of integrity with only minor repairs to the wood deck being completed in 2004.

NAME(S) OF STRUCTURE

Thurman Corporate Line Rd. Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Fremont County, IA2010

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 11290;
Fremont County Bridge Inspection Report, bridge SCB-1A (J. Owen, 19 April 2007);
Bailey Bridge Technical Manual TM 5-277, Department of the Army (Aug 1972);
Council Bluffs Nonpareil, October 21, 1947:5.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

IA 5 Bridge
FHWA: 13870

LOCATION

IA 5 over Little Shoal Creek
Appanoose County, Iowa

S: 8 T: 67N R: 18W

DATE(S) OF CONSTRUCTION

1950

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 3
span length: 70
total length:182
roadway wdt: 26

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Frame (Rigid)
substructure: Steel pier legs with concrete pilings
floor/decking: Concrete Cast-in-place
other features: Concrete guardrail (not original)

This three-span 182' by 26' rigid continuous steel frame bridge carries IA 5 over Little Shoal Creek southwest of Cincinnati. The bridge was built in 1950 to replace a 42' x 15' wood bridge that was set askew over the creek. The channel of the creek was moved to the east and this new bridge was built. The bridge consists of two 55' end spans and a 70' center span and features a continuous I-Beam superstructure and riveted steel pier leg substructure. The tapered steel legs measure over 18' from the I-beams to the concrete piers. The open steel rails have been replaced with solid concrete. The deck was also resurfaced in 1988. The bridge was designed by the ISHC in April 1948.

In 1949, relocation of IA Highway 5 north of Cincinnati was underway. In February 1950, the ISHC was working with the Missouri State Highway Commission on the relocation of the highway to the Missouri state line. No details were found on the highway or bridge's construction. However, an article on a newly finished roadside park on the "new highway" in the November 29, 1950 issue of the *Centerville Daily lowegian* indicated that the highway was completed by that time (*Centerville Daily lowegian* November 29, 1950:3).

This steel continuous rigid frame bridge is an early example of its type that was rarely used in Iowa. The simplest form of rigid frame bridge consists of a horizontal beam or girder span supported by legs (piers) at each end to which the beam is rigidly connected. Rigid frame bridges are continuous structures that have been called a hybrid of the arch and girder bridge because some of the vertical moments on the deck become horizontal thrusts in the legs that must be restrained by the abutments or leg foundations. The Steel Continuous Rigid Frame bridge [Type 407] is generally used for short spans such as highway overpasses and usually are one span and seldom consists of more than two spans. The Steel Continuous Rigid Frame bridge was considered costly and less practical than the concrete version and found little use for highways until the development of the slant-leg continuous steel rigid frame bridge in the 1960s. By the 1960s steel prices had eased while labor costs continued to rise, making steel bridges that could be quickly erected in any weather popular for overpasses on time sensitive limited-access highway projects.

The IA Highway 5 Bridge meets Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The bridge is a early well-preserved example of a steel continous rigid frame bridge that was rarely used in Iowa. The bridge is also significant as it is a multispan bridge, which is rarely seen in this bridge type. The bridge has a high degree of integrity with only deck resurfacing and handrail replacement.

NAME(S) OF STRUCTURE

IA 5 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 13870; Iowa State Highway Commission Design No. 287, 1948-1988; *Centerville Daily Iowegian* 1950.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 30 Des Moines River Bridge

FHWA: 15200

LOCATION

US 30 over Des Moines River

Boone County, Iowa

S: 31 T: 84N R: 26W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 7

span length: 109

total length: 659

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

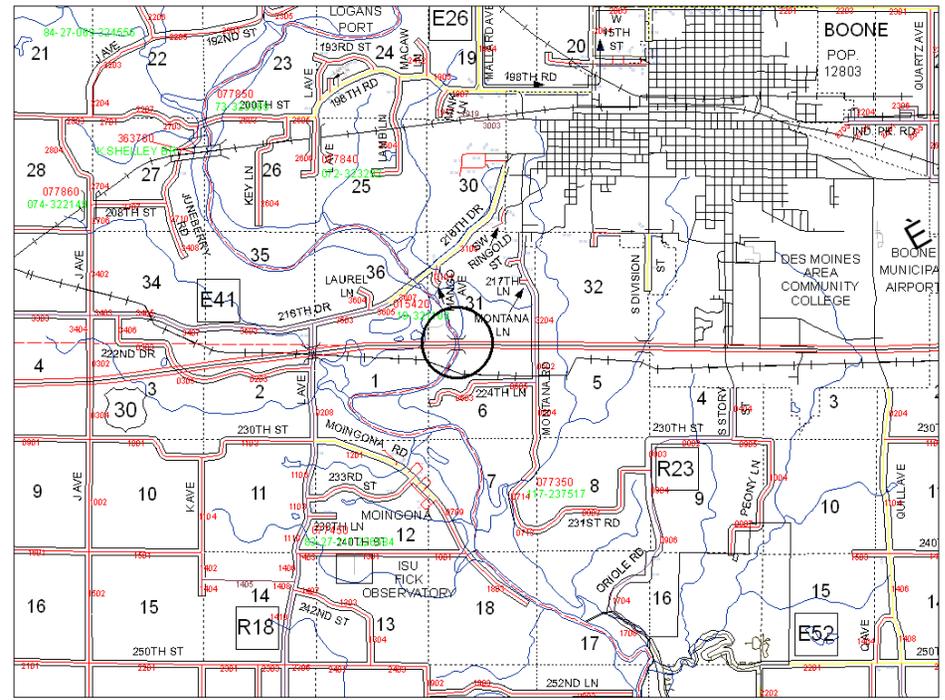
Carrying Eastbound US 30 over the Des Moines River southwest of Boone, this seven-span 659' by 30' double bridge was built in 1963 as part of the Highway 30 Bypass around Boone. Concrete piers support continuous welded I-girders with floorbeams and concrete cast-in-place decking. The five main spans measure just over 109 feet. The approach spans are just over 85 feet. The bridge was designed by the ISHC using standard specifications developed in 1960 and some supplemental specifications and special provisions. On May 24, 1962, the contract for the construction of the twin bridges over the Des Moines River was let to Weldon Brothers Construction Company of Iowa Falls. The bridges were completed in 1963. Sometime around 1964, the bypass near Boone was complete. It wasn't until 1967 that the entire bypass from Marshalltown to Ogden would be complete.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960.

The twin bridges over the Des Moines River do not meet any of the Registration Requirements outlined in the MPD, *Highway Bridges in Iowa: 1942-1970*. The bridges are not part of a first highway crossing of a major waterway. The Des Moines River at Boone was crossed on the original Highway 30. While the relocated US 30 from Marshalltown to Ogden undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development in the town of Boone or major changes in land use. Review of aerial photographs before and after the relocation indicate commercial development along the main connection from the highway into town as well as residential development on the south and west sides of town. From 1990 to 2007, the commercial development has increased along Highway 30 and on the east side of town near the airport. Lastly, the bridge was part of a major state highway project; however, the bridges themselves do not possess special characteristics, associations, or integrity that distinguish them as exceptional representatives of the Steel Continuous Welded I-Girder w/Floorbeams (2 Girders) Bridge type. From 1953 to 1968, 50 of this type of bridge were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE
US 30 Des Moines River Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 15200; *Cedar Rapids Gazette* 2/4/1960, 9/15/1960, 12/14/1960, 10/28/1962, 1/10/1961; Ames Daily Tribune 8/25/1960, 9/14/1960, 11/12/1960, 5/10/1962, 5/26/1962, 6/6/1963, 9/20/1963, 9/21/1963

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 30 Des Moines River Bridge

FHWA: 15210

LOCATION

US 30 over Des Moines River

Boone County, Iowa

S: 31 T: 84N R: 26W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 7

span length: 109

total length: 724

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

Carrying Westbound US 30 over the Des Moines River southwest of Boone, this seven-span 659' by 30' twin bridge was built in 1963. Concrete piers support continuous welded I-girders with floorbeams and concrete cast-in-place decking. The five main spans measure just over 109 feet. The approach spans are just over 85 feet. The bridge was designed by the ISHC using standard specifications developed in 1960 and some supplemental specifications and special provisions. On May 24, 1962, the contract for the construction of the twin bridges was let to Weldon Brothers Construction Company of Iowa Falls. The bridges were completed in 1963. Sometime around 1964, the bypass near Boone was complete. It wasn't until 1967 that the entire bypass from Marshalltown to Ogden would be complete.

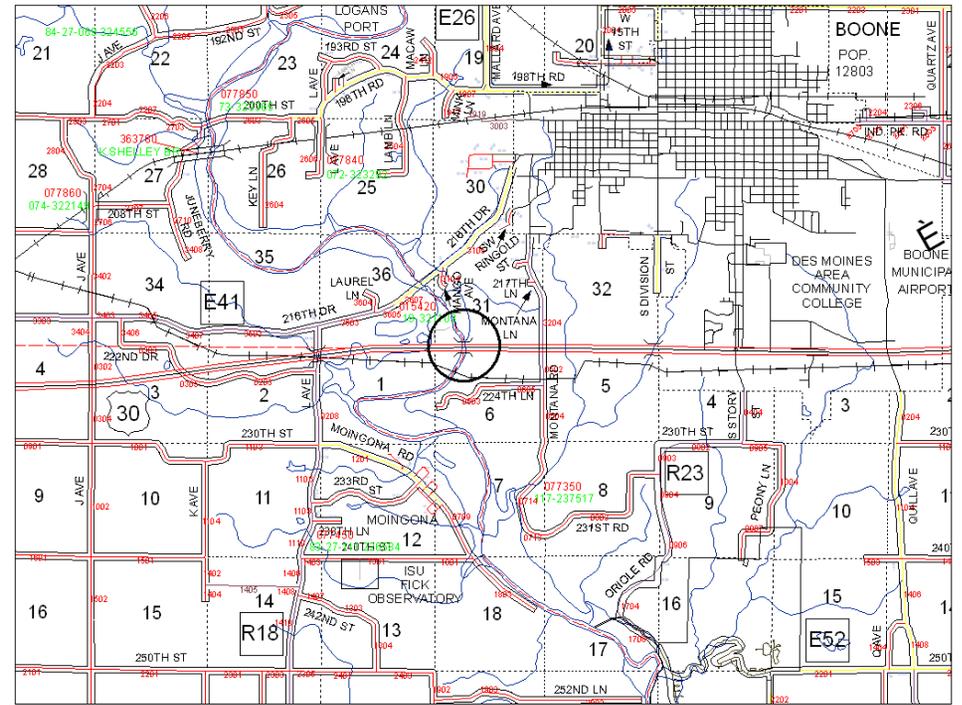
In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960.

The twin bridges over the Des Moines River do not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridges are not part of a first highway crossing of a major waterway. The Des Moines River at Boone was crossed on the original Highway 30. While the relocated US 30 from Marshalltown to Ogden undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development in the town of Boone or major changes in land use. Review of aerial photographs before and after the relocation indicate commercial development along the main connection from the highway into town as well as residential development on the south and west sides of town. From 1990 to 2007, the commercial development has increased along Highway 30 and on the east side of town near the airport. Lastly, the bridge was part of a major state highway project; however, the bridges themselves do not possess special characteristics, associations, or integrity that distinguish them as exceptional representatives of the Steel Continuous Welded I-Girder w/Floorbeams (2 Girders) Bridge type. From 1953 to 1968, 50 of this type of bridge were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE

US 30 Des Moines River Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 15200; *Cedar Rapids Gazette* 2/4/1960, 9/15/1960, 12/14/1960, 10/28/1962, 1/10/1961; *Ames Daily Tribune* 8/25/1960, 9/14/1960, 11/12/1960, 5/10/1962, 5/26/1962, 6/6/1963, 9/20/1963, 9/21/1963

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

CR33 Cedar River Bridge

FHWA: 15460

LOCATION

CR33 over Cedar River

Bremer County, Iowa

S: 16 T: 92N R: 14W

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 3

span length: 45

total length:122

roadway wdt: 28

OWNER:

Bremer County

superstructure: Conc Continuous Slab

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrail

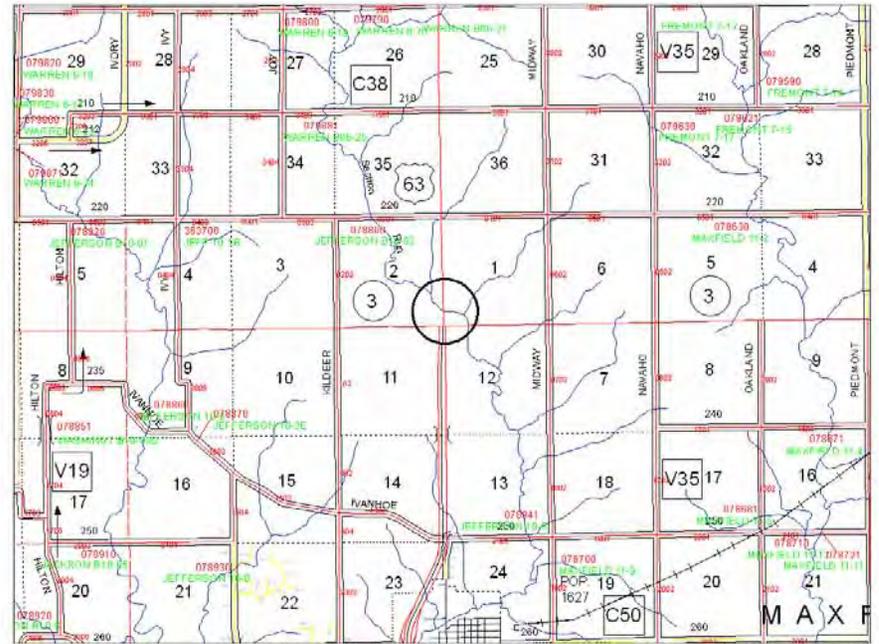
This three-span 122' x 28' cast-in-place concrete bridge was constructed in 1956 and crosses Quarter Section Run approximately three miles north of Denver. It features a continuous concrete slab and concrete piers, abutments and guardrails. The bridge replaced an existing concrete deck girder bridge in the same location.

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPDF, *Highway Bridges in Iowa: 1942-1970* as a continuous slab span bridge with a main span in excess of 60'. Though SI &A database has the main span as 66', as built drawings indicate that the main span is 45' 6", much less than the 60' threshold established by the registration requirements. Given these facts, the bridge does not meet the registration requirements for this bridge type or any other registration requirements; and is therefore recommended as not eligible for listing in the NRHP under any criteria.

The Concrete Continuous Slab bridge [Type 201] is in most ways identical to its simple span versions, with the primary difference being the continuation of the structural member over one or more intermediate piers. This difference between simple and continuous spans is visually apparent because only a single bearing is required to support a continuous girder at an intermediate pier rather than two separate bearings at each pier to support each end of the girders of a simple span bridge. Another visual cue which is apparent in some cases, is the joint where the ends of continuous beams meet, which is not located over the piers, but roughly at the third-points of the span where the positive and negative bending moments cancel each other. In Iowa there are nearly three times as many concrete continuous slab bridges (921) as concrete simple-span slab bridges (345). This is somewhat deceiving however, because most of these continuous slab bridges are short, three-span structures which were built continuous more because it was economical to do so – that is formed, reinforced and poured in a single operation, that because the advantages of continuity were employed for engineering reasons.

NAME(S) OF STRUCTURE
CR33 Cedar River Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:
Construction Plans, Design No. 156, Iowa State Highway Commission, 1956.

Inventoried By:
Michael C. Yengling

Affiliation:
The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

York Avenue Bridge

FHWA: 16140

LOCATION

York Avenue over US Hwy 20

Buchanan County, Iowa

S: 1 T: 88N R: 7W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 87

total length:258

roadway wdt: 30.3

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrail

This 258' by 30' bridge carries York Avenue over US 20 east of Winthrop. The four span bridge has two 86'6" center spans and 40'9" end spans. The bridge has reinforced concrete piers that support pretensioned, prestressed concrete beams and cast-in-place decking. The piers have creosoted wood piling; while the abutments have steel piles. The bridge was designed by the ISHC in November 1968 as part of the relocation and expansion of U.S. Highway 20 from two to four lanes.

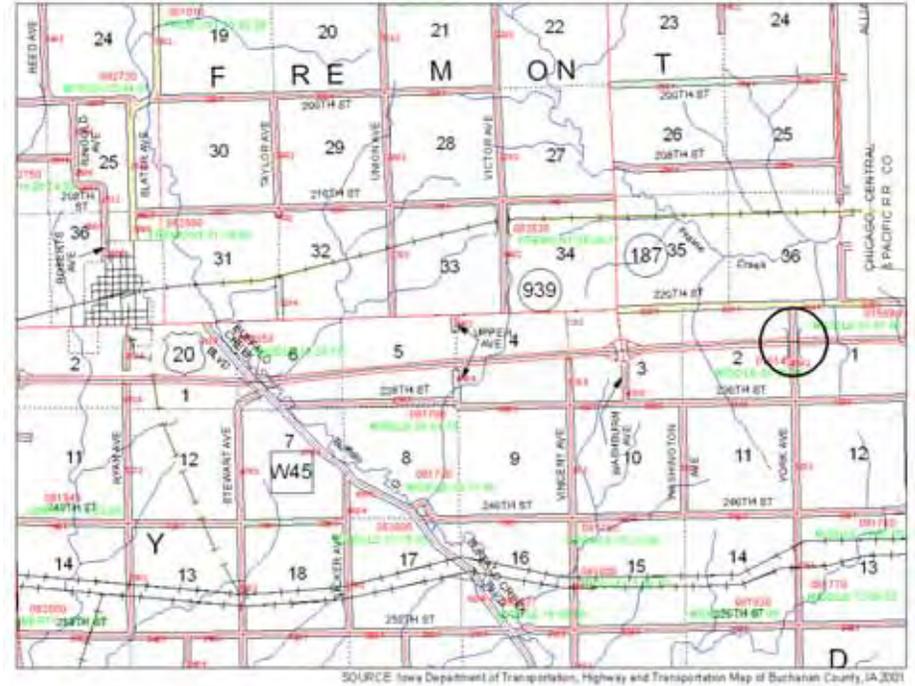
Development of U.S. Highway 20 proceeded westward towards Waterloo. Plans for the continued relocation of the highway were announced in the ISHC 1967-1974 highway construction program (*Independence Bulletin Journal*, December 30, 1966:4). On June 8, 1967, ISHC held a hearing in Waterloo to outline the proposed route of the Highway 20 from Highway 13 in Delaware County to Waterloo. The \$32.6 million project received approval from most cities along the route (*Waterloo Daily Courier*, June 9, 1967:2). Preliminary design of the highway in Buchanan County wasn't started until June 1969 (*Cedar Rapids Gazette*, June 26, 1969:36). By April 1970, bridges were nearly complete and grading was progressing on the new four-lane highway in western Delaware County. However, hearings were still being conducted on a nearly 6-mile stretch of the highway to the east between Manchester and Delaware in Delaware County (*Independence Bulletin-Journal*, April 10, 1970). Work on this section was let in March 1972. It wasn't until November 15, 1974 that the new freeway was completed from Dubuque to IA Highway 187 in far eastern Buchanan County. The 16.2 mile section of freeway through Delaware and Buchanan Counties cost \$11 million (*Waterloo Courier*, November 14, 1974:11).

The York Avenue Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use in the neighboring town of Earlville or indeed any of the small towns along the new corridor. While the highway certainly changed the land use of property in the path of its construction, most of the development in towns along the corridor experienced growth all sides, not just in the vicinity of the new highway. In Winthrop, aerial photographs from the 1960s, and 1990s show very little commercial and residential growth during the period. Very little substantial growth occurred along the highway. Manchester saw even commercial and residential growth on all sides of town. A small industrial park developed on the southwest side of town, near the relocated highway. Mason saw little if any growth during the period. Given these facts, LBG concludes that the York Avenue Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Earlville or Manchester. The bridge does not meet any of the other registration requirements for Type 502 bridges. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

York Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 16140; Design for 254'x30' Pretensioned, Prestressed Concrete Beam Bridge; *Independence Bulletin Journal* 1966-1970; *Waterloo Daily Courier* 1967-1974; *Cedar Rapids Gazette* 1969

Inventoried By:

Patti Kuhn

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

CR F44 Bridge

FHWA: 18490

LOCATION

CR F44 over Cedar River

Cedar County, Iowa

S: 2 T: 79N R: 3W

DATE(S) OF CONSTRUCTION

1948

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 8

span length: 154

total length: 1145

roadway wdt: 26.2

OWNER:

Cedar County

superstructure: Steel Continuous Girder & Floorbeam

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

Carrying Old Iowa 979 (now CR F44 / 290th Street) over the Cedar River in Rochester, this eight-span 1,145' by 26' bridge was constructed in 1948. The bridge has concrete piers that support steel continuous girders and floorbeams. Bids for the new bridge were opened on December 10, 1946 (*Burlington Hawk-eye Gazette* Nov. 22, 1946:1). A bid for \$290,396.43 from the Amos Mellberg Co. of Cedar Rapids was approved by the ISHC on April 16, 1947 (*Iowa City Press-Citizen* April 16, 1947:1). On May 4, a section the existing iron truss bridge at Rochester collapsed after a truck passed over the span (*Tipton Advertiser* May 6, 1948:1). This sped up completion of the new bridge and by late November 1948, the bridge was completed and opened to traffic in January 1949 (*Iowa City Press-Citizen* November 23, 1948:1). In 1984, the concrete deck was replaced and the steel members were cleaned and painted.

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970 as a large bridge of exceptional span or overall length that are "in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective." The CR F44 Bridge is a steel continuous girder and floorbeam bridge (Type 403) that is in the 95th percentile in main span length. The 95th percentile for Type 403 bridges is 154', which is length of the six main spans of the CR F44 Bridge. The bridge does represent a major engineering effort as it was the earliest Type 403 bridge to exceed 150' in span length; and thus, does meet the registration requirements under Criterion C.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 30 Mississippi River Bridge

FHWA: 20860

LOCATION

US 30 over Mississippi River

Clinton County, Iowa

S: 7 T: 81N R: 7E

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion A and C)

CONDITION

Good

span number: 1

span length: 644

total length:4165

roadway wdt: 26

OWNER:

Iowa Department of Transportation

superstructure: Steel Suspension

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Steel suspension

This 4,165' by 26' steel suspension bridge carries State Highway 30 from Clinton, Iowa across the Mississippi River into Illinois. Concrete piers and a steel superstructure support a cast-in-place concrete deck. The crossing has 15 approach spans on the west side (6 beam spans and 9 girder spans) and 14 approach spans in the east side, all of which are girder spans. The longest span over the Mississippi River is a 644' long steel suspension structure, the main cables of which are 8" in diameter and 1,400' long.

In 1944, an act of the U.S. Congress authorized the organization of the City of Clinton Bridge Commission to supervise the planning, financing and construction of a new bridge across the Mississippi. The first meeting of the seven-man board was held on April 5, 1945. Traffic counts and surveys were conducted in 1945, 1946, and 1953 to gather information in support of the financing and potential location of the new bridge. The Iowa Highway Commission contracted Modjeski and Masters of Mechanicsburg, Pennsylvania to design the bridge. Plans were drawn up in 1951 and finalized in January 1954. Work on the bridge began on September 21, 1954. Allied Structural Steel Companies of Clinton provided the steel for the bridge. The bridge was completed on June 30, 1956. The total cost of the bridge was \$6.8 million. In 1976, repairs were made to the west abutment and four piers on the west side of the bridge.

The bridge was included in the Phase II survey as it is a large of exceptional span or overall length, which according to the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970 includes any steel suspension bridge. The steel suspension bridge is the only one of its type (Type 313) built in the state. As such, the U.S. 30 Mississippi River Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet several registration requirements outlined in the MPDF Highway Bridges in Iowa: 1942-1970 for bridges under Criterion C as a large exceptional span, as an exceptional example of work by an important engineer such as Modjeski and Masters; and under Criterion A as a bridge that was built as part of a large bridge building initiative.

NAME(S) OF STRUCTURE

US 30 Mississippi River Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Gateway Bridge, Crossing the Mississippi River at Clinton, Iowa, City of Clinton Bridge Commission, June 30, 1956.

Coverdale and Colpitts, *Traffic Study of Mississippi River Crossing at Clinton, Iowa*, July 9, 1954. Blueprints, City of Clinton Bridge Commission, 1954.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 20 Westbound Bridge

FHWA: 23110

LOCATION

US 20 Westbound SE of Earlville

S: 31 T: 89N R: 3W

Delaware County, Iowa

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 52

total length:158

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete girder, concrete guardrails

This 158' by 30' pretensioned, prestressed concrete beam bridge carries westbound US 20 southeast of Earlville. The structure has a 52' center span and two 51'5" end spans. Concrete piers are supported by concrete pilings; while the concrete abutments have steel pilings. The channel of Plum Creek was diverted and channelized for the crossing. The bridge was designed in January 1963 by the ISHC. In 2007, repairs were made to the bridge floor and approaches and the guard rail was replaced.

In 1960, the ISHC announced the relocation of US 20 in the eastern part of Delaware County in their five-year construction plan for fiscal years 1961-1965 (*Cedar Rapids Gazette* December 25, 1960:1). The highway was relocated from IA Highway 38 to two miles east of Dyersville. Bids for the relocation were let on August 14, 1963. Work on bridges and culverts for the relocation were awarded to three firms: J. C. Costigan of Elkader, C. B. Taylor of Decorah, and F. A. Moser Inc. of Farmersburg (*Cedar Rapids Gazette* August 14, 1963:3D). The highway was opened to traffic on November 13, 1964 (*Waterloo Daily Courier* 1964:9). The bypass was designed to be a safer route than the narrow Highway 20. At the same time, other sections of old highway 20 were being widened to accommodate "long" trucks, which were trucks longer than 50'. In 1963, the Iowa Legislature banned long trucks on roads that were less than 22' wide. By the end of the year, only two segments of narrow roads remained, one of which was east of Manchester (*Des Moines Register* January 29, 1964:5).

The US 20 Westbound Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use in the neighboring town of Earlville or indeed any of the small towns along the new corridor. While the highway certainly changed the land use of property in the path of its construction, most of the development in towns along the corridor experienced growth all sides, not just in the vicinity of the new highway. In Earlville, aerial photographs from the 1960s, and 1990s show that very little commercial development occurred along the highway. Previously platted blocks filled in during the period and only small areas of residential growth occurred on the north and south sides of town. Manchester saw even commercial and residential growth on all sides of town. A small industrial park developed on the southwest side of town, near the relocated highway. Mason saw little if any growth during the period. Given these facts, LBG concludes that the US 20 Westbound Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Earlville or Manchester. The bridge does not meet any of the other registration requirements for Type 502 bridges. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
US 20 Westbound Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for 155' x 30' Pretensioned, Prestressed Concrete Beam Bridge, ISHC, January 1963; *Cedar Rapids Gazette* 1960-63; *Waterloo Daily Courier* 1964; *Des Moines Register* 1964.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

110th Avenue Bridge

FHWA: 23370

LOCATION

100th Ave. over US 20

Delaware County, Iowa

S: 6 T: 88N R: 6W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 85

total length:270

roadway wdt: 30

OWNER:

Delaware County

superstructure: Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel I-girder, concrete guardrail.

This 270' by 30' concrete bridge with carries 110th Avenue over US 20 southeast of Mason. The four-span bridge has two 85'6" interior spans and 47'6" end spans. Reinforced concrete piers support a substructure of continuous welded I-girder bridge with diaphragms. Both the piers and abutments have creosoted wood piling. The decking is cast-in-place concrete. The bridge was designed in October 1968 by the ISHC as part of the relocation and expansion of U.S. Highway 20 from two to four lanes.

In 1969, the Iowa State Highway Commission let contracts for a six and one-half mile stretch of the new four-lane Highway 20 (then known as Highway 520) from the Buchanan County line east into Delaware County. Contracts for all of the bridge and culvert construction for the new freeway was given to Schmidt Construction Company of Winfield, Iowa for \$288,000 (*Waterloo Daily Courier* 1969:20). Development of U.S. Highway 20 proceeded westward towards Waterloo. Plans for the continued relocation of the highway were announced in the ISHC 1967-1974 highway construction program (*Independence Bulletin Journal*, December 30, 1966:4). On June 8, 1967, ISHC held a hearing in Waterloo to outline the proposed route of the Highway 20 from Highway 13 in Delaware County to Waterloo. The \$32.6 million project received approval from most cities along the route (*Waterloo Daily Courier*, June 9, 1967:2). Preliminary design of the highway in Buchanan County wasn't started until June 1969 (*Cedar Rapids Gazette*, June 26, 1969:36). By April 1970, bridges were nearly complete and grading was progressing on the new four-lane highway in western Delaware County. However, hearings were still being conducted on a nearly 6-mile stretch of the highway to the east between Manchester and Delaware in Delaware County (*Independence Bulletin-Journal*, April 10, 1970). Work on this section was let in March 1972. It wasn't until November 15, 1974 that the new freeway was completed from Dubuque to IA Highway 187 in far eastern Buchanan County. The 16.2 mile section of freeway through Delaware and Buchanan Counties cost \$11 million (*Waterloo Courier*, November 14, 1974:11).

The 110th Avenue Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use in the neighboring town of Earlville or indeed any of the small towns along the new corridor. While the highway certainly changed the land use of property in the path of its construction, most of the development in towns along the corridor experienced growth all sides, not just in the vicinity of the new highway. In Earlville, aerial photographs from the 1960s, and 1990s show that very little commercial development occurred along the highway. Previously platted blocks filled in during the period and only small areas of residential growth occurred on the north and south sides of town. Manchester saw even commercial and residential growth on all sides of town. A small industrial park developed on the southwest side of town, near the relocated highway. Mason saw little if any growth during the period. Given these facts, LBG concludes that the 110th Avenue Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Earlville, Mason, or Manchester. The bridge does not meet any of the other registration requirements for Type 423 bridges. The bridge does not meet any of the other registration requirements for Type 423 bridges.

NAME(S) OF STRUCTURE

110th Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for 266'x30' Continuous Welded Girder Bridge, ISHC, October 1968; *Waterloo Daily Courier* 1967-1974; *Independence Bulletin Journal* 1966-1970; *Cedar Rapids Gazette* 1969

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

140th Avenue Bridge

FHWA: 23380

LOCATION

140th Avenue over US 20

Delaware County, Iowa

S: 3 T: 88N R: 6W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 87

total length:258

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete girder, concrete guardrails

This 258' by 30' concrete bridge carries 140th Avenue over US 20 south of the Manchester Municipal Airport. The four span bridge has two 86'6" interior spans and 40'9" end spans. Reinforced concrete piers support a prestressed concrete beams and cast-in-place concrete decking. The bridge was designed in April 1969 by the ISHC as part of the relocation and expansion of U.S. Highway 20 from two to four lanes.

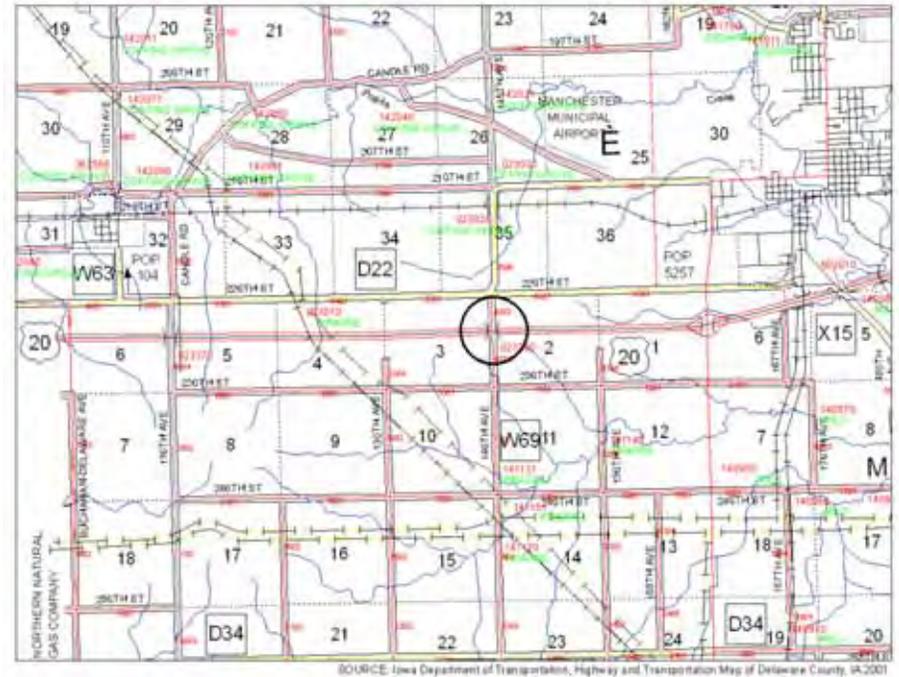
In 1969, the Iowa State Highway Commission let contracts for a six and one-half mile stretch of the new four-lane Highway 20 (then known as Highway 520) from the Buchanan County line east into Delaware County. Contracts for all of the bridge and culvert construction for the new freeway was given to Schmidt Construction Company of Winfield, Iowa for \$288,000 (*Waterloo Daily Courier* 1969:20). Development of U.S. Highway 20 proceeded westward towards Waterloo. Plans for the continued relocation of the highway were announced in the ISHC 1967-1974 highway construction program (*Independence Bulletin Journal*, December 30, 1966:4). On June 8, 1967, ISHC held a hearing in Waterloo to outline the proposed route of the Highway 20 from Highway 13 in Delaware County to Waterloo. The \$32.6 million project received approval from most cities along the route (*Waterloo Daily Courier*, June 9, 1967:2). Preliminary design of the highway in Buchanan County wasn't started until June 1969 (*Cedar Rapids Gazette*, June 26, 1969:36). By April 1970, bridges were nearly complete and grading was progressing on the new four-lane highway in western Delaware County. However, hearings were still being conducted on a nearly 6-mile stretch of the highway to the east between Manchester and Delaware in Delaware County (*Independence Bulletin-Journal*, April 10, 1970). Work on this section was let in March 1972. It wasn't until November 15, 1974 that the new freeway was completed from Dubuque to IA Highway 187 in far eastern Buchanan County. The 16.2 mile section of freeway through Delaware and Buchanan Counties cost \$11 million (*Waterloo Courier*, November 14, 1974:11).

The 140th Avenue Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use in the neighboring town of Earlville or indeed any of the small towns along the new corridor. While the highway certainly changed the land use of property in the path of its construction, most of the development in towns along the corridor experienced growth all sides, not just in the vicinity of the new highway. In Earlville, aerial photographs from the 1960s, and 1990s show that very little commercial development occurred along the highway. Previously platted blocks filled in during the period and only small areas of residential growth occurred on the north and south sides of town. Manchester saw even commercial and residential growth on all sides of town. A small industrial park developed on the southwest side of town, near the relocated highway. Mason saw little if any growth during the period. Given these facts, LBG concludes that the 140th Avenue Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Earlville or Manchester. The bridge does not meet any of the other registration requirements for Type 502 bridges. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

140th Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for 254' x30' Pretensioned, Prestressed Concrete Beam Bridge, ISHC, April 1969; *Waterloo Daily Courier* 1967-1974; *Independence Bulletin Journal* 1966-1970; *Cedar Rapids Gazette* 1969

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Central Avenue Bridge

FHWA: 23620

LOCATION

Central Avenue over US 34

Des Moines County, Iowa

S: 32 T: 70N R: 2W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 years of age)

CONDITION

Good

span number: 2

span length: 72

total length:144

roadway wdt: 54.1

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features:

Carrying Central Avenue over US 34 in Burlington, this two-span 144' by 54' pretensioned, prestressed concrete beam bridge was built as part of the Highway 34 relocation in downtown Burlington. Concrete piers support concrete beams and concrete cast-in-place decking. The pier is on a concrete foundation; while the abutments are supported with steel pilings. The two spans measure 72' 5" and 68' 3" long. The bridge was designed by Sverdrup & Parcel and Associates, Inc. of St. Louis for the Iowa State Highway Commission in September 1969.

Plans for the relocation of U.S. Highway 34 through Burlington were announced by the ISHC on November 11, 1965. The new four-lane "superhighway" would run from the MacArthur Bridge in downtown Burlington to ¼ miles west of West Burlington. At that time the ISHC estimated the project would cost \$5-8 million. Reasons for the relocation were to provide quick access to downtown, relieve congestion in several areas along the original route, to provide a link between downtown and shopping areas near Roosevelt Avenue (*The Hawk Eye*, Nov. 11, 1965:1). ISHC Vice-Chairman, Derby Thompson of Burlington, was the main champion of the highway project, which prompted ire from other communities with no freeways. The routing of the highway through the historic North Hill neighborhood was the chief complaint of local residents, who preferred a bypass around the city (*The Hawk Eye*, Dec. 3, 1965:2). Burlington Mayor, Carl Hoschek, did not approve the highway plan until October 30, 1967 (*The Hawk Eye*, Nov. 9, 1976:3). Many of the residences in the North Hill area were large 19th century mansions. Though bids for demolition were taken in August 1968, demolitions did not begin until March 1969 (*The Hawk Eye*, August 14, 1968:1). Construction began in November 1969. Large areas of rock had to be blasted out west of 6th Street before grading could begin. Bids for bridges and structures were taken in January 1970. The overpass bridges on 4th and 5th Street were opened in early January 1971 to no fanfare. Indeed, only a Hawk Eye reporter and his wife marked the occasion by taking a "brisk stroll" across the opened bridges (*The Hawk Eye*, Jan. 6, 1971:3). The first section of the freeway, from the bridge and Central Avenue wasn't open until February 2, 1974, much of the delay caused by contentious right of way acquisitions (*The Hawk Eye*, Nov. 9, 1976:3). The second segment of the route, from Central to Roosevelt Avenue was opened on June 13, 1975 with a ribbon cutting ceremony beneath a bridge, which served as shelter from a heavy downpour (*The Hawk Eye*, Nov. 9, 1976:3). On November 10, 1976, eleven years after the project was first proposed, the entire length of the highway was open. Two busloads of local and state officials including former ISHC Vice-Chairman Derby Thompson, traveled the \$26 million, 5.5 mile freeway to a ribbon cutting ceremony downtown.

The Central Avenue Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 34 through Burlington. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 34 relocation does not appear to have been the direct cause of significant development or major changes in land use in Burlington. While the highway certainly changed the land use of property in the path of its construction, it appears that the artery had little effect on adjacent property. However, aerial photographs from the 1950s, 1960s, and 1990s show large commercial developments on the north, west, and south west sides of West Burlington. The Great River Medical Center and Southeastern College at Burlington were constructed along W. Agency Road along with other large commercial and industrial businesses. Westland Mall was constructed on the east side of Gear Ave. north of the new highway. The intersection with US Highway 61 also saw commercial development. Given these facts, LBG concludes that the Central Avenue Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in West Burlington. The bridge does not meet any of the other registration requirements for Type 502 bridges. However, the bridge is less than 50 years of age and does not possess characteristics of exceptional importance as thus does not meet Criteria Consideration G. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

Central Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design 140' x 54' Pretensioned, Prestressed Concrete Beam Bridge, Des Moines County, Sverdrup & Parcel and Associates, Inc., September 1969. *Burlington Hawk-Eye* 1965-1976.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

5th Street Bridge

FHWA: 23650

LOCATION

5th Street over US 34

Des Moines County, Iowa

S: 33 T: 70N R: 2W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 years of age)

CONDITION

Good

span number: 4

span length: 61

total length:232

roadway wdt: 42

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features:

Carrying 5th Street over US 34 in Burlington, this four-span 232' by 42' pretensioned, prestressed concrete beam bridge was built as part of the Highway 34 relocation in downtown Burlington. Concrete piers and abutments support concrete beams and concrete cast-in-place decking. The piers are supported by concrete footings; while the abutments are supported with steel pilings. The two center spans measure 60' 8" long. The approach spans measure 47' 5" and 59' 11" long. The bridge was designed by Sverdrup & Parcel and Associates, Inc. of St. Louis for the Iowa State Highway Commission in November 1969.

Plans for the relocation of U.S. Highway 34 through Burlington were announced by the ISHC on November 11, 1965. The new four-lane "superhighway" would run from the MacArthur Bridge in downtown Burlington to ¾ miles west of West Burlington. At that time the ISHC estimated the project would cost \$5-8 million. Reasons for the relocation were to provide quick access to downtown, relieve congestion in several areas along the original route, to provide a link between downtown and shopping areas near Roosevelt Avenue (*The Hawk Eye*, Nov. 11, 1965:1). ISHC Vice-Chairman, Derby Thompson of Burlington, was the main champion of the highway project, which prompted ire from other communities with no freeways. The routing of the highway through the historic North Hill neighborhood was the chief complaint of local residents, who preferred a bypass around the city (*The Hawk Eye*, Dec. 3, 1965:2). Burlington Mayor, Carl Hoschek, did not approve the highway plan until October 30, 1967 (*The Hawk Eye*, Nov. 9, 1976:3). Many of the residences in the North Hill area were large 19th century mansions. Though bids for demolition were taken in August, demolitions did not begin until March 1969 (*The Hawk Eye*, August 14, 1968:1). Construction began in November 1969. Large areas of rock had to be blasted out west of 6th Street before grading could begin. Bids for bridges and structures were taken in January 1970. The overpass bridges on 4th and 5th Street were opened in early January 1971 to no fanfare. Indeed, only a Hawk Eye reporter and his wife marked the occasion by taking a "brisk stroll" across the opened bridges (*The Hawk Eye*, Jan. 6, 1971:3). The first section of the freeway, from the bridge and Central Avenue wasn't open until February 2, 1974, much of the delay caused by contentious right of way acquisitions (*The Hawk Eye*, Nov. 9, 1976:3). The second segment of the route, from Central to Roosevelt Avenue was opened on June 13, 1975 with a ribbon cutting ceremony beneath a bridge, which served as shelter from a heavy downpour (*The Hawk Eye*, Nov. 9, 1976:3). On November 10, 1976, eleven years after the project was first proposed, the entire length of the highway was open. Two busloads of local and state officials including former ISHC Vice-Chairman Derby Thompson, traveled the \$26 million, 5.5 mile freeway to a ribbon cutting ceremony downtown.

The 5th Street Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 34 through Burlington. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 34 relocation does not appear to have been the direct cause of significant development or major changes in land use in Burlington. While the highway certainly changed the land use of property in the path of its construction, it appears that the artery had little effect on adjacent property. However, aerial photographs from the 1950s, 1960s, and 1990s show large commercial developments on the north, west, and south west sides of West Burlington. The Great River Medical Center and Southeastern College at Burlington were constructed along W. Agency Road along with other large commercial and industrial businesses. Westland Mall was constructed on the east side of Gear Ave. north of the new highway. The intersection with US Highway 61 also saw commercial development. Given these facts, LBG concludes that the 5th Street Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in West Burlington. The bridge does not meet any of the other registration requirements for Type 502 bridges. However, the bridge is less than 50 years of age and does not possess characteristics of exceptional importance as outlined in the registration requirements; hence, the structure does not meet Criteria Consideration G. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

5th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design 228' x 42' Pretensioned, Prestressed Concrete Beam Bridge, Des Moines County, Sverdrup & Parcel and Associates, Inc., November 1969.
Burlington Hawk-Eye 1965-1976.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 20 Bridge

FHWA: 23780

LOCATION

US Hwy 20 over Maquoketa River

S: 31 T: 89N R: 2W

Dubuque County, Iowa

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible, Criterion A

CONDITION

Good

span number: 5

span length: 109

total length:502

roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Box Beam or Girder-multi

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete box beam / girders

This 502' by 28' bridge carries westbound US 20 south of Dyersville. Prestressed concrete box girders support cast-in-place concrete decking. The five-span bridge has a three 109' center spans and 85'6" approach spans. The concrete piers have untreated wood piles; while the abutments have creosoted wood piles. A large bend in the Maquoketa River was channelized for bridge crossing. The structure was designed by the ISHC in May 1957.

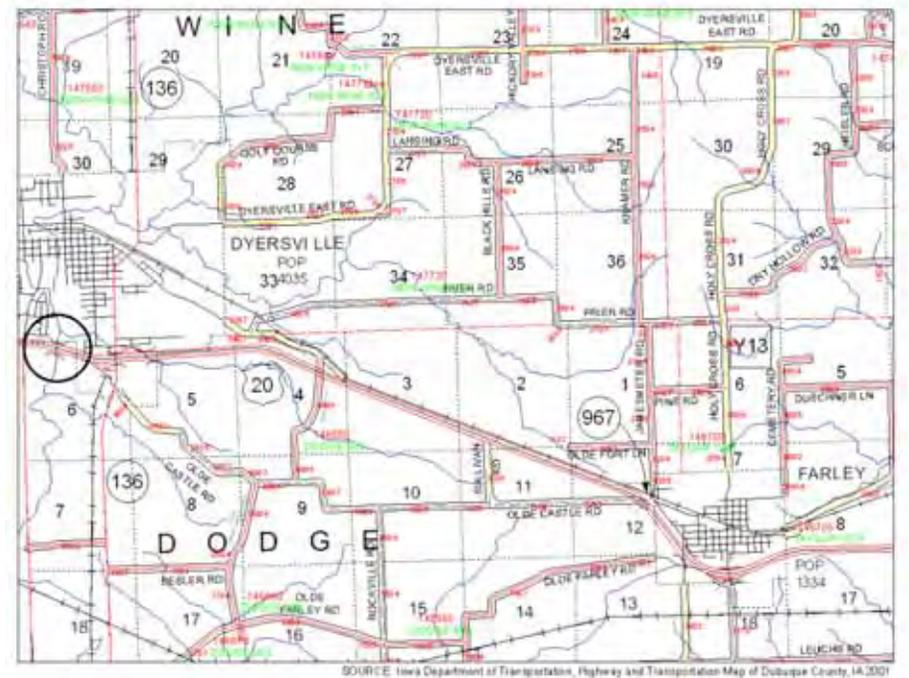
As early as 1955, the Iowa Highway Commission proposed to relocate U.S. Highway 20 between Dyersville and Center Grove, located just west of Dubuque. The 22 mile long highway was located south of the existing Highway 20 bypassing the towns of Centralia, Epworth, and Farley (*Dubuque Telegraph-Herald* Aug. 16, 1959:1). The bypass was designed to be a safer route than the narrow Highway 20 that had numerous dangerous curves. The eastern 3.6 miles of the route had four lanes of traffic; while the remaining route had two lanes. John P. Abrahamson Construction Company of Des Moines and J. C. Costigan Construction Company of Elkader constructed the bridges along the bypass route (*Dubuque Telegraph-Herald* Dec. 22, 1957:1). By July 20, 1958, all of the bridges along the bypass were complete (*Dubuque Telegraph-Herald* July 20, 1958:28). The highway was opened to traffic on August 31, 1959 (*Cedar Rapids Gazette*, August 31, 1959:9). At the time of completion, extension of the four lane route into Dubuque was already being planned (*Dubuque Telegraph-Herald* Aug. 16, 1959:1).

The US Highway 20 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 through Dubuque County. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does appear to have been the direct cause of significant development or major changes in land use in three towns along the route: Epworth, Farly, and Dyersville. While the highway certainly changed the land use of property in the path of its construction, it appears that the artery substantially increased each town by approximately 30%. All three towns experienced residential growth, including a large residential development on the north side of the highway in Dyersville. Aerial photographs from the 1950s, 1960s, and 1990s show large commercial developments on the south side of Dyersville, as well as a high school, medical center, and golf course. A seminary was also built in Epworth after the highway was relocated. Given these facts, LBG concludes that the US Highway 20 Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dyersville. The bridge does not meet any of the other registration requirements for Type 505 bridges. The bridge does not meet any of the other registration requirements for Type 505 bridges.

NAME(S) OF STRUCTURE

US Hwy 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design For 498'x28' Continuous Concrete Box Girder Bridge, ISHC, May 1957; *Dubuque Telegraph-Herald* 1957-1959; *Cedar Rapids Gazette* 1959.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US Hwy 20 Bridge

FHWA: 23820

LOCATION

US Hwy 20 over S. Fork Catfish Creek

S: 31 T: 89N R: 2E

Dubuque County, Iowa

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 56

total length: 146

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: 30 degree skew

Carrying US 20 over the South Fork of Catfish Creek west of Dubuque, this three-span 146' by 28' pretensioned, prestressed concrete beam bridge was built as part of the Highway 20 relocation route between Farley and Dubuque. Concrete piers support concrete beams and concrete cast-in-place decking. The piers are on a concrete foundation; while the abutments are supported with steel pilings. The center span is 56' long; while the approach spans are 43' long. The channel of the South Fork of Catfish Creek was straightened in an east/west direction for the new bridge crossing. The bridge was designed by the Iowa State Highway Commission in June 1957.

As early as 1955, the Iowa Highway Commission proposed to relocate U.S. Highway 20 between Dyersville and Center Grove, located just west of Dubuque. The 22 mile long highway was located south of the existing Highway 20 bypassing the towns of Centralia, Epworth, and Farley (*Telegraph-Herald* Aug. 16, 1959:1). The bypass was designed to be a safer route than the narrow Highway 20 that had numerous dangerous curves. The eastern 3.6 miles of the route had four lanes of traffic; while the remaining route had two lanes. John P. Abrahamson Construction Company of Des Moines and J. C. Costigan Construction Company of Elkader constructed the bridges along the bypass route (*Telegraph-Herald* Dec. 22, 1957:1). By July 20, 1958, all of the bridges along the bypass were complete (*Telegraph-Herald* July 20, 1958:28). The highway was opened to traffic on August 31, 1959 (*Cedar Rapids Gazette*, August 31, 1959:9). At the time of completion, extension of the four lane route into Dubuque was already being planned (*Telegraph-Herald* Aug. 16, 1959:1).

The EB US Hwy 20 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use on the western side of Dubuque. While the highway certainly changed the land use of property in the path of its construction, most of the development in the area appears to have concentrated along the NW Arterial, built sometime after the highway relocation. Large tracts of residential properties are located on either side of the arterial. Comparatively, only two residential areas developed along Highway 20. Commercial development to a limited degree located along the highway, especially in the vicinity of Cascade Road. However, the development was not substantial. Given these facts, LBG concludes that the EB US Hwy 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dubuque. The bridge does not meet any of the other registration requirements for Type 502 bridges. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

EB US Hwy 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for Twin 142'x28' Pretensioned, Prestressed Concrete Beam Bridges, ISHC, June 1957; *Dubuque Telegraph-Herald* 1957-1959; *Cedar Rapids Gazette* 1959.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US Hwy 20 Bridge

FHWA: 23830

LOCATION

US Hwy 20 over S. Fork Catfish Creek

S: 31 T: 89N R: 2E

Dubuque County, Iowa

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 56

total length: 146

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features:

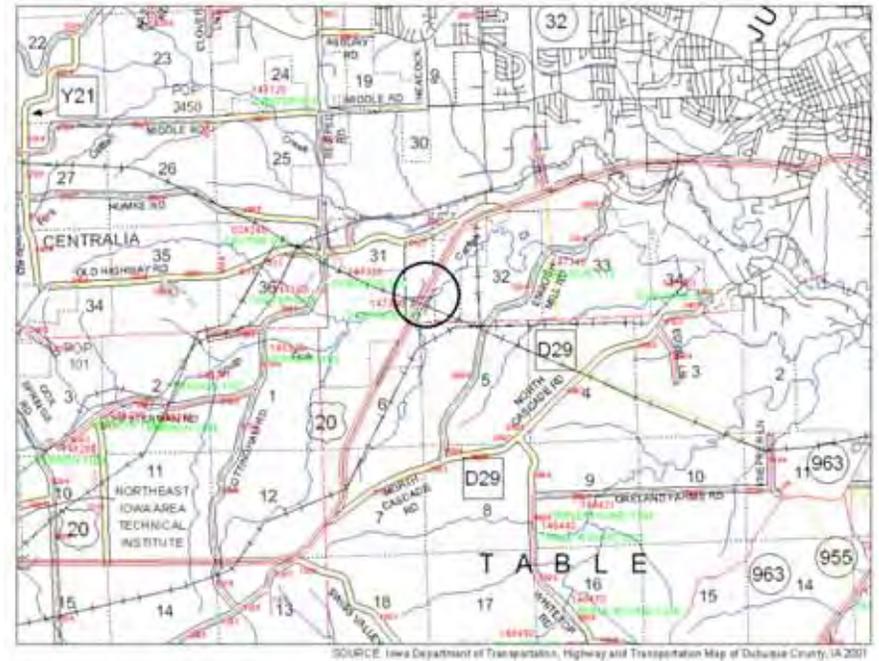
Carrying US 20 over the South Fork of Catfish Creek west of Dubuque, this three-span 146' by 28' pretensioned, prestressed concrete beam bridge was built as part of the Highway 20 relocation route between Farley and Dubuque. Concrete piers support concrete beams and concrete cast-in-place decking. The piers are on a concrete foundation; while the abutments are supported with steel pilings. The center span is 56' long; while the approach spans are 43' long. The channel of the South Fork of Catfish Creek was straightened in an east/west direction for the new bridge crossing. The bridge was designed by the Iowa State Highway Commission in June 1957.

As early as 1955, the Iowa Highway Commission proposed to relocate U.S. Highway 20 between Dyersville and Center Grove, located just west of Dubuque. The 22 mile long highway was located south of the existing Highway 20 bypassing the towns of Centralia, Epworth, and Farley (*Telegraph-Herald* Aug. 16, 1959:1). The bypass was designed to be a safer route than the narrow Highway 20 that had numerous dangerous curves. The eastern 3.6 miles of the route had four lanes of traffic; while the remaining route had two lanes. John P. Abrahamson Construction Company of Des Moines and J. C. Costigan Construction Company of Elkader constructed the bridges along the bypass route (*Telegraph-Herald* Dec. 22, 1957:1). By July 20, 1958, all of the bridges along the bypass were complete (*Telegraph-Herald* July 20, 1958:28). The highway was opened to traffic on August 31, 1959 (*Cedar Rapids Gazette*, August 31, 1959:9). At the time of completion, extension of the four lane route into Dubuque was already being planned (*Telegraph-Herald* Aug. 16, 1959:1).

The WB US Hwy 20 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 20 from Dubuque to Waterloo. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 20 relocation does not appear to have been the direct cause of significant development or major changes in land use on the western side of Dubuque. While the highway certainly changed the land use of property in the path of its construction, most of the development in the area appears to have concentrated along the NW Arterial, built sometime after the highway relocation. Large tracts of residential properties are located on either side of the arterial. Comparatively, only two residential areas developed along Highway 20. Commercial development to a limited degree located along the highway, especially in the vicinity of Cascade Road. However, the development was not substantial. Given these facts, LBG concludes that the WB US Hwy 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dubuque. The bridge does not meet any of the other registration requirements for Type 502 bridges. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
WB US Hwy 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for Twin 142'x28' Pretensioned, Prestressed Concrete Beam Bridges, ISHC, June 1957; *Dubuque Telegraph-Herald* 1957-1959; *Cedar Rapids Gazette* 1959.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 61 Bridge

FHWA: 23940

LOCATION

US Hwy 61 over Catfish Creek & RR

Dubuque County, Iowa

S: 6 T: 88N R: 3E

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 99

total length:352

roadway wdt: 56.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel I-girder, concrete guardrail

Carrying US 61 over the Catfish Creek and the Illinois Central RR near Rockdale, this four-span 352' by 56' continuous steel I-beam bridge was built as part of the Highway 151/61 relocation route south of Dubuque. Concrete piers support continuous I-beams and concrete cast-in-place decking. Pier #1 is on steel pilings; while piers #2 and #3 and the abutments are supported with creosoted pilings. The two central spans are 99' long; while the approach spans are 77' long. The bridge is set at a 32 degree skew. The bridge was designed by Lechner Engineering in August 1955. In 1977, the south abutment wall was replaced, bridge floor was repaired, and treat plates were replaced at expansion devices. In 1985, the abutment backwalls and superstructure slab were replaced and an expansion device was installed.

On April 4, 1956, grading and bridge construction contracts for the "superhighway" from Southern Avenue in Dubuque to the small community of Key West located south of Dubuque were let by the ISHC. The \$278,898 contract for construction of the bridge over Catfish Creek and the then Illinois Central Railroad was given to Alfred Olson Company of Waterloo (*Dubuque Telegraph Herald*, April 5, 1956:1). Grading began later that month. Construction of the highway continued into 1957, when plans were announced for an extension of the highway through Key West to the Highway 151 junction (*Dubuque Telegraph Herald* June 5, 1957:12).

The US Hwy 61 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 61 from Southern Avenue in Dubuque to Key West. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 61 relocation does not appear to have been the direct cause of significant development or major changes in land use on the southern side of Dubuque. While the highway certainly changed the land use of property in the path of its construction, most of the development in the area appears to have been limited, concentrated at the junction of Highway 61 and 52. Several subdivisions developed on either side of the new highway in the 1960s. A large trailer park was built in 1978. It wasn't until after the 1990s that an industrial park was developed along the southern end of the new highway. Commercial development to a limited degree was located along the highway, especially in the vicinity of US Highway 52. However, the development was not substantial. Given these facts, LBG concludes that the US Hwy 61 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dubuque. The bridge does not meet any of the other registration requirements for Type 402 bridges. The bridge does not meet any of the other registration requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

US Hwy 61 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design For 351'x56' Cont. I-BM Bridge and Overhead Crossing, Lechner Engineering, August 1955; *Dubuque Telegraph Herald*, 1955-1957.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Grandview Bridge

FHWA: 23950

LOCATION

Grandview over US Hwy 52

S: 31 T: 89N R: 3E

Dubuque County, Iowa

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 1

span length: 70

total length:73

roadway wdt: 44.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Stringer/Beam/Girder

substructure: Concrete abutments

floor/decking: Concrete Cast-in-place

other features: Pedestrian walkway with chain link barrier

This single-span 73' by 44' steel girder bridge carries Grandview Avenue over US Hwy. 52 in Dubuque and was built as part of the Highway 52 relocation route through town. The bridge has concrete abutments, concrete wingwalls, and a concrete, cast-in-place deck. Pedestrian walkways with chain link barriers are on both sides of the bridge. The bridge was designed by the ISHC in November 1955. In 1979, repairs were made to the bridge floor and concrete barrier ends. In 1983, concrete on the sidewalks was replaced.

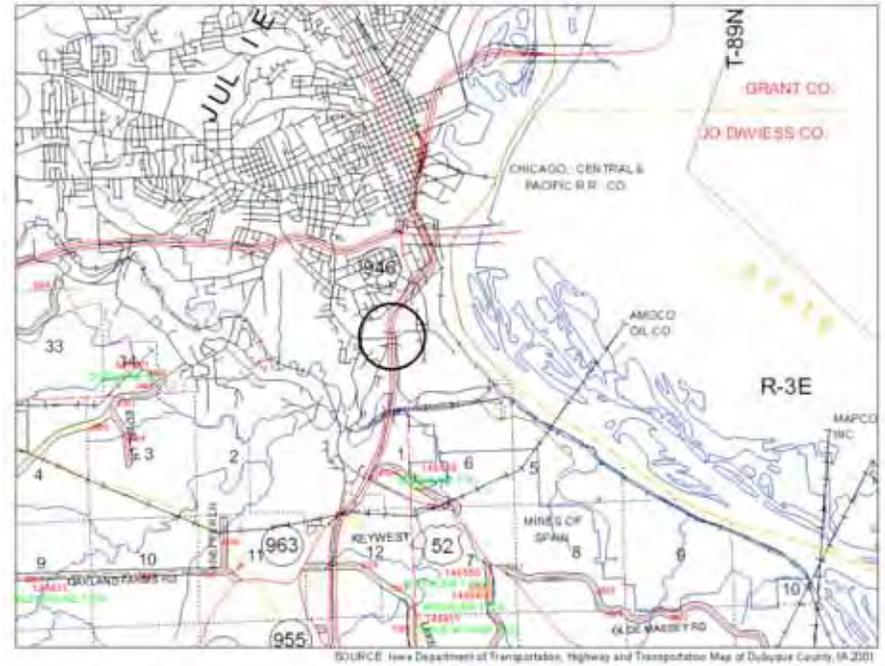
On April 4, 1956, grading and bridge construction contracts for the "superhighway" from Southern Avenue in Dubuque to the small community of Key West located south of Dubuque were let by the ISHC. The \$278,898 contract for construction of the bridge over Catfish Creek and the then Illinois Central Railroad was given to Alfred Olson Company of Waterloo (*Dubuque Telegraph Herald*, April 5, 1956:1). Grading began later that month. Construction of the highway continued into 1957, when plans were announced for an extension of the highway through Key West to the Highway 151 junction (*Dubuque Telegraph Herald* June 5, 1957:12).

The Grandview Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 61 from Southern Avenue in Dubuque to Key West. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 61 relocation does not appear to have been the direct cause of significant development or major changes in land use on the southern side of Dubuque. While the highway certainly changed the land use of property in the path of its construction, most of the development in the area appears to have been limited, concentrated at the junction of Highway 61 and 52. Several subdivisions developed on either side of the new highway in the 1960s. A large trailer park was built in 1978. It wasn't until after the 1990s that an industrial park was developed along the southern end of the new highway. Commercial development to a limited degree was located along the highway, especially in the vicinity of US Highway 52. However, the development was not substantial. Given these facts, LBG concludes that the Grandview Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dubuque. The bridge does not meet any of the other registration requirements for Type 302 bridges. The bridge does not meet any of the other registration requirements for Type 302 bridges.

NAME(S) OF STRUCTURE

Grandview Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design For 70'x44' I-Beam Bridge; *Dubuque Telegraph Herald*, 1955-1957.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 151 Bridge

FHWA: 24102

LOCATION

US Hwy 151 over US Hwy 61

Dubuque County, Iowa

S: 23 T: 88N R: 2E

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 91

total length:309

roadway wdt: 56

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel I-girder, concrete guardrail

Carrying US Hwy. 151 over US Hwy. 61 south of Dubuque, this four-span 309' by 56' bridge two 91' interior spans and end spans that measure 60' and 61'. The bridge was designed on a 3 degree curve and is set at a 23 degree skew. Concrete piers with steel pilings support a substructure of steel continuous welded I-girders with diaphragms and a cast-in-place concrete deck. The bridge was designed by the ISHC in November 1968.

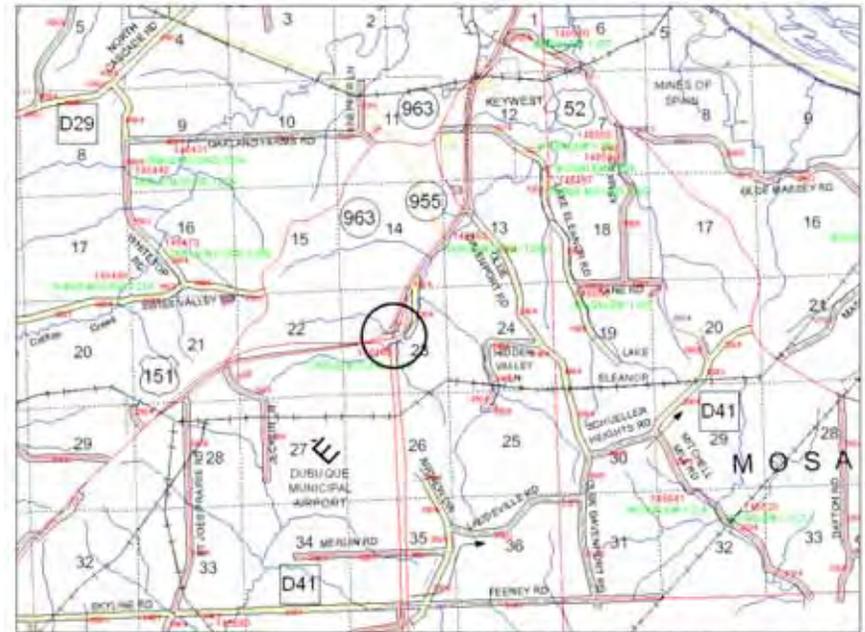
In April 1970, the contract for the bridge was let to A. M. Moser Construction Company of Farmersburg, Iowa (Dubuque Telegraph Herald June 22, 1970:12). The bridge was at the eastern end of an 18.9 mile relocation of US 151 from Cascade to Dubuque. The project was initially part of the 1963 ISHC five-year plan; but, was not started until 1970. Right-of-way acquisition on both ends of the new highway were contentious, causing many of the project's delays. On December 9, 1971, the new highway was dedicated at ceremonies in Cascade and Dubuque. Dubuque Mayor Gaylord Couchman and County Board of Supervisor's Chairman Louis C. Barrett were on hand for the Dubuque ribbon cutting ceremony. The highway project cost over \$7.2 million (*Dubuque Telegraph Herald* Dec. 9, 1971:30).

The US Hwy 151 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 61 from Southern Avenue in Dubuque to Key West. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 151 relocation does not appear to have been the direct cause of significant development or major changes in land use on the southernwestern side of Dubuque. While the highway certainly changed the land use of property in the path of its construction, most of the development in the area appears to have been very limited. The airport, located adjacent to the highway, was constructed prior to the planning of the highway. The limited development includes several small linear developments occurred north of the highway and rural residences were constructed along roads in the vicinity. Given these facts, LBG concludes that the Grandview Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Dubuque. The bridge does not meet any of the other registration requirements for Type 423 bridges. The bridge does not meet any of the other registration requirements for Type 423 bridges.

NAME(S) OF STRUCTURE

US Hwy 151 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Dubuque County, IA, 2001

Sources:

Dubuque Telegraph Herald 1969-1971; Design for 303'x56' Welded Girder Bridge, ISHC, November 1968.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

FHWA: 25610

LOCATION

US Hwy 30 over N. Raccoon River

S: 4 T: 83N R: 31W

Greene County, Iowa

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 5

span length: 82

total length: 379

roadway wdt: 28.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Carrying US 30 over the North Raccoon River northwest of Jefferson, this five-span 379' by 28' continuous I-beam bridge was built as part of the Highway 30 relocation route between Scranton and Grand Junction. Concrete piers support steel continuous girders and concrete cast-in-place decking. The three central spans are 82' long; while the approach spans are 64' long. The channel of meandering North Raccoon River was straightened in a north/south direction for the new bridge crossing. The bridge was designed by the Iowa State Highway Commission in May 1954.

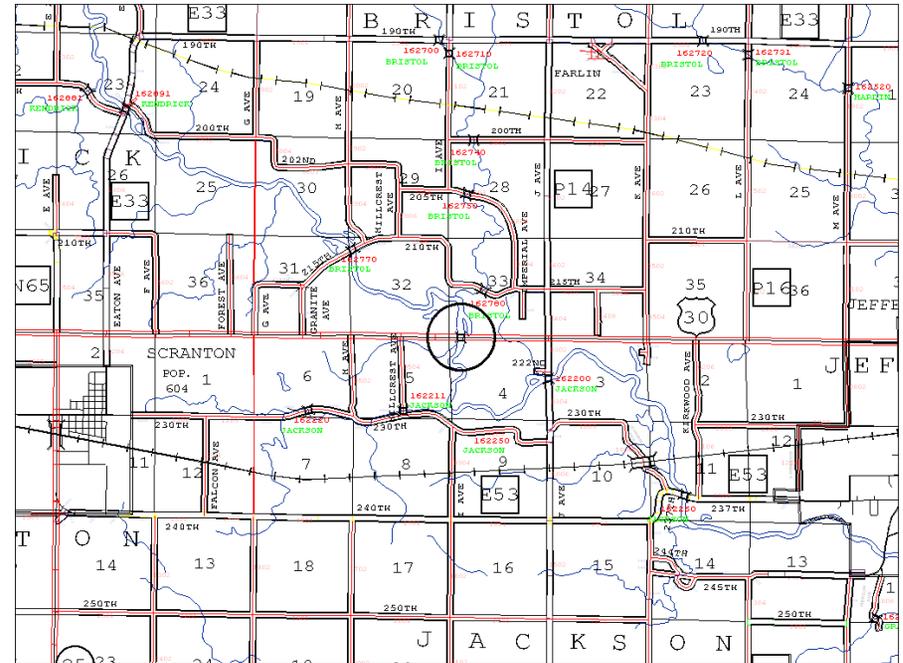
In February 1955, the Iowa State Highway Commission approved a relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (Jefferson Bee 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

On March 2, 1955, weeks after the relocation was announced by the Commission, a headline in the Jefferson newspaper read, "Sentiment Dominantly Against Relocation of Highway 30, Poll Shows." Local citizens and business owners worried that diversion of the highway, which ran through their downtown business district, to well north of the town would hurt businesses. Days after the route was open, filling stations in Jefferson reported a 35-50% drop in gasoline sales while other businesses reported slow customer traffic the weekend after the route opened. The relocation of the route prompted city leaders to establish an industrial area on the north side of town, adjacent to the new route. In April 1962, the Commission completed a study on the economic impact of the relocated highway on Jefferson. The study concluded that while filling stations and some cafes were negatively impacted, the decision to locate an industrial area on the north edge of town expanded the general economic growth of the town. Other businesses, like a new service station with adjacent hotel and restaurant, were also constructed along the relocated route. Commercial construction almost quadrupled in the year following the route's completion.

The US 30 bridge over the North Raccoon River does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The Raccoon River at Jefferson was crossed on the original Highway 30. While the relocated US 30 from Scranton to Grand Junction undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the town of Jefferson. While an industrial park was established on the north side of town, aerial photographs from 1965 show that only a few businesses had been established in this area and those were located along the railroad that ran through the development. The only development along the highway was the construction of the service station with adjacent hotel and restaurant. From 1965 to 1990, industrial development continued to grow with approximately 6-7 new businesses located along US 30 and 17. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the Steel Continuous I-Beam Bridge type. From 1942 to 1970, 1,165 of this type of bridge (Type 402) were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE
US Hwy 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Greene County, IA 2001

Sources:

The Jefferson Bee, 1954-1959. Influence of the U.S. 30 Relocation Upon Jefferson, Prepared April 1962 by the Traffic and Highway Planning Department, Iowa State Highway Commission. Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling and Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

FHWA: 25620

LOCATION

US Hwy 30 over Hardin Creek

Greene County, Iowa

S: 4 T: 83N R: 30W

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 5

span length: 42

total length: 197

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Conc Continuous Slab

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Carrying US 30 over Hardin Creek, this five-span 197' by 28' bridge was built as part of the Highway 30 relocation route between Scranton and Grand Junction. Concrete piers support a continuous concrete slab and concrete cast-in-place decking. The three center spans are 42' in length; while the two end spans are 34' in length. The meandering Hardin Creek was channelized at the juncture with the bridge so that it flowed through the three center spans.

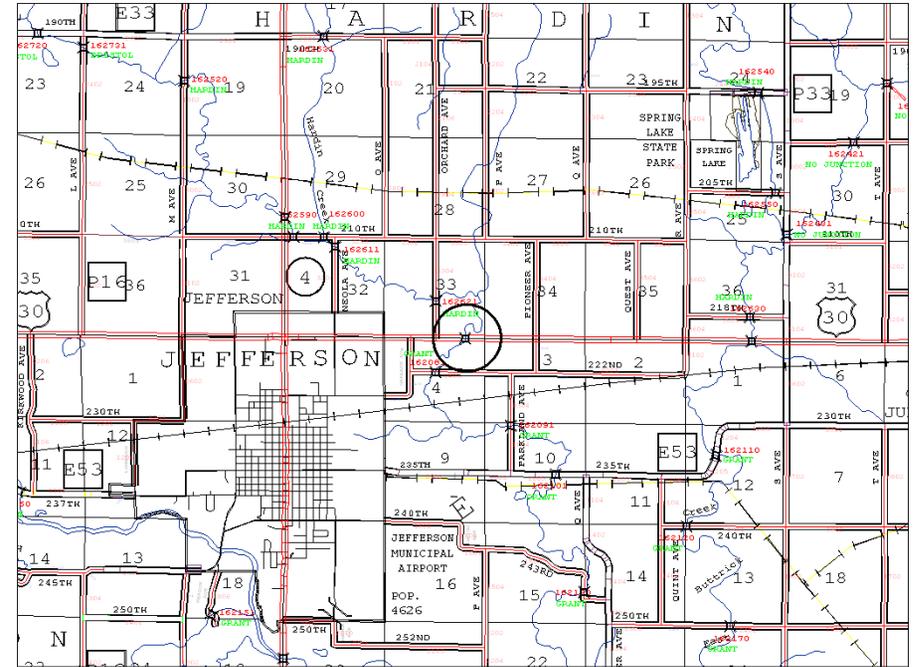
In February 1955, the Iowa State Highway Commission approved a relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (*Jefferson Bee* 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

On March 2, 1955, weeks after the relocation was announced by the Commission, a headline in the Jefferson newspaper read, "Sentiment Dominantly Against Relocation of Highway 30, Poll Shows." Local citizens and business owners worried that diversion of the highway, which ran through their downtown business district, to well north of the town would hurt businesses. Days after the route was open, filling stations in Jefferson reported a 35-50% drop in gasoline sales while other businesses reported slow customer traffic the weekend after the route opened. The relocation of the route prompted city leaders to establish an industrial area on the north side of town, adjacent to the new route. In April 1962, the Commission completed a study on the economic impact of the relocated highway on Jefferson. The study concluded that while filling stations and some cafes were negatively impacted, the decision to locate an industrial area on the north edge of town expanded the general economic growth of the town. Other businesses, like a new service station with adjacent hotel and restaurant, were also constructed along the relocated route. Commercial construction almost quadrupled in the year following the route's completion.

The US Hwy 30 Bridge over Hardin Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. While the relocated US 30 from Scranton to Grand Junction undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in any of the towns including Jefferson. While an industrial park was established on the north side of town, aerial photographs from 1965 show that only a few businesses had been established in this area and those were located along the railroad that ran through the development. The only development along the highway was the construction of the service station with adjacent hotel and restaurant. From 1965 to 1990, industrial development continued to grow with approximately 6-7 new businesses located along US 30 and 17. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the Concrete Continuous slab type. From 1942 to 1970, 921 of this type of bridge (Type 201) were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE
US Hwy 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Greene County, IA 2001

Sources:

The Jefferson Bee, 1954-1959. Influence of the U.S. 30 Relocation Upon Jefferson, Prepared April 1962 by the Traffic and Highway Planning Department, Iowa State Highway Commission. Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling and Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

FHWA: 25630

LOCATION

US Hwy 30 over Buttrick Creek

Greene County, Iowa

S: 1 T: 83N R: 30W

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 3

span length: 70

total length: 184

roadway wdt: 28.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Carrying US 30 over Buttrick Creek, this three-span 184' by 28' bridge was built as part of the Highway 30 relocation route between Scranton and Grand Junction. Concrete piers support steel continuous girders and concrete cast-in-place decking. The bridge has a 70' center span and two 55' end spans. The firm of Montgomery and Herberger began constructing the \$70,000 the bridge in the fall of 1956.

In February 1955, the Iowa State Highway Commission approved a relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (*Jefferson Bee* 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

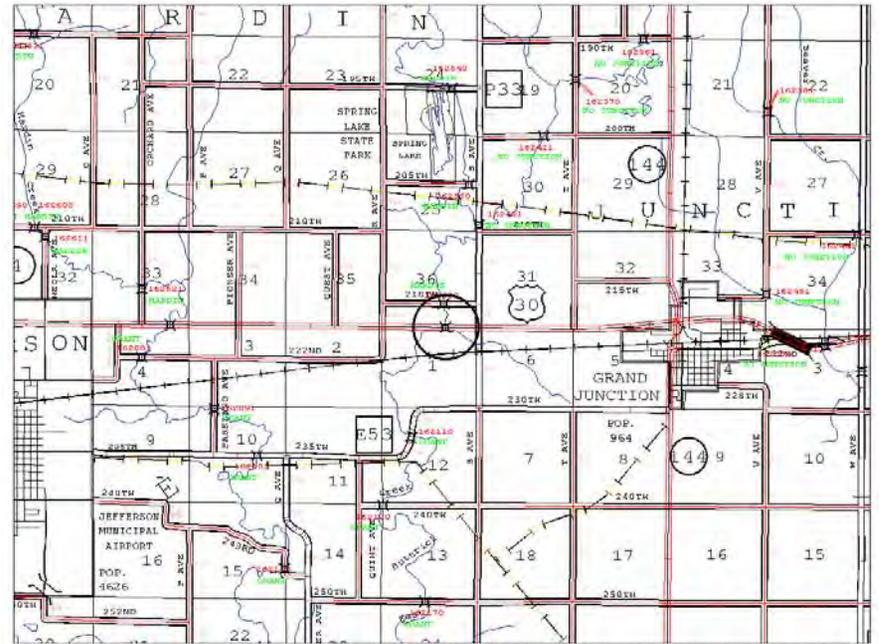
On March 2, 1955, weeks after the relocation was announced by the Commission, a headline in the Jefferson newspaper read, "Sentiment Dominantly Against Relocation of Highway 30, Poll Shows." Local citizens and business owners worried that diversion of the highway, which ran through their downtown business district, to well north of the town would hurt businesses. Days after the route was open, filling stations in Jefferson reported a 35-50% drop in gasoline sales while other businesses reported slow customer traffic the weekend after the route opened. The relocation of the route prompted city leaders to establish an industrial area on the north side of town, adjacent to the new route. In April 1962, the Commission completed a study on the economic impact of the relocated highway on Jefferson. The study concluded that while filling stations and some cafes were negatively impacted, the decision to locate an industrial area on the north edge of town expanded the general economic growth of the town. Other businesses, like a new service station with adjacent hotel and restaurant, were also constructed along the relocated route. Commercial construction almost quadrupled in the year following the route's completion.

The US Hwy 30 Bridge over Buttrick Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. While the relocated US 30 from Scranton to Grand Junction undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in any of the towns including Jefferson. While an industrial park was established on the north side of town, aerial photographs from 1965 show that only a few businesses had been established in this area and those were located along the railroad that ran through the development. The only development along the highway was the construction of the service station with adjacent hotel and restaurant. From 1965 to 1990, industrial development continued to grow with approximately 6-7 new businesses located along US 30 and 17. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the Continuous I-Beam Bridge type. From 1942 to 1970, 1,079 of this type of bridge (Type 402) were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Greene County, IA 2001

Sources:

The Jefferson Bee, 1954-1959. Influence of the U.S. 30 Relocation Upon Jefferson, Prepared April 1962 by the Traffic and Highway Planning Department, Iowa State Highway Commission. Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

FHWA: 25640

LOCATION

US Hwy 30 over UP Railroad

Greene County, Iowa

S: 3 T: 83N R: 29W

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 4

span length: 160

total length: 576

roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Carrying US 30 over the UP Railroad, this four-span 576' by 28' bridge was built as part of the Highway 30 relocation route between Scranton and Grand Junction. Concrete piers and steel continuous welded I-girders with diaphragms carry a concrete cast-in-place deck. The bridge has two 160' center spans and two 125' end spans.

In February 1955, the Iowa State Highway Commission approved a relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (*Jefferson Bee* 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

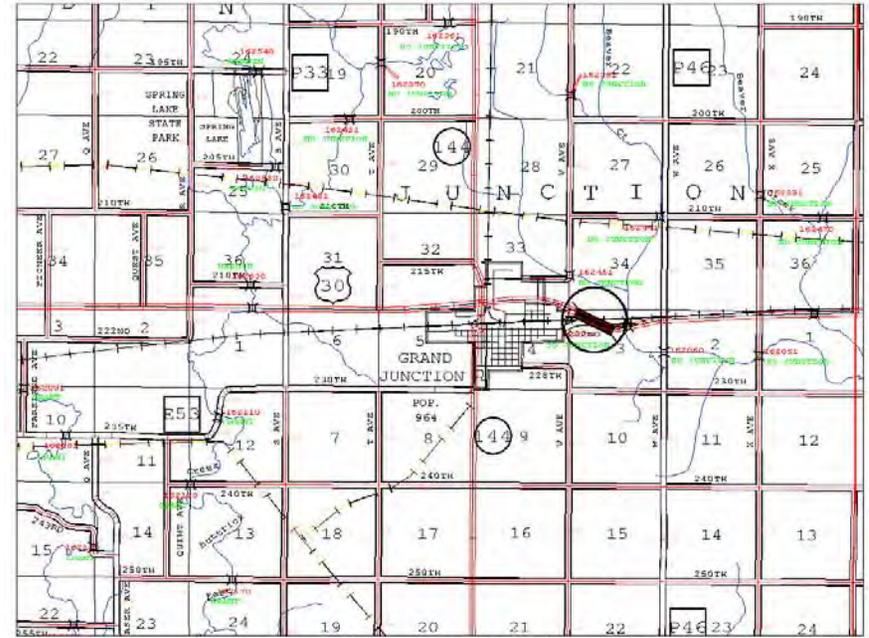
On March 2, 1955, weeks after the relocation was announced by the Commission, a headline in the Jefferson newspaper read, "Sentiment Dominantly Against Relocation of Highway 30, Poll Shows." Local citizens and business owners worried that diversion of the highway, which ran through their downtown business district, to well north of the town would hurt businesses. Days after the route was open, filling stations in Jefferson reported a 35-50% drop in gasoline sales while other businesses reported slow customer traffic the weekend after the route opened. The relocation of the route prompted city leaders to establish an industrial area on the north side of town, adjacent to the new route. In April 1962, the Commission completed a study on the economic impact of the relocated highway on Jefferson. The study concluded that while filling stations and some cafes were negatively impacted, the decision to locate an industrial area on the north edge of town expanded the general economic growth of the town. Other businesses, like a new service station with adjacent hotel and restaurant, were also constructed along the relocated route. Commercial construction almost quadrupled in the year following the route's completion.

The US Hwy 30 Bridge over the UP Railroad does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. While the relocated US 30 from Scranton to Grand Junction undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in any of the towns including Jefferson. While an industrial park was established on the north side of town, aerial photographs from 1965 show that only a few businesses had been established in this area and those were located along the railroad that ran through the development. The only development along the highway was the construction of the service station with adjacent hotel and restaurant. From 1965 to 1990, industrial development continued to grow with approximately 6-7 new businesses located along US 30 and 17. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the Continuous Welded I-Girder Bridge type. From 1942 to 1970, 174 of this type of bridge (Type 423) were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Greene County, IA 2001

Sources:

The Jefferson Bee, 1954-1959. Influence of the U.S. 30 Relocation Upon Jefferson, Prepared April 1962 by the Traffic and Highway Planning Department, Iowa State Highway Commission. Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

FHWA: 25650

LOCATION

US Hwy 30 over West Beaver Creek

Greene County, Iowa

S: 3 T: 83N R: 29W

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 1

span length: 51

total length:55

roadway wdt: 44

OWNER:

Iowa Department of Transportation

superstructure: Steel Stringer/Beam/Girder

substructure: Concrete abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Spanning West Beaver Creek east of Grand Junction, this single-span 55' by 44' bridge was built as part of the Highway 30 relocation route between Scranton and Grand Junction. Concrete abutments and steel girders support a concrete cast-in-place deck. The center span measures 51' and is 44' wide.

In February 1955, the Iowa State Highway Commission approved a relocation of US 30 across Greene County. By December, the Commission approved a final alignment for the new route. One of the main reasons for the new route from Jefferson to Grand Junction was elimination of the old Buttrick Bridge, which had been the site of numerous accidents and several "dangerous" curves (*Jefferson Bee* 1958:1). Through 1956 and 1957 work began on the route with purchase of right of way. By the end of 1957 the grading had been completed. Paving was completed in 1958. In mid September 1958, the route between Jefferson and Grand Junction was open. By June 1959, the Commission's annual report stated that the route was "nearly across the county."

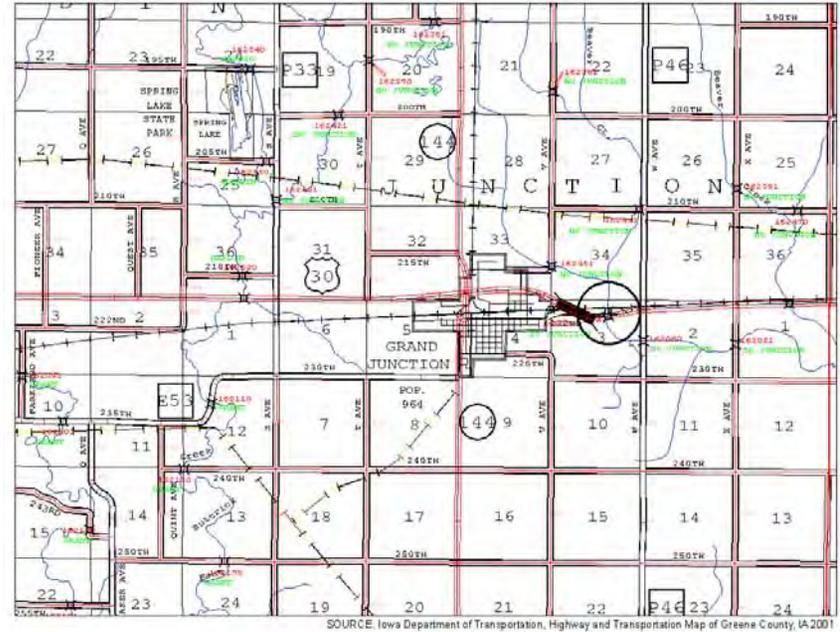
On March 2, 1955, weeks after the relocation was announced by the Commission, a headline in the Jefferson newspaper read, "Sentiment Dominantly Against Relocation of Highway 30, Poll Shows." Local citizens and business owners worried that diversion of the highway, which ran through their downtown business district, to well north of the town would hurt businesses. Days after the route was open, filling stations in Jefferson reported a 35-50% drop in gasoline sales while other businesses reported slow customer traffic the weekend after the route opened. The relocation of the route prompted city leaders to establish an industrial area on the north side of town, adjacent to the new route. In April 1962, the Commission completed a study on the economic impact of the relocated highway on Jefferson. The study concluded that while filling stations and some cafes were negatively impacted, the decision to locate an industrial area on the north edge of town expanded the general economic growth of the town. Other businesses, like a new service station with adjacent hotel and restaurant, were also constructed along the relocated route. Commercial construction almost quadrupled in the year following the route's completion.

The US Hwy 30 Bridge over West Beaver Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. While the relocated US 30 from Scranton to Grand Junction undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in any of the towns including Jefferson. While an industrial park was established on the north side of town, aerial photographs from 1965 show that only a few businesses had been established in this area and those were located along the railroad that ran through the development. The only development along the highway was the construction of the service station with adjacent hotel and restaurant. From 1965 to 1990, industrial development continued to grow with approximately 6-7 new businesses located along US 30 and 17. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguish it as an exceptional representative of the Simple Spane I-Beam Bridge type. From 1942 to 1970, 2,449 of this type of bridge (Type 302) were constructed in Iowa on local, state, and federal routes.

NAME(S) OF STRUCTURE

US Hwy 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

The Jefferson Bee, 1954-1959. Influence of the U.S. 30 Relocation Upon Jefferson, Prepared April 1962 by the Traffic and Highway Planning Department, Iowa State Highway Commission. Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

100th Street Bridge

FHWA: 29080

LOCATION

100th Street E. Br. DSM River

Humboldt County, Iowa

S: 1 T: 93N R: 28W

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 3

span length: 109

total length:282

roadway wdt: 28.2

OWNER:

Humboldt County

superstructure: Conc Continuous Box Beam or Girder-multi

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel guardrails

Carrying 100th Street over the East Branch of the Des Moines River on the Humboldt/Kossuth County line, this three-span continuous concrete box beam bridge is 282' long with a roadway width of 28.2'. Concrete piers support concrete cast-in-place decking. No historical information on the construction of the bridge could be found.

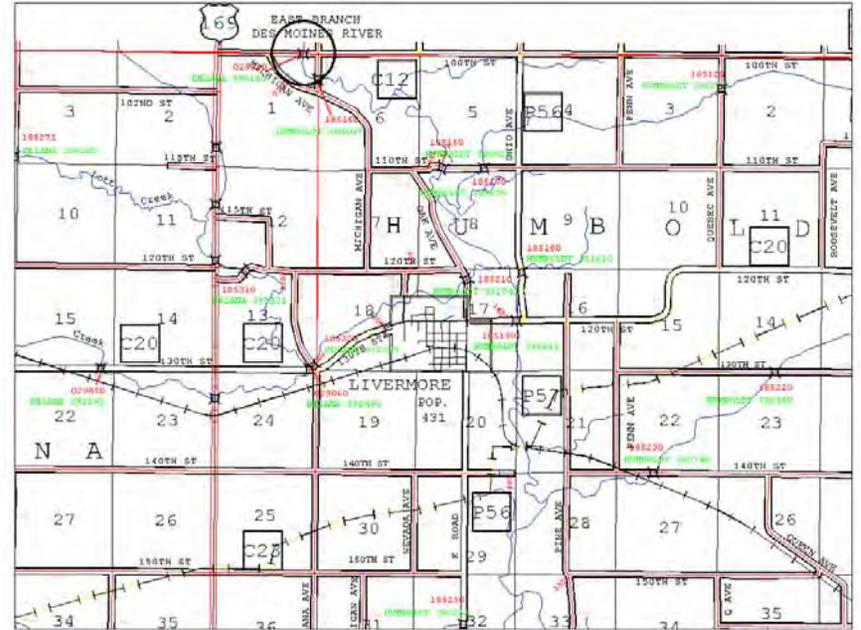
The 100th Street Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 as a large continuous box beam bridge of an exceptional span length. The registration requirements include box beam spans of over 100' in length as exceptional. With a main span of 109', this bridge does meet that requirement. The 100th Street Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

The application of the principles of continuity were applied to later forms of concrete spans including Continuous Box Girders [Type 205] by the mid-1940s. Continuous construction and cast-in-place concrete were a natural marriage for long bridges made of numerous repetitive short-to-medium spans, as well as approaches and viaducts. The short sections of longitudinal steel reinforcement needed only to be overlapped and "tied" together to function as a single continuous structural element once the concrete hardened around it. The "work" to reap the advantages of the continuous concrete bridge was in the design rather than in the construction so state highway departments were quick to adopt the continuous beam and girder bridge forms for a multitude of applications. The labor, materials and equipment required to build simple-span concrete bridges was the same for continuous bridges.

NAME(S) OF STRUCTURE

100th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US Hwy 6 Bridge

FHWA: 31570

LOCATION

US Hwy 6 over Iowa River

Johnson County, Iowa

S: 15 T: 79N R: 6W

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion A)

CONDITION

Good

span number: 5

span length: 70

total length: 320

roadway wdt: 52.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: reinforced concrete

floor/decking: Concrete Cast-in-place

other features: Steel guardrail

Spanning the Iowa River in Iowa City, this 320' x 52' continuous I-beam bridge was built in 1957 as part of the relocation of U.S. Highway 6 to the south side of the city. Concrete abutments and steel I-beams support a concrete cast-in-place deck. The center span measures 70' and the end spans measure 55' long. In May 1955, the ISHC began surveying for the possible relocation of Highway 6. Traffic studies conducted by ISHC in the mid-1950s indicated that approximately 38% of the traffic on the highway was through traffic; thus, they recommended that a bypass be constructed to alleviate congestion in Iowa City (*Iowa City Press-Citizen*, September 24, 1956:1). By the spring of 1956, the route was set along the southern edge of Iowa City from the junction of Highways 1 and 218 to Lower Muscatine Road to the southeast. On December 11, 1956, the contract for the bridge construction was let to A. Olson Construction Company of Waterloo for \$223,807 (*Iowa City Press-Citizen* December 12, 1956:1). In April 1957, work began on the wood pilings for the bridge (*Iowa City Press-Citizen* April 17, 1957:3). By November 1957, all four concrete piers were in place and work was expected to continue through the winter (*Iowa City Press-Citizen* November 14, 1957:1).

The US Highway 6 Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 6. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." A new Proctor & Gamble plant was constructed on Lower Muscatine Road in 1955/56. This, along with the construction of the Highway 6 bypass, caused significant residential, commercial, and industrial developments along the newly built highway corridor. Aerial photographs from the 1950s, 1960s, and 1970s show residential developments mainly north of the new highway. Commercial businesses were constructed along the highway just east of the river as was the Sycamore Mall, constructed in 1966-69. Residential developments also grew significantly on the east side of the city, though that may have been influenced more by topography than proximity to the new highway. In October 1957, the City proposed to annex tracts along the new highway (*Iowa City Press-Citizen*, October 31, 1957:1). Given these facts, LBG concludes that the US Highway 6 Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in southern Iowa City. The bridge does not meet any of the other registrations requirements for Type 402 bridges.

The Steel Continuous Stringer, Multi-beam or Girder bridge [Type 402] is in most ways identical to its simple span version with the primary difference being the continuation of the structural member over one or more intermediate piers, and the resultant need for only a single bearing at the intermediate pier rather than two separate bearings [see description of Type 302 above]. Riveted, bolted or welded butt splices of the structural members to make them structurally a continuous beam are often located not over the piers but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

NAME(S) OF STRUCTURE

US Hwy 6 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for 320'x56' Continuous I-Beam Bridge, ISHC, March 1956. *Iowa City Press-Citizen* 1955-1958.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 33470

LOCATION

EB US 30 over Cedar River

Linn County, Iowa

S: 9 T: 82N R: 6W

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway Bridge / Roadway Bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 8

span length: 150

total length: 1140

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Reinforced concrete

floor/decking: Concrete Cast-in-place

other features:

This 8-span bridge carries eastbound US 30 over the Cedar River several miles southeast of Cedar Rapids. The steel continuous welded I-girder bridge is 1140' in length with 8 spans, the longest of which is 150'. The bridge was designed by the Kansas City firm of Howard, Needles, Tammen and Bergendoff (HNTB). Drawings of the bridge were completed by mid-July 1951. Later that year, the bridge construction contract was awarded to the Iowa Bridge Company of Des Moines for \$532,708. Construction on the bridge began in November 1951. By July 1953, the piers and steelwork of the bridge had been completed and half of the concrete brick deck had been poured. By November 10, 1953, the Highway 30 cutoff was opened to traffic.

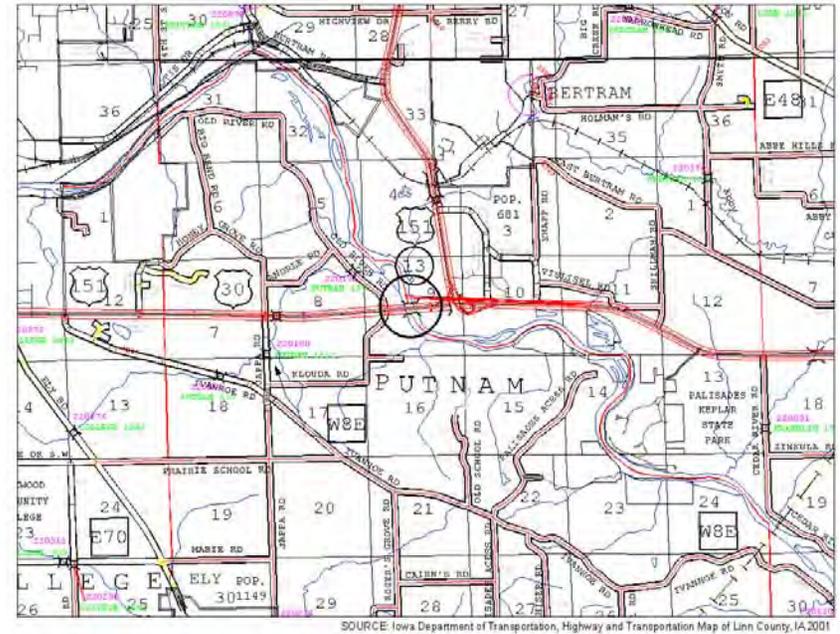
The bridge was included in the Phase II survey as it was a large bridge of exceptional overall length; though it did not meet the specific registration requirements for exceptional span length. The US Hwy 30 Cedar River Bridge is eligible for inclusion in the NRHP as it meets Registration Requirements under Criterion C in the MPD, Highway Bridges in Iowa: 1942-1970 as an early example of the welded I-girder bridge. Built in 1953, the bridge was the first of its type to be built in the state of Iowa. As such, the bridge meets the registration requirement for eligibility under Criterion C.

The bridge was part of a bypass that began on the east side of Lisbon and ended at 6th Street SW near Hawkeye Downs. Before the bypass travelers heading east on Highway 30 had to travel through the heart of the city along First Avenue or Sixteenth Avenue to Mount Vernon Road. The over 15-mile, two-lane cutoff was projected to cost around \$2.5 million. In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Progress on Iowa Highways, 1955-1956: An Interim Report to Iowa Highway Users, 1956. Iowa State Highway Commission, Ames, Iowa.

Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Cedar Rapids Gazette October 1951-November 1953.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

IA 5 Bridge
FHWA: 35160

LOCATION

IA 5 over White Breast Creek
Marion County, Iowa

S: 3 T: 75N R: 20W

DATE(S) OF CONSTRUCTION

1965

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 166
total length: 432
roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

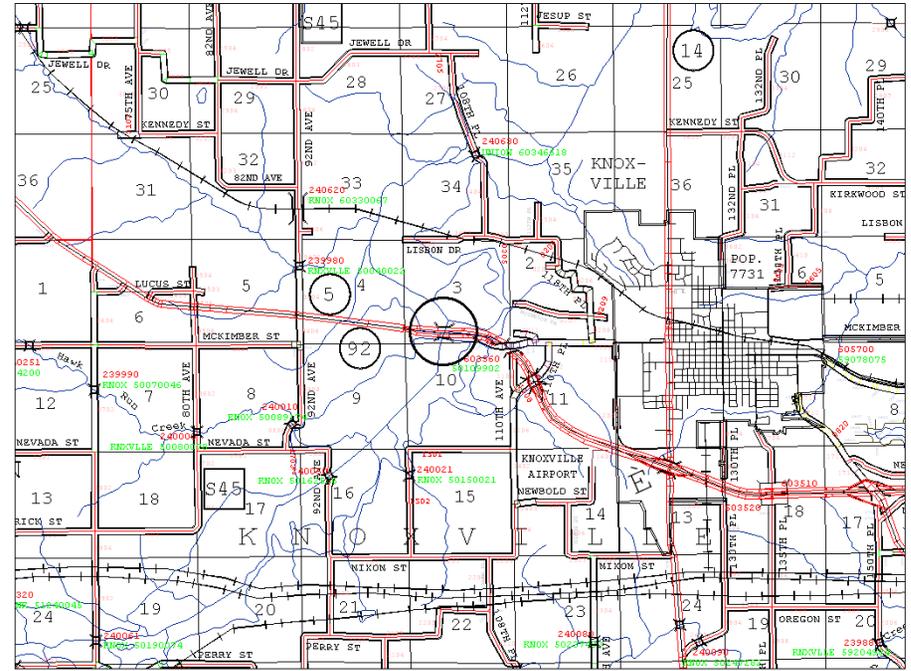
superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Steel continuous welded I-girders; conc. Guardrail

This three-span 432' by 29.8' double bridge carries Southbound Iowa 5 and Eastbound 92 over White Breast Creek west of Knoxville. Concrete piers support a superstructure of steel continuous welded I-girders with floorbeams. The center span measures 166' while the approach spans are 130'6" long. Then Highway 60/92 had to be relocated south due to the construction of the Red Rock Dam and Reservoir. Contracts for all of the bridges and highway relocation were awarded in June 1965. Schmidt Construction Company of Winfield, Iowa was awarded the contract to build the bridge for \$188,031 (*Pella Chronicle* June 29, 1965:8). In 1981, the interior and exterior stiffeners at eight floor beams were retrofit, allowing room for the girder beams to flex and preventing existing fatigue cracks from spreading (IDOT 1981).

The IA 5 Bridge does not meet any of the Registration Requirements outlined in the MPD, *Highway Bridges in Iowa: 1942-1970*. The bridge was not part of a first highway crossing of a major waterway. The IA 5 relocation does not appear to have been the direct cause of significant development or major changes in land use in Knoxville. Aerial photographs from the 1950s and 1990s show residential development on all sides of the city, particularly on the north side near the Marion County Fairgrounds/Knoxville Raceway. Commercial development concentrated along the major access routes into town: IA 14 and McKimber Drive (Old Hwy 92). The Knoxville Airport and some industrial structures were constructed on the south side of the relocated highway. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Steel Continuous Welded I-Girder w/Floorbeams. The bridge did not meet any of the Registrations Requirements for Type 432 bridges.

NAME(S) OF STRUCTURE
IA 5 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Marion County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 35160; *Pella Chronicle*, June 29, 1965.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Red Rock Lake Bridge

FHWA: 35200

LOCATION

IA 14 over Red Rock Lake

Marion County, Iowa

S: 1 T: 76N R: 20W

DATE(S) OF CONSTRUCTION

1965

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible, Criteria A and C (Criteria Cons. G)

CONDITION

Good

span number: 42

span length: 143

total length:5653

roadway wdt: 36

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous welded I-girders; conc. Guardrail

Carrying Iowa 14 over the Des Moines River / Red Rock Lake reservoir north of Knoxville, this 42-span 5,653' by 36' bridge was constructed in 1965. The six units of the bridge are each comprised of 112'9" end spans and five 142'6" interior spans. Concrete piers support a superstructure of steel continuous welded I-girders with floorbeams. The bridge was designed by the Iowa Highway Commission. The contract for the 42-pier substructure of the over one-mile long bridge was let to Schmidt Construction Company of Winfield, Iowa in October 1963. The contract for the superstructure was let in April 1964 to Schmidt Construction Company. The substructure was completed in September 1964. The bridge was opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600 and was financed by federal funds as part of the \$83 million Red Rock dam and reservoir project.

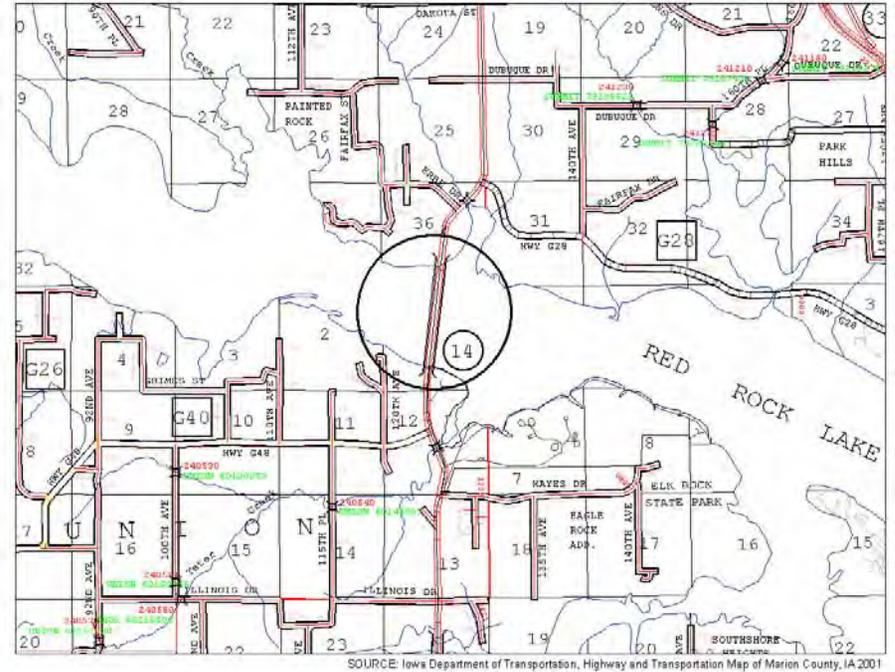
The Red Rock Lake Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 as it is a continuous welded I-girder bridge with an exceptional length of over 2,000'. With an overall length of 5653', this bridge does meet that requirement. The Red Rock Lake Bridge does meet registration requirements under Criterion A for its association with the major federal undertaking of the construction of the Red Rock Dam and Reservoir. Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The Red Rock dam and reservoir project was one of the largest undertakings of its kind in Iowa and the Red Rock Lake Bridge was the longest and tallest bridge in Iowa at the time of its construction.

The Red Rock Dam project was authorized in the Flood Control Acts of June 1938 and December 1944. In June 1944, the Senate Commerce Committee approved \$15 million of the \$1 billion national flood control program for a large dam to the southeast of Des Moines (*Council Bluffs Nonpareil* June 25, 1944:7). Floods in 1947 prompted a second dam on the Des Moines River at Saylorville (*Pella Chronicle* July 19, 1956:1). In 1956, planning for the project began. On June 4, 1960, the groundbreaking ceremony was held (*Pella Chronicle* June 9, 1960:1). Approximately 86 miles of railroad, 10 miles of state highway, 85 miles of county roads, and numerous bridges in the area would be impacted, either through submersion or relocation (*Pella Chronicle-Advertiser* September 3, 1969:9B). Thus, while the dam was being built, several new bridges and roads were constructed. The 5,653' Iowa 14 Bridge over the Des Moines River / Red Rock Lake (FHWA #35200) was designed by the Iowa Highway Commission and opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600. The concrete road over the spillway and dam (FHWA #240385) was one of the last items constructed in 1967 (*Pella Chronicle-Advertiser* January 30, 1968:1). The IA 316 Bridge (FHWA #280555) between Runnells and Swan was completed in 1968. New bridges also had to be built for relocated routes such as IA 5 southwest of Knoxville. On March 17, 1969, the dam went into operation and the permanent pool level of 725' was reached in three days due to the spring melt (*Pella Chronicle-Advertiser* September 3, 1969:Special Insert, p.7). The Red Rock Dam and Reservoir was dedicated on September 6, 1969. Four days of festivities accompanied the dedication of the dam. When completed, the 6,300-acre dam was the largest man-made lake in Iowa.

NAME(S) OF STRUCTURE

Red Rock Lake Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 35200;

Iowa Department of Transportation, Hiway Hilites, November 1965;

Pella Chronicle-Advertiser 1956-1969; *Council Bluffs Nonpareil* June 25, 1944;

Inventoried By:

Kristie Baynard and Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Decatur Bridge

FHWA: 36810

LOCATION

IA 175 over Missouri River

Monona County, Iowa

S: 18 T: 83N R: 46W

DATE(S) OF CONSTRUCTION

1951

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criteria A and C)

CONDITION

Good

span number: 2

span length: 421

total length: 1956

roadway wdt: 23.2

OWNER:

Private

superstructure: Steel Continuous Truss-thru

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous truss

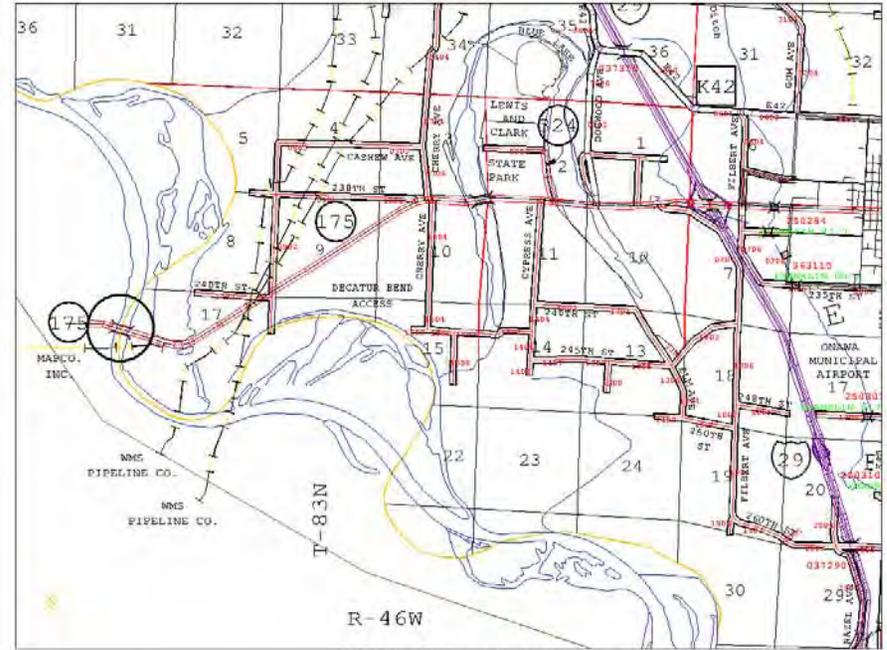
Carrying IA 175 over the Missouri River into Nebraska, this five-span steel continuous truss bridge is 1956' long by 23' wide with an average span length of 421'. It is a toll bridge with a fee of 75 cents at present. The Burt County Nebraska Bridge Commission was formed around 1949 with the intent of constructing a bridge across the Missouri River between Decatur, Nebraska and Onawa, Iowa (*Onawa Weekly Democrat* 1949:1). Initially funded with \$1.5 million in bonds, William J. Howard Company, Inc of Chicago received the winning bid for the bridge construction in January 1950 (*Onawa Weekly Democrat* 1950a:1). The bridge was designed by Kirkham, Michael & Associates of Omaha, Nebraska. The ground breaking ceremony was on April 21, 1950 in Decatur, Nebraska. Onawa residents were transported to the festivities by boat across the Missouri River (*Onawa Weekly Democrat* 1950b:1). The bridge was constructed near the Decatur side of the Missouri River basin, several hundred yards west of the river channel. This was purposely done by the bridge engineers to reduce construction costs; it being easier to build the bridge on dry land (*Onawa Weekly Democrat* 1951a:1). However, by the time the bridge was almost halfway complete, financing for the rechannelization of the river had not been secured, being tied to the larger flood-control effort in the Missouri Basin. After being held up in appropriations for two years, some dredging work at the site of the bridge began in January 1955 (*Onawa Weekly Democrat* 2-3-1955:1); though a \$600,000 contract for the diversion of the river under the bridge was not let by the Corps of Engineers until April 1955 (*Onawa Weekly Democrat* 4-14-1955:1). Over the next eight months, work progressed on diversion of the river and completion of bridge approaches on both sides of the bridge. On December 12, 1955, both approaches were completed; cutting a one and a half hour trip to Decatur down to twenty minutes (*Onawa Weekly Democrat* 12-22-1955:1). The bridge was officially opened to traffic and charging tolls for crossing in January 1956. The bridge was formally dedicated on May 6, 1956 as part of the Centennial Celebration of Decatur (*Onawa Weekly Democrat* 5-3-1955:1).

The Decatur Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 as a steel continuous thru truss bridge of an exceptional span length. The registration requirements include spans of over 400' in length as exceptional. With a main span of 421', this bridge does meet that requirement. The Decatur Bridge also meets registration requirements under Criterion A as a large bridge establishing a first highway crossing of a major waterway and as a major state bridge building initiative.

NAME(S) OF STRUCTURE

Decatur Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004. *Onawa Weekly Democrat* 1949-1956.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB IA 163 Bridge

FHWA: 40950

LOCATION

EB IA 163 over E. Four Mile Cr.

Polk County, Iowa

S: 4 T: 78N R: 23W

DATE(S) OF CONSTRUCTION

1965

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 5

span length: 127

total length:596

roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous welded I-girders with floorbeams

This 596' by 29.8' double bridge carries Eastbound Iowa 163 over East Four Mile Creek and a railroad line. This five-span bridge has three 126' interior spans and 91' and 118' end spans. Reinforced concrete piers carry steel continuous welded I-girders with floorbeams and cast-in-place concrete decking. The East Four Mile Creek was channelized for the crossing. The bridge was designed by the ISHC in December 1962 with detail plans completed in March 1963. By January 1965, the bridge had been completed. In 1980, floor beam stiffeners were retrofitted to prevent further cracking in the web of the main girders (IaDOT 1980:4).

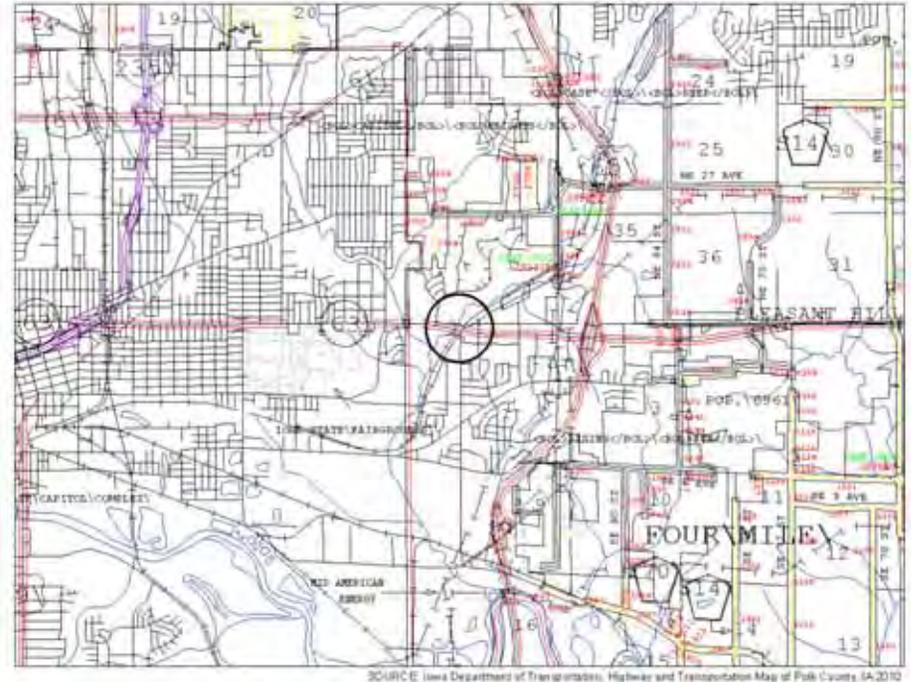
In February 1961, contracts were let to the firm of Wallace and Holland of Mason City for the design of 3½ miles of relocated IA Highway 163 (*Mason City Globe-Gazette*, 2-16, 1961:8). In January 1964, two property owners adjacent to the proposed relocated freeway filed suit against the ISHC challenging the condemnation awards for their property (*Ames Tribune* January 7, 1964:1). Bids were to be taken for construction on April 7, 1964; however, the bids were deferred as the adjacent City of Pleasant Hill had not signed a resolution in support of the project (*Des Moines Register* April 9, 1964:10). Little or no subsequent information could be found in newspapers on the construction of the freeway. The Oskaloosa Daily Herald reported that part of the freeway east out of Des Moines was completed by January 1965 (*Oskaloosa Daily Herald* January 29, 1965:1). The bridge over Four Mile Creek was completed by April 1965 (*Des Moines Register*, April 19, 1965:19).

The EB IA 163 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway 163 relocation does not appear to have been the direct cause of significant development or major changes in land use in Des Moines. Aerial photographs from the 1960s and 1990s show large residential and commercial developments on the north, northwest and west sides of the city, near Interstates 80 and 35. As early as 1966, the southeast side of Des Moines was seen as having the least potential for growth in the next decade, despite the relocation project being complete (*Des Moines Register* Dec. 1, 1966:9). Residential development along the south side of the relocated highway began in the mid-1960s. This residential continued to grow until the 1990s, when development in the area expanded greatly. Most of the commercial/retail structures along the highway were built in the 1990s and later. Lastly, the bridge was not part of a major state highway project. The project received very little attention or fanfare from the local population. The bridge did not meet any of the Registrations Requirements for Type 432 bridges.

NAME(S) OF STRUCTURE

EB IA 163 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 40950; *Mason City Globe-Gazette* 1961; *Ames Tribune* 1964; *Oskaloosa Daily Herald* 1965; *Des Moines Register* 1964-1966.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB IA 163 Bridge

FHWA: 40960

LOCATION

WB IA 163 over E. Four Mile Cr.

Polk County, Iowa

S: 4 T: 78N R: 23W

DATE(S) OF CONSTRUCTION

1965

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 5

span length: 127

total length: 596

roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous welded I-girders with floorbeams

This 596' by 29.8' double bridge carries Westbound Iowa 163 over East Four Mile Creek and a railroad line. This five-span bridge has three 126' interior spans and 91' and 118' end spans. Reinforced concrete piers carry steel continuous welded I-girders with floorbeams and cast-in-place concrete decking. The East Four Mile Creek was channelized for the crossing. The bridge was designed by the ISHC in December 1962 with detail plans completed in March 1963. By January 1965, the bridge had been completed. In 1980, floor beam stiffeners were retrofitted to prevent further cracking in the web of the main girders (IaDOT 1980:4).

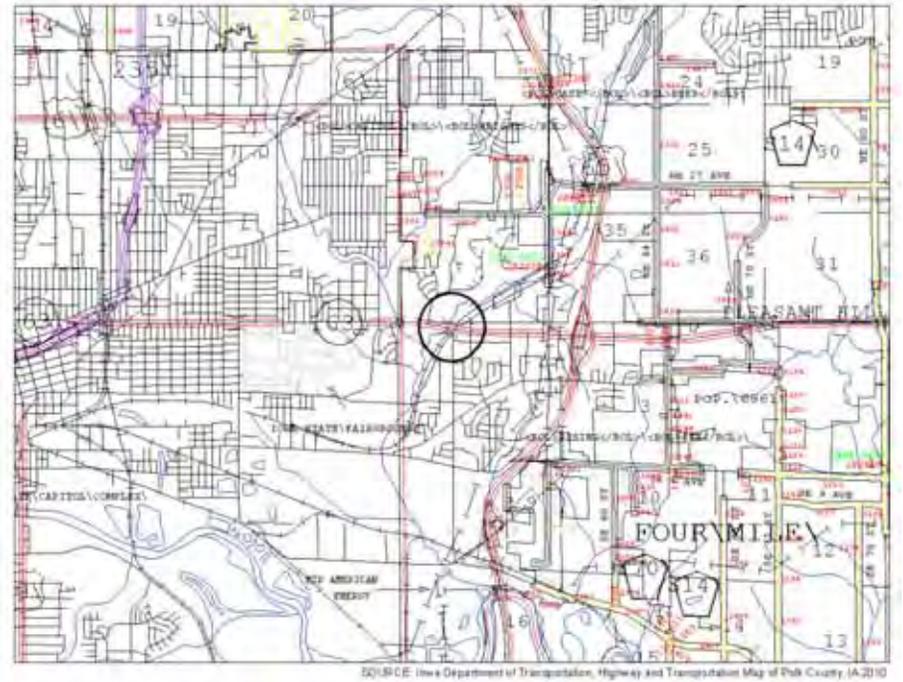
In February 1961, contracts were let to the firm of Wallace and Holland of Mason City for the design of 3½ miles of relocated IA Highway 163 (*Mason City Globe-Gazette*, 2-16, 1961:8). In January 1964, two property owners adjacent to the proposed relocated freeway filed suit against the ISHC challenging the condemnation awards for their property (*Ames Tribune* January 7, 1964:1). Bids were to be taken for construction on April 7, 1964; however, the bids were deferred as the adjacent City of Pleasant Hill had not signed a resolution in support of the project (*Des Moines Register* April 9, 1964:10). Little or no subsequent information could be found in newspapers on the construction of the freeway. The Oskaloosa Daily Herald reported that part of the freeway east out of Des Moines was completed by January 1965 (*Oskaloosa Daily Herald* January 29, 1965:1). The bridge over Four Mile Creek was completed by April 1965 (*Des Moines Register*, April 19, 1965:19).

The WB IA 163 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway 163 relocation does not appear to have been the direct cause of significant development or major changes in land use in Des Moines. Aerial photographs from the 1960s and 1990s show large residential and commercial developments on the north, northwest and west sides of the city, near Interstates 80 and 35. As early as 1966, the southeast side of Des Moines was seen as having the least potential for growth in the next decade, despite the relocation project being complete (*Des Moines Register* Dec. 1, 1966:9). Residential development along the south side of the relocated highway began in the mid-1960s. This residential continued to grow until the 1990s, when development in the area expanded greatly. Most of the commercial/retail structures along the highway were built in the 1990s and later. Lastly, the bridge was not part of a major state highway project. The project received very little attention or fanfare from the local population. The bridge did not meet any of the Registrations Requirements for Type 432 bridges.

NAME(S) OF STRUCTURE

WB IA 163 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 40960; *Mason City Globe-Gazette* 1961; *Ames Tribune* 1964; *Oskaloosa Daily Herald* 1965; *Des Moines Register* 1964-1965.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB IA 163 Bridge

FHWA: 40970

LOCATION

EB IA 163 Bridge over Mud Creek

Polk County, Iowa

S: 5 T: 78N R: 22W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 59

total length:153

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous girders

Carrying Eastbound Iowa 163 over Mud Creek east of Des Moines, this three-span 153' by 30.1' double bridge was constructed in 1963. The bridge has a 58' center span and two 45' end spans. Reinforced concrete piers support steel continuous girders and cast-in-place decking. The bridge was designed by the ISHC in September 1959. In 2007, the bridge was widened to 40' by adding two new girders on the outer edges of each bridge (IaDOT August 2007).

In February 1961, contracts were let to the firm of Wallace and Holland of Mason City for the design of 3½ miles of relocated IA Highway 163 (*Mason City Globe-Gazette*, 2-16, 1961:8). In January 1964, two property owners adjacent to the proposed relocated freeway filed suit against the ISHC challenging the condemnation awards for their property (*Ames Tribune* January 7, 1964:1). Bids were to be taken for construction on April 7, 1964; however, the bids were deferred as the adjacent City of Pleasant Hill had not signed a resolution in support of the project (*Des Moines Register* April 9, 1964:10). Little or no subsequent information could be found in newspapers on the construction of the freeway. The Oskaloosa Daily Herald reported that part of the freeway east out of Des Moines was completed by January 1965 (*Oskaloosa Daily Herald* January 29, 1965:1). The bridge over Four Mile Creek was completed by April 1965 (*Des Moines Register*, April 19, 1965:19).

The EB IA 163 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway 163 relocation does not appear to have been the direct cause of significant development or major changes in land use in Des Moines. Aerial photographs from the 1960s and 1990s show large residential and commercial developments on the north, northwest and west sides of the city, near Interstates 80 and 35. As early as 1966, the southeast side of Des Moines was seen as having the least potential for growth in the next decade, despite the relocation project being complete (*Des Moines Register* Dec. 1, 1966:9). Residential development along the south side of the relocated highway began in the mid-1960s. This residential continued to grow until the 1990s, when development in the area expanded greatly. Most of the commercial/retail structures along the highway were built in the 1990s and later. Lastly, the bridge was not part of a major state highway project. The project received very little attention or fanfare from the local population. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

EB IA 163 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 40970; *Mason City Globe-Gazette* 1961; *Ames Tribune* 1964; *Oskaloosa Daily Herald* 1965; *Des Moines Register* 1964-1965.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB IA 163 Bridge

FHWA: 40980

LOCATION

WB IA 163 Bridge over Mud Creek

S: 5 T: 78N R: 22W

Polk County, Iowa

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 59

total length:153

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous girders

Carrying Westbound Iowa 163 over Mud Creek east of Des Moines, this three-span 153' by 30.1' double bridge was constructed in 1963. The bridge has a 58' center span and two 45' end spans. Reinforced concrete piers support steel continuous girders and cast-in-place decking. The bridge was designed by the ISHC in September 1959. In 2007, the bridge was widened to 40' by adding two new girders on the outer edges of each bridge (IaDOT August 2007).

In February 1961, contracts were let to the firm of Wallace and Holland of Mason City for the design of 3½ miles of relocated IA Highway 163 (*Mason City Globe-Gazette*, 2-16, 1961:8). In January 1964, two property owners adjacent to the proposed relocated freeway filed suit against the ISHC challenging the condemnation awards for their property (*Ames Tribune* January 7, 1964:1). Bids were to be taken for construction on April 7, 1964; however, the bids were deferred as the adjacent City of Pleasant Hill had not signed a resolution in support of the project (*Des Moines Register* April 9, 1964:10). Little or no subsequent information could be found in newspapers on the construction of the freeway. The Oskaloosa Daily Herald reported that part of the freeway east out of Des Moines was completed by January 1965 (*Oskaloosa Daily Herald* January 29, 1965:1). The bridge over Four Mile Creek was completed by April 1965 (*Des Moines Register*, April 19, 1965:19).

The WB IA 163 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway 163 relocation does not appear to have been the direct cause of significant development or major changes in land use in Des Moines. Aerial photographs from the 1960s and 1990s show large residential and commercial developments on the north, northwest and west sides of the city, near Interstates 80 and 35. As early as 1966, the southeast side of Des Moines was seen as having the least potential for growth in the next decade, despite the relocation project being complete (*Des Moines Register* Dec. 1, 1966:9). Residential development along the south side of the relocated highway began in the mid-1960s. This residential continued to grow until the 1990s, when development in the area expanded greatly. Most of the commercial/retail structures along the highway were built in the 1990s and later. Lastly, the bridge was not part of a major state highway project. The project received very little attention or fanfare from the local population. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

WB IA 163 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE Iowa Department of Transportation, Highway and Transportation Map of Polk County, IA, 2010

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 40980; *Mason City Globe-Gazette* 1961; *Ames Tribune* 1964; *Oskaloosa Daily Herald* 1965; *Des Moines Register* 1964-1965.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Broadway Viaduct

FHWA: 43130

LOCATION

Broadway between 9th and 15th

Pottawattamie County, Iowa

S: 26 T: 75N R: 44W

DATE(S) OF CONSTRUCTION

1955

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 19

span length: 104

total length:2513

roadway wdt: 52

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Reinforced Concrete

floor/decking: Concrete Cast-in-place

other features: Steel continuous girder; cast-in-place decking

The viaduct carries Broadway (US 6 & IA 192) over the Chicago Central and Pacific (CC) Railroad in downtown Council Bluffs. It begins between 15th and 14th streets on the west and ends at 9th Street on the east. The 19-span viaduct is 2,513 feet long by 52 feet wide and has steel continuous girder superstructure and a concrete substructure. While completing plans for the viaduct in 1950, the Iowa Highway Commission explored using the foundations of an old, unused bridge that crossed Indian Creek 250 feet west of the main Illinois Central Railroad tracks. However, as early as 1940, the city council and Iowa Highway Commission agreed to undertake construction of a new viaduct over the railroad tracks, then the Illinois Central and Northwestern. While both agreed on the construction of a viaduct, they did not agree on the amount of property damages that needed to be paid to property owners. The conflict ended in an injunction by the Iowa Supreme Court barring any further action on the project until the damages dispute was resolved. Five years later, in December 1945, the Council Bluffs Chamber of Commerce put construction of the viaduct on the top of their projects for 1946. In July 1948, the mayor and city aldermen launched a formal campaign for the viaduct's construction. In January 1949, the city agreed to pay damages to adjacent property owners and furnish the right-of-way for the project; while, the Iowa Highway Commission agreed to design and build the viaduct. A bill was introduced in the Iowa legislature to help the city determine the amount of damages to property owners. In early April, the bill was passed.

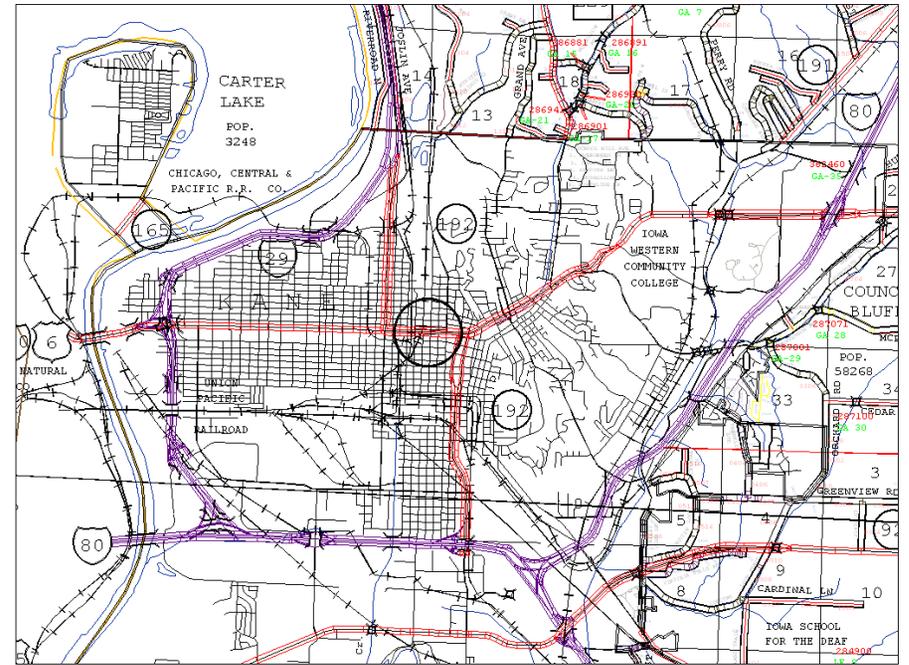
The war delayed the start of construction until December 1953 when digging for the footings and adjacent sewer and water lines began. A 54 inch concrete pipe that would contain sanitary sewer lines was dug underneath the railroad tracks. By March 1954, the sewer and water line work was complete and bridge construction began on the pilings. The construction contract was given to Larsen Brothers Construction Company of Council Bluffs. Paving on and underneath the viaduct began in March 1955. On August 17, 1955, the \$2 million Broadway viaduct was officially opened by Iowa Governor Leo A. Hoegh.

The Broadway Viaduct is not eligible for inclusion in the NRHP as it does not meet any of the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970. Registration requirements state that "structures in excess of 2000 feet overall length...may possess significant engineering characteristics and/or be early and large examples of the type". The viaduct does not meet the aforementioned requirement or any of the other registration requirements for eligibility under Criteria A or C. Though the viaduct has a structural length of over 2,000 feet as prescribed in the MPDF, the structure does not possess significant engineering characteristics to warrant eligibility under Criterion C. By the 1930s, viaducts were commonly constructed with concrete bents or piers and continuous steel girders.

NAME(S) OF STRUCTURE

Broadway Viaduct

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 043130; *Council Bluffs Nonpareil 1945-1955*.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 6 Highway Bridge

FHWA: 43270

LOCATION

US Highway 6 over Silver Creek

Pottawattamie County, Iowa

S: 13 T: 75N R: 41W

DATE(S) OF CONSTRUCTION

1961

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible, Criterion C

CONDITION

Good

span number: 3

span length: 93

total length:245

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Reinforced Concrete

floor/decking: Concrete Cast-in-place

other features: Steel continuous girder; metal guardrails

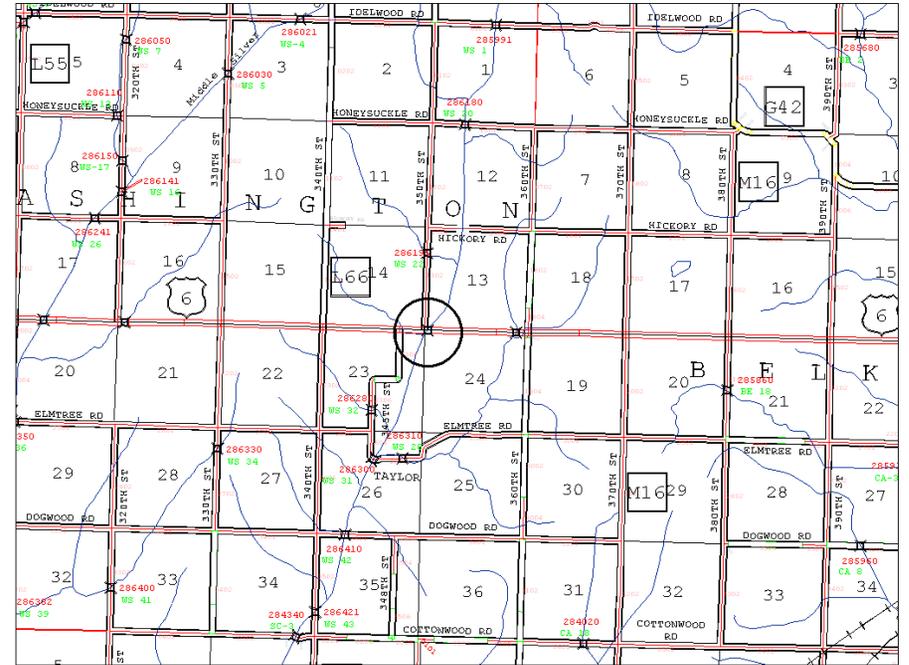
This three-span 245' by 30' steel continuous girder bridge carries US Hwy. 6 over Silver Creek at 350th Street west of Oakland. The bridge has reinforced concrete piers and a concrete, cast-in-place floor. This bridge replaced a 70'x20' pony truss bridge.

According to the ISHC, the bridge was the first prestressed steel bridge in the United States. In July 1960, ISHC structural engineer Bill Barnard posited the idea of prestressing steel for bridges based on the successful experimentation of prestressing concrete for the same purpose. The process involved adding weight to a beam to cause it to bend (or deflect). Then T1 heat-treated cover plates are welded to the deflected beams. Once the plates are welded, the weight on the beam is removed and the deflected beam is inverted for use in a bridge. This process strengthens the beam, allowing it to be used in place of larger beams. The process was thought to save up to 25% in steel weight (*Hiway Hilites* March 1961:7-9).

The US 6 Highway Bridge meets several Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970 and as such is eligible for inclusion in the National Register of Historic Places under Criterion C. The bridge is an early, well-preserved example of a prestressed welded steel girder bridge, the first of its kind in the U.S. according to the ISHC. The bridge is also an exceptional example of work by ISHC structural engineer Bill Barnard, who created and tested the concept of prestressing steel for bridges. The bridge has a high degree of integrity with no major repairs noted in the SI&A database or eRMS.

NAME(S) OF STRUCTURE
US 6 Highway Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Potawattamie County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 043270;
Iowa Department of Transportation, *Hiway Hillites* March 1961.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 61 Bridge
FHWA: 46870

LOCATION

US 61 Bridge over Rockingham Rd
Scott County, Iowa

S: 5 T: 77N R: 3E

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 73
total length: 184
roadway wdt: 56.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder
substructure: Concrete piers and abutments
floor/decking: Concrete Cast-in-place
other features:

This three-span 184' by 56' steel continuous girder bridge carries US Hwy 61 over Rockingham Road west of Davenport. The bridge has steel railing, reinforced concrete piers and a concrete, cast-in-place floor. The bridge has 55' end spans and a 70' center span. The abutments have creosoted wood piles; while the piers have steel piles. The bridge was designed by the ISHC in February 1956. An origin and destination survey completed by the ISHC indicated 67% of traffic using IA 22 and US Hwy 61 on the southwest side had an origin/destination of Davenport (*Davenport Morning Democrat* Nov. 14, 1958:21). Thus, the 3.8 mile relocation was designed to better accommodate traffic flow into the city. In spring of 1957, construction began on the highway relocation of US Hwy 61 from Davenport to the top of Blue Grass Hill. The bridge was constructed by McCarthy Improvement Company of Davenport for \$109,654 (*Davenport Morning Democrat* Nov. 14, 1958:21). On November 14, 1958, the new highway, named the River Street Expressway, was dedicated with a ribbon cutting ceremony and a 50-car motorcade from Davenport to Blue Grass (*Davenport Morning Democrat* Nov. 14, 1958:1).

The US 61 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 61 relocation does not appear to have been the direct cause of significant development or major changes in land use in Davenport. Aerial photographs from the 1950s, 1960s, and 1990s show large residential and commercial developments on the north and west sides of the city, near Interstates 80 and 74. Starting the early 1960s light industrial businesses developed on either side of the relocated highway between the railroad and Rockingham Road. The industrial area expanded south as Interstate 280 was constructed. Lastly, the bridge was not part of a major state highway project as it was only a 3.8 mile segment. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

US 61 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 46870; *Davenport Morning Democrat* 1958; Design for 180'x56' Continuous I-Beam Grade Separation, ISHC February 1956.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 61 Bridge
FHWA: 46880

LOCATION

US 61 Bridge over IMRL RR
Scott County, Iowa

S: 5 T: 77N R: 3E

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 6
span length: 88
total length: 464
roadway wdt: 56.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)
substructure: Reinforced concrete
floor/decking: Concrete Cast-in-place
other features: Steel railing

This six-span 464' by 56' steel continuous welded I-girder bridge with floorbeams carries US Hwy. 61 over the IMRL Railroad west of Davenport. The bridge has steel railing, reinforced concrete piers and a concrete, cast-in-place floor. The bridge has 66' end spans and 88' center spans. An origin and destination survey completed by the ISHC indicated 67% of traffic using IA 22 and US Hwy 61 on the southwest side had an origin/destination of Davenport (*Davenport Morning Democrat* Nov. 14, 1958:21). Thus, the relocation was designed to better accommodate traffic flow into the city. In spring of 1957, construction began on the highway relocation of US Hwy 61 from Davenport to the top of Blue Grass Hill. The bridge was constructed by McCarthy Improvement Company of Davenport for \$358,358 (*Davenport Morning Democrat* Nov. 14, 1958:21). On November 14, 1958, the new highway, named the River Street Expressway, was dedicated with a ribbon cutting ceremony and a 50-car motorcade from Davenport to Blue Grass (*Davenport Morning Democrat* Nov. 14, 1958:1).

The US 61 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 61 relocation does not appear to have been the direct cause of significant development or major changes in land use in Davenport. Aerial photographs from the 1950s, 1960s, and 1990s show large residential and commercial developments on the north and west sides of the city, near Interstates 80 and 74. Starting the early 1960s light industrial businesses developed on either side of the relocated highway between the railroad and Rockingham Road. The industrial area expanded south as Interstate 280 was constructed. Lastly, the bridge was not part of a major state highway project as it was only a 3.8 mile segment. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

US 61 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 46880; *Davenport Morning Democrat* 1958; Design for Multiple Span Overhead Crossing at Intersection of US Hwy 61 & C.R.I.&P. Railway, ISHC, April 1956.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 48710

LOCATION

EB US 30 over Duff Avenue

Story County, Iowa

S: 14 T: 83N R: 24W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 64

total length:214

roadway wdt: 43

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete girders; concrete guardrails

Carrying Eastbound US Hwy. 30 over US 69/Duff Avenue in Ames, this four-span 214' by 43' double bridge was constructed in 1963. Concrete piers support prestressed concrete girders and a concrete cast-in-place deck. The bridge was part of the relocation of US Highway 30 from east of State Center to Ogden. Construction of the overpass and relocated US 30 at US 69 in Ames began in April 1963. The contract for the bridge construction was awarded to Christensen Brothers Company of Cherokee for \$165,250. A four-lane road was also to be constructed from relocated US 30 to Ames (now known as Duff Avenue).

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over Duff Avenue does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Prestressed Concrete Stringer Bridge type.

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48710; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 30 Bridge

FHWA: 48720

LOCATION

WB US 30 over Duff Ave.

Story County, Iowa

S: 14 T: 83N R: 24W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 64

total length:214

roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Prestressed concrete girders; concrete guardrails

Carrying Westbound US Hwy. 30 over US 69/Duff Avenue in Ames, this four-span 214' by 30' double bridge was constructed in 1963. Concrete piers support prestressed concrete girders and a concrete cast-in-place deck. The bridge was part of the relocation of US Highway 30 from east of State Center to Ogden. Construction of the overpass and relocated US 30 at US 69 in Ames began in April 1963. The contract for the bridge construction was awarded to Christensen Brothers Company of Cherokee for \$165,250. A four-lane road was also to be constructed from relocated US 30 north to Ames (now known as Duff Avenue).

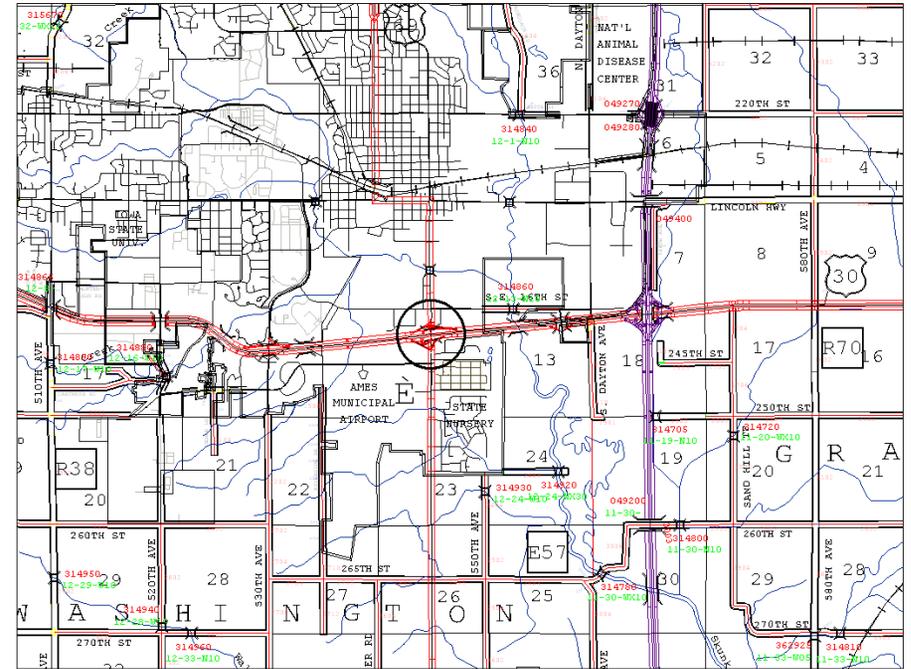
In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over Duff Avenue does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Prestressed Concrete Stringer Bridge type.

NAME(S) OF STRUCTURE
WB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48720; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 48730

LOCATION

EB US 30 over Skunk River

Story County, Iowa

S: 13 T: 83N R: 24W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 125

total length: 325

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Steel continuous I-girders; concrete guardrails

Carrying Eastbound US Hwy. 30 over the South Skunk River east of Ames, this three-span 325' by 30' double bridge was constructed in 1963. Concrete piers support steel continuous welded I-girders with floorbeams. In 1963, the contract for construction of the bridge was awarded to Welden Bros., Inc. of Iowa Falls on a low bid of \$260,219.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over the Skunk River does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Welded I-Girder w/Floorbeams Bridge type.

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48730; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 30 Bridge

FHWA: 48740

LOCATION

WB US 30 over Skunk River

Story County, Iowa

S: 13 T: 83N R: 24W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 125

total length: 325

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Steel continuous I-girders; concrete guardrails

Carrying Westbound US Hwy. 30 over the South Skunk River east of Ames, this three-span 325' by 30' double bridge was constructed in 1963. Concrete piers support steel continuous welded I-girders with floorbeams. The contract for construction of the bridge was awarded to Welden Bros., Inc. of Iowa Falls on a low bid of \$260,219.

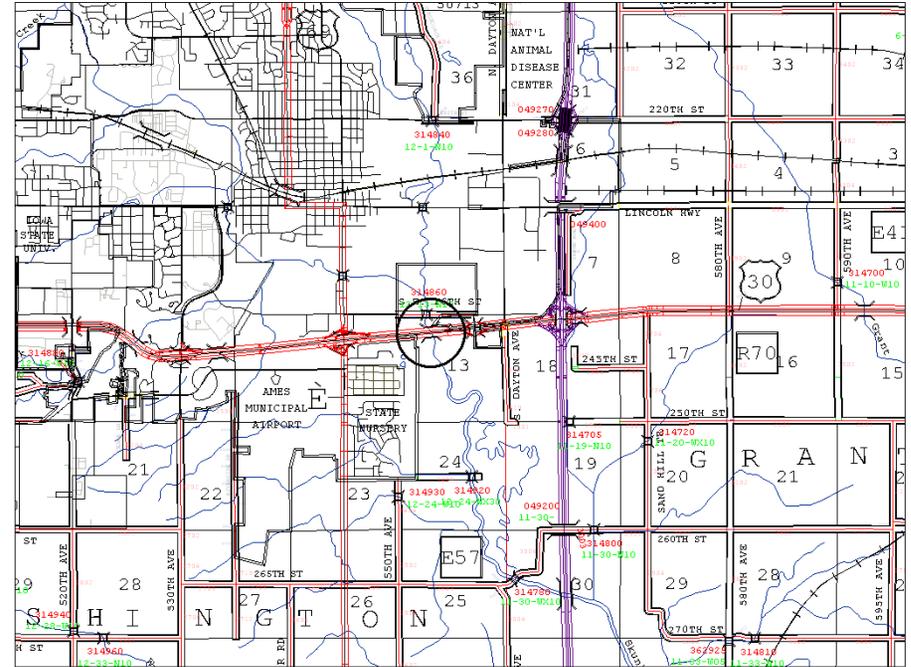
In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The WB US 30 bridge over the Skunk River does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Welded I-Girder w/Floorbeams Bridge type.

NAME(S) OF STRUCTURE
WB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Story County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48740; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 48780

LOCATION

EB US 30 over Grant Creek

Story County, Iowa

S: 15 T: 83N R: 23W

DATE(S) OF CONSTRUCTION

1964

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 31

total length:82

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Continuous Concrete Slab

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This three-span 82' by 30' concrete bridge was constructed in 1964 and carries Eastbound US 30 over Grant Creek between Ames and Nevada. Concrete piers support a concrete continuous slab and cast-in-place decking.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over Grant Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Continuous Concrete Slab bridge type.

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48780; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 48790

LOCATION

EB US 30 over UP Railroad

Story County, Iowa

S: 13 T: 83N R: 23W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 78

total length:206

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete girders; concrete guardrails

This three-span 206' by 30' double bridge carries Eastbound US 30 over the Union Pacific railroad on the western outskirts of Nevada. Concrete piers support concrete girders and cast-in-place decking.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over the UP Railroad does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Stringer/Beam/Girder bridge type.

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48790; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 30 Bridge

FHWA: 48800

LOCATION

WB US 30 over UP Railroad

Story County, Iowa

S: 13 T: 83N R: 23W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 78

total length:206

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete girders; concrete guardrails

This three-span 206' by 30' double bridge carries Westbound US 30 over the Union Pacific railroad on the western outskirts of Nevada. Concrete piers support concrete girders and cast-in-place decking.

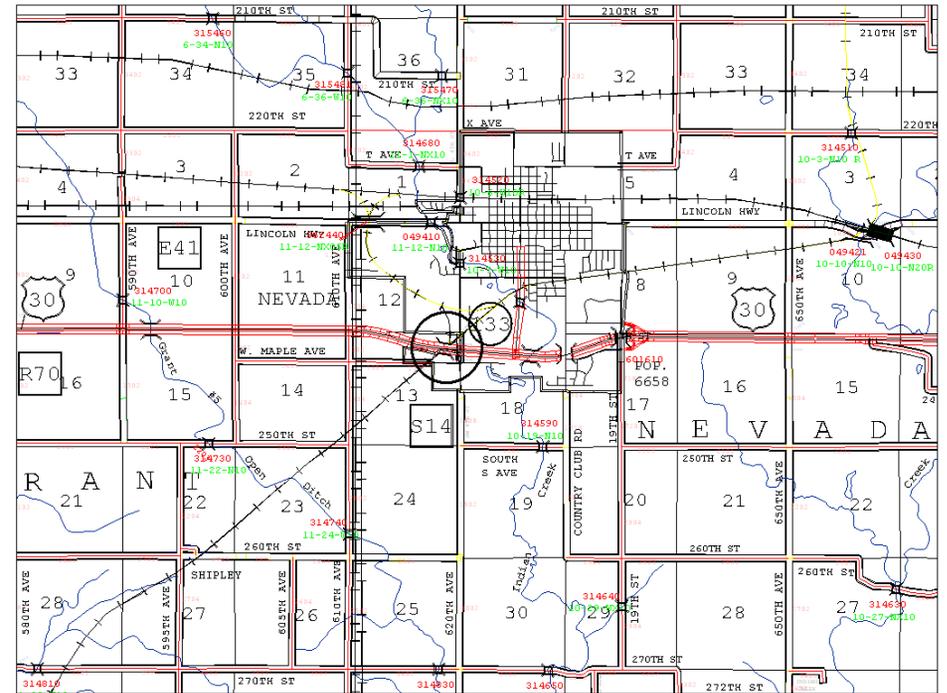
In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

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The WB US 30 bridge over the UP Railroad does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Stringer/Beam/Girder bridge type.

NAME(S) OF STRUCTURE
WB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48800; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 30 Bridge

FHWA: 48810

LOCATION

EB US 30 over W. Br. Indian Creek

S: 18 T: 83N R: 22W

Story County, Iowa

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 74

total length: 196

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous girders; concrete guardrails

This three-span 196' by 30' double bridge carries Eastbound US 30 over the West Branch of Indian Creek in Nevada. Concrete piers support steel continuous girders and cast-in-place decking.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The EB US 30 bridge over West Branch of Indian Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Stringer/Beam/Girder bridge type.

NAME(S) OF STRUCTURE

EB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48810; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 30 Bridge

FHWA: 48820

LOCATION

WB US 30 over W. Br. Indian Creek

S: 18 T: 83N R: 22W

Story County, Iowa

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 74

total length: 196

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel continuous girders; concrete guardrails

This three-span 196' by 30' double bridge carries Westbound US 30 over the West Branch of Indian Creek in Nevada. Concrete piers support steel continuous girders and cast-in-place decking.

In February 1960, the ISHC announced plans for a new alignment of Highway 30 from Marshalltown to Ames that would bypass State Center, Colo, Nevada, and Ames. The relocated route would extend to Ogden, bypassing the town of Boone as well. Opposition to the new route from businessmen in the aforementioned towns was strong, as they felt their businesses would suffer from the decrease in traffic. The ISHC gave four reasons for the relocated route: "reduced vehicle operating cost, time saved, comfort and convenience" (*Ames Daily Tribune* 1960c:1). ISHC engineers also cited the heavy truck traffic on Highway 30 and the decline in the number of accidents that would result in the highway relocation. By September 1960, businessmen had formed a group called, The League, and had commissioned a study by the Real Estate Research Corporation of Chicago to study the potential effects that the relocated route would have on businesses and the bypassed towns in general (*Cedar Rapids Gazette* 1960d:1A). After conducting a number of public hearings along the entire route, as required to receive federal aid for the project, the ISHC proceeded with the relocation plan in December 1960. In August 1964, the relocated US 30 from Ames to Colo, 13.5 miles of the 50-mile relocation, was officially opened.

In the 1950s safety concerns prompted the straightening of dangerous curves and the installation of truck-climbing lanes on long hills. By the end of the decade, the ISHC began to relocate major state highways to straighten curved, hilly, and dogleg routes—some work was done to provide better traffic flow with the new interstate highway system. In fiscal year 1958/1959, the ISHC was relocating sections of major U.S. highways including U.S. 30, 20, 169, 218 and 34. Some highways were relocated to the outskirts of town to eliminate congestion within downtown areas. These "urban relief routes" were contemplated as early as 1938 in Waterloo where several "high volume" highways converged in the downtown area causing chronic traffic problems. By 1955, the ISHC adopted "extensive employment of by-pass highways in the vicinity of cities and towns" (ISHC 1956a:4).

The WB US 30 bridge over West Branch of Indian Creek does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. While the relocated US 30 from Ames to Colo undoubtedly changed each of the towns in various ways, it does not appear that the new route was the direct cause of significant development or major changes in land use in the towns of Colo, Nevada, or Ames. In Nevada, residential and commercial development occurred on all sides of city. Only two residential developments were built along the new highway. In Ames, large residential developments occurred on the north and west sides of the city. The only significant development near the new highway was the Iowa State Center, which had been conceived of in its current location as early as 1948. Very little development has occurred in Colo as a result of the highway construction. The current highway followed the alignment of an existing road south of town. Lastly, the bridge was part of a major state highway project; however, the bridge itself does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the Steel Continuous Stringer/Beam/Girder bridge type.

NAME(S) OF STRUCTURE

WB US 30 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 48820; *Ames Daily Tribune* 1960-1964; Iowa State Center, Manuscript Collection, Parks Library, Iowa State University.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Side Road of US 34

FHWA: 50450

LOCATION

Side Road over Bear Creek

Wapello County, Iowa

S: 23 T: 72N R: 14W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 49

total length:127

roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Conc Continuous Slab

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete and metal guardrails

Carrying US Hwy. 34 over Break Creek in Ottumwa, this three-span 127' by 27.9' bridge was constructed in 1963. Concrete piers support steel girders and a cast-in-place deck.

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenber Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The Side Road bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: concrete continuous slab. The bridge did not meet any of the Registrations Requirements for Type 201 bridges.

NAME(S) OF STRUCTURE

Side Road of US 34

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50450; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 34 Bridge

FHWA: 50460

LOCATION

EB US 34 over Church Street

Wapello County, Iowa

S: 25 T: 72N R: 14W

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 69

total length:158

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This three-span 158' by 30' double bridge carries Eastbound US 30 over Church Street in Ottumwa. Concrete piers support prestressed concrete girders and a cast-in-place deck. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

EB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50460; Ottumwa Courier 1965-1967; "Plaque Presented to Chief Engineer Clauson, Hiway Hilites, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge
FHWA: 50470

LOCATION

WB US 34 over Church Street
Wapello County, Iowa

S: 25 T: 72N R: 14W

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 69
total length: 158
roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This three-span 158' by 30' double bridge carries Westbound US 30 over Church Street in Ottumwa. Concrete piers support prestressed concrete girders and a cast-in-place deck. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

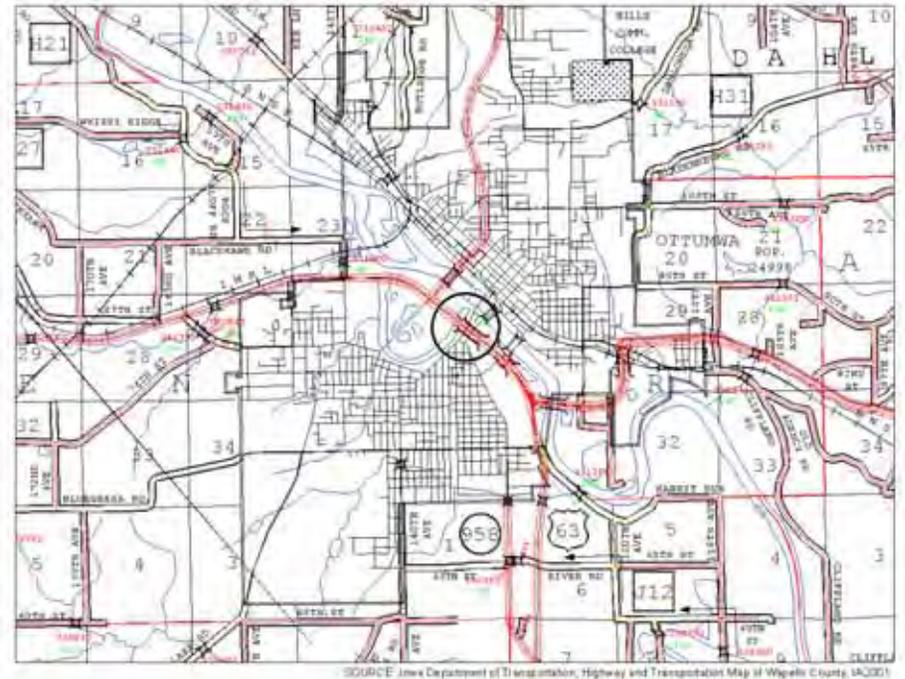
As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1). The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50460; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 34 Bridge
FHWA: 50480

LOCATION

EB US 34 over Bardell Street
Wapello County, Iowa

S: 25 T: 72N R: 14W

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 73
total length:162
roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete and metal guardrails

Carrying Eastbound 34 and Southbound 63 over Bardell Street, this three-span 162' by 30' bridge was constructed in 1966. Concrete piers support prestressed concrete girders and cast-in-place decking. In August 1965, Jensen Brothers Construction Company of Des Moines received the \$118,080 contract to construct the dual US 34 bridges over Bardell Street (*Ottumwa Courier* August 17, 1965:10). The bridges were completed by May 17, 1966 (*Ottumwa Courier* May 17, 1966:7).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

EB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50480; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge
FHWA: 50490

LOCATION

WB US 34 over Bardell Street
Wapello County, Iowa

S: 25 T: 72N R: 14W

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 73
total length:162
roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete and metal guardrails

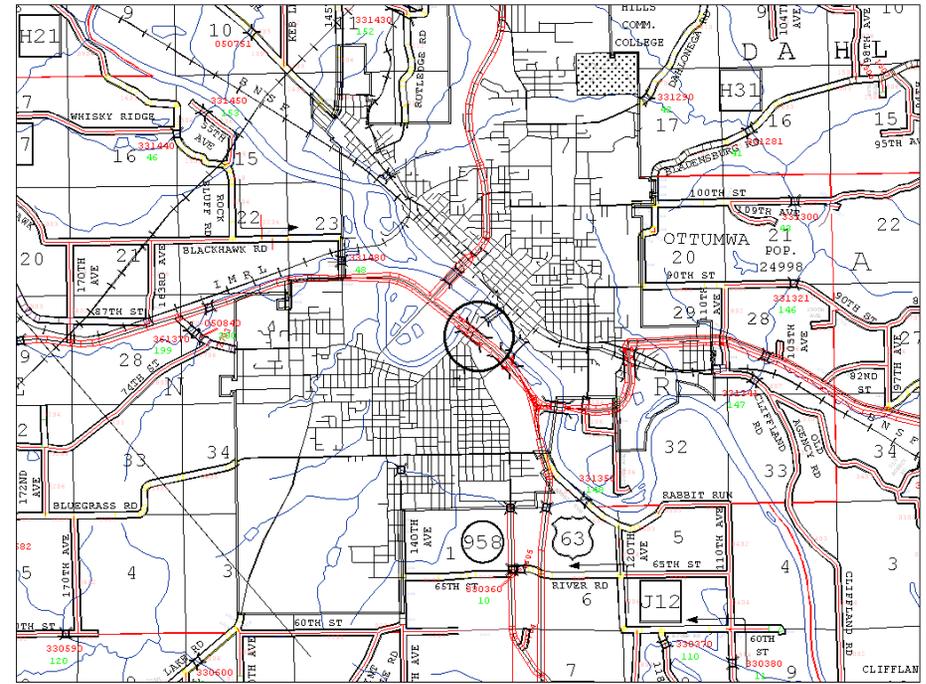
Carrying Westbound 34 and Northbound 63 over Bardell Street, this three-span 162' by 30' bridge was constructed in 1966. Concrete piers support prestressed concrete girders and cast-in-place decking. In August 1965, Jensen Brothers Construction Company of Des Moines received the \$118,080 contract to construct the dual US 34 bridges over Bardell Street (*Ottumwa Courier* August 17, 1965:10). The bridges were completed by May 17, 1966 (*Ottumwa Courier* May 17, 1966:7).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50490; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 34 Bridge

FHWA: 50500

LOCATION

EB US 34 Bridge over Abandoned RR

S: 25 T: 72N R: 14W

Wapello County, Iowa

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 59

total length:154

roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This three-span 154' by 27.9' double bridge carries Eastbound US 34 over an abandoned railroad in Ottumwa. Concrete piers support steel continuous girders and cast-in-place decking. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

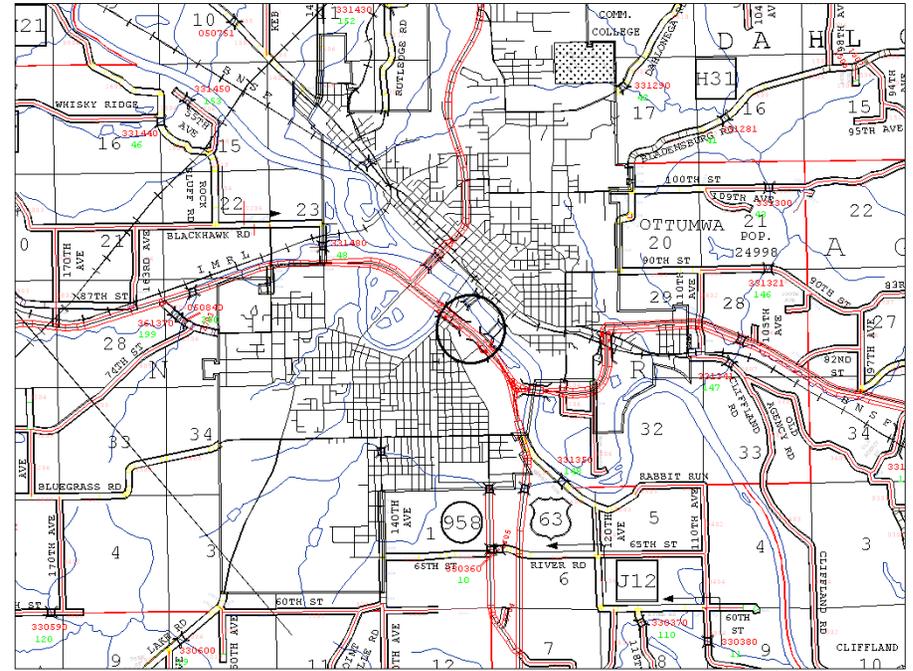
As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

EB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50500; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge

FHWA: 50510

LOCATION

WB US 34 Bridge over Abandoned RR

S: 25 T: 72N R: 14W

Wapello County, Iowa

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 59

total length:154

roadway wdt: 28.2

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This three-span 154' by 28.2' double bridge carries Westbound US 34 over an abandoned railroad in Ottumwa. Concrete piers support steel continuous girders and cast-in-place decking. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50510; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE	DATE(S) OF CONSTRUCTION
EB US 34 Bridge FHWA: 50520	1966
LOCATION EB US 34 Bridge over Vine Street Wapello County, Iowa	USE (ORIGINAL/CURRENT) Roadway bridge / Roadway bridge
	RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 69
total length:154
roadway wdt: 27.9**OWNER:**

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This three-span 154' by 27.9' bridge carries Eastbound US 34 over Vine Street in Ottumwa. It was constructed in 1966 and features concrete piers and prestressed concrete girders. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

EB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE Iowa Department of Transportation, Highway and Transportation Map of Wapello County, IA-2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50520; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge
FHWA: 50530

LOCATION

WB US 34 Bridge over Vine Street S: 25 T: 72N R: 14W
Wapello County, Iowa

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 69
total length:154
roadway wdt: 28.2

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This three-span 154' by 28.2' bridge carries Westbound US 34 over Vine Street in Ottumwa. It was constructed in 1966 and features concrete piers and prestressed concrete girders. The contract for constructing dual bridges for the US 34/63 relocation at Church Street, Vine Street, and the now abandoned railroad tracks was awarded to Hobe Engineering Company of Sioux City for \$327,157 (*Ottumwa Courier* July 14, 1965:1). Construction on the Church Street bridges began around July 21, 1965.

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: prestressed concrete stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50530; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 34 Bridge
FHWA: 50540

LOCATION

US 34 over DSM River
Wapello County, Iowa

S: 31 T: 72N R: 13W

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 6
span length: 135
total length: 755
roadway wdt: 25.9

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete and metal guardrails

This six-span 755' by 25.9' double bridge carries US 34 over the Des Moines River in Ottumwa. Concrete piers support steel continuous welded I-girders with floorbeams and cast-in-place decking. The contract for the bridge construction was given to the Brogan Construction Company of Des Moines for \$489,275 (*Ottumwa Courier* July 14, 1965:1). Construction began in October 1965 after several months of delay due to flooding (*Ottumwa Courier* October 8, 1965:1).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1). The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous Welded I-girder w/floorbeams. The bridge did not meet any of the Registrations Requirements for Type 432 bridges.

NAME(S) OF STRUCTURE

US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50540; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 34 Bridge
FHWA: 50545

LOCATION

US 34 over DSM River
Wapello County, Iowa

S: 31 T: 72N R: 13W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 6
span length: 135
total length: 755
roadway wdt: 25.9

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Floorbeams (2 Girders)
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete and metal guardrails

This six-span 755' by 25.9' double bridge carries US 34 over the Des Moines River in Ottumwa. Concrete piers support steel continuous welded I-girders with floorbeams and cast-in-place decking. The contract for the bridge construction was given to the Brogan Construction Company of Des Moines for \$489,275 (*Ottumwa Courier* July 14, 1965:1). Construction began in October 1965 after several months of delay due to flooding (*Ottumwa Courier* October 8, 1965:1).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1). The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous Welded I-girder w/floorbeams. The bridge did not meet any of the Registrations Requirements for Type 432 bridges.

NAME(S) OF STRUCTURE

US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50545; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 34 Bridge

FHWA: 50550

LOCATION

EB US 34 over BNSF Railroad

Wapello County, Iowa

S: 29 T: 72N R: 13W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 8
span length: 74
total length:473
roadway wdt: 28**OWNER:**

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This eight-span 473' by 28' double bridge carries Eastbound US 34 over the Burlington Northern Santa Fe (BNSF) Railway in Ottumwa. Concrete piers support steel continuous girders and cast-in-place decking. Hanson Construction Company of Washington, Iowa was awarded a \$441,668 contract in December 1966 to construct both the EB and WB bridges over the BNSF Railroad (*Ottumwa Courier* Dec. 8, 1966:1).

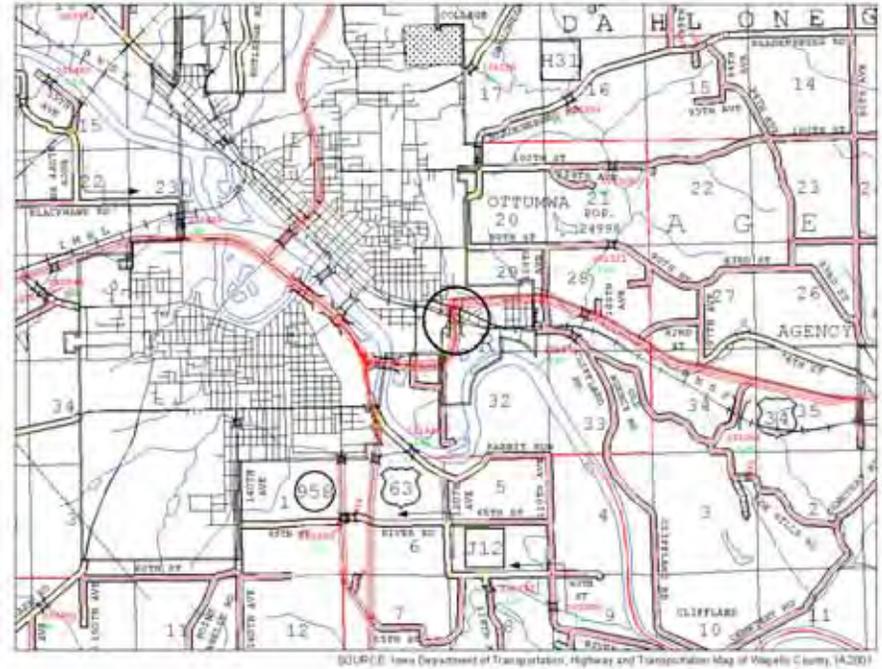
As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

EB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50550; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge

FHWA: 50560

LOCATION

WB US 34 over BNSF Railroad

S: 29 T: 72N R: 13W

Wapello County, Iowa

DATE(S) OF CONSTRUCTION

1968

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 8
span length: 74
total length:473
roadway wdt: 28**OWNER:**

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This eight-span 473' by 28' double bridge carries Eastbound US 34 over the Burlington Northern Santa Fe (BNSF) Railway in Ottumwa. Concrete piers support steel continuous girders and cast-in-place decking. Hanson Construction Company of Washington, Iowa was awarded a \$441,668 contract in December 1966 to construct both the EB and WB bridges over the BNSF Railroad (*Ottumwa Courier* Dec. 8, 1966:1).

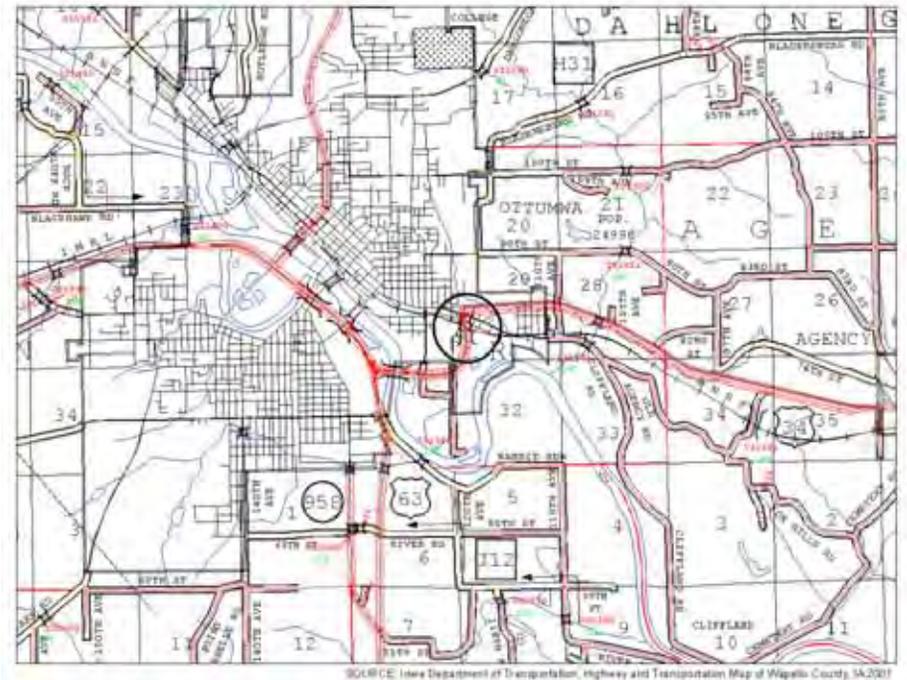
As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: steel continuous stringer, beam, or girder. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50560; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Main Street Bridge

FHWA: 50570

LOCATION

Main St. over US 34

Wapello County, Iowa

S: 29 T: 72N R: 13W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 55

total length:183

roadway wdt: 40

OWNER:

Iowa Department of Transportation

superstructure: Conc Continuous Slab

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Pedestrian walkway w/ chain link fence

This four-span 183' by 40' bridge carries Main Street over US 34 in Ottumwa. Concrete piers support a continuous concrete slab with cast-in-place decking. The bridge was part of an extensive new freeway system that included relocations of U.S. Highways 34 and 63. The \$109,670 contract for the bridge's construction was let to Hanson Construction Company of Washington, Iowa in October 1966 (*Ottumwa Courier* October 13, 1966:1). The bridge was completed and opened to traffic on May 18, 1967 (*Ottumwa Courier* May 18, 1967:8).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenberg Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1).The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The Main Street Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 63/34 relocations do not appear to have been the direct cause of significant development or major changes in land use in Wapello. Aerial photographs from the 1950s and 1990s show development on all sides of the city. The Quincy Place Mall was built adjacent to the US 34 relocation along with fast food restaurants and commercial buildings. Indian Hills Community College and Wapello Country Club were constructed on the northeast side of town, almost a half mile east of the new US 63. Most of the residential and commercial development occurred on the southwest and northeast sides of town. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: concrete continuous slab. The bridge did not meet any of the Registrations Requirements for Type 201 bridges.

NAME(S) OF STRUCTURE

Main Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50570; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 63 Bridge
FHWA: 50640

LOCATION

US 63 Bridge over Des Moines River S: 24 T: 72N R: 14W
Wapello County, Iowa

DATE(S) OF CONSTRUCTION

1964

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C, Crit. Cons. G)**CONDITION**

Good

span number: 28
span length: 102
total length: 2319
roadway wdt: 56

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Metal guardrails

This 28-span 2,319' by 56' bridge carries US 63 over the Des Moines River and the Burlington Northern Santa Fe Railway in Ottumwa. Concrete piers support prestressed concrete girders. The project involved the relocation of U.S. Highway 34. In order to relocate the highway, the horseshoe bend of the Des Moines River was bypassed by a straightened channel over which the new bridge spanned. The bridge was designed by ISHC Chief Engineer L. M. Clauson. His design received an award for the most outstanding bridge design in Iowa using pre-stressed concrete (ISHC 1965:33). The 100' long beams in the center spans were the longest pretensioned, pre-stressed concrete beams used in Iowa. The bridge was used by the ISHC to test the camber of pretensioned, pre-stressed concrete beams in the field. Also, for the first time in Iowa, drilled caissons were used in pier construction instead of pile foundations to limit vibration effects to surrounding buildings (ISHC 1965:34). The contract for construction of piers 2-12 was awarded on October 3, 1961 to Jensen Brothers Construction Company of Des Moines for \$186,730. The remainder of the bridge construction was let to the same company on April 3, 1963 for \$1,389,295 (ISHC 1965:34).

As early as 1949, the ISHC was conducting traffic studies in Ottumwa to determine the principal routes of traffic and needs of residents in and around that city. The spatial relationship between the Des Moines River, railroads, downtown area, entrances into the city, and the steep topography made planning for highway improvements a challenge (ISHC 1949:1-2). The study recommended the relocation of U.S. Highway 63 and 34 and Iowa Highway 15 (ISHC 1949:46). As part of the City's Master Plan, U.S Highway 34 on the east side of the city was relocated to Roemer Avenue in 1954. Ten years later, a new four-lane U.S. Highway 34 was constructed from Church Street in downtown Ottumwa to the western city limits (*Ottumwa Courier* Dec. 12, 1967:1). A new Des Moines River Bridge (FHWA #50640) and Wapello Street Viaduct provided access from the new highway into downtown. In September 1966, the four-lane U.S. 34/63 was completed from Church Street south to Mary Street (*Ottumwa Courier* Sept. 3, 1966:4). Grading for this section of the highway necessitated 1 million cubic yards of fill, which was hauled from the east side of the Des Moines River over a temporary bridge constructed by E. M Dusenbergh Construction Company of Mason City (*Ottumwa Courier* July 14, 1965:1). Eight bridges were constructed along this segment of the highway (FHWA #50460-50530). The last segment of the highway relocation project was U.S. Highway 34 from the newly construction U.S. 34/63 north and east to Roemer Avenue (*Ottumwa Courier* Dec. 12, 1967:1). A second Des Moines River Bridge was constructed in this segment (FHWA #50540). On December 12, 1967, the completed U.S. Highway 34/63 relocation project was dedicated. A crowd of 200 "happy motorists" attended a ceremony on the new Des Moines River Bridge in southeast Ottumwa. The ISHC Vice-Chairman Derby Thompson and Ottumwa Mayor Lafe Dupy attended the dedication, which continued with a luncheon at the Red Lyon Inn (*Ottumwa Courier* Dec. 12, 1967:1). The total cost of the highway relocation project was \$11 million (*Ottumwa Courier* Nov. 11, 1967:1).

The bridge was included in the Phase II survey as it is a large bridge of exceptional span or overall length, which according to the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970 is a prestressed girder span (Type 502) with a span greater than 100' or multiple span bridges with an overall length in excess of 400' in length. The bridge is 2319' long with a main span of 102', which meets both the aforementioned registration requirements for prestressed concrete bridges. As such, the US 63 Bridge is eligible for inclusion in the NRHP under Criteria A and C as it does meet the registration requirements outlined in the MPDF Highway Bridges in Iowa: 1942-1970. Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The bridge used the longest pretensioned, pre-stressed concrete beams used in Iowa.

NAME(S) OF STRUCTURE

US 63 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 50640; *Ottumwa Courier* 1965-1967; "Plaque Presented to Chief Engineer Clauson, *Hiway Hilites*, April 1965; Bridge Blueprints, US34/63 Relocations, February 1963, Iowa State Highway Commission.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

NB US 169 Bridge

FHWA: 52170

LOCATION

NB US 169 over 2nd Ave S

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 86

total length:220

roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

superstructure: Conc Continuous T-Beam

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Aluminum rail

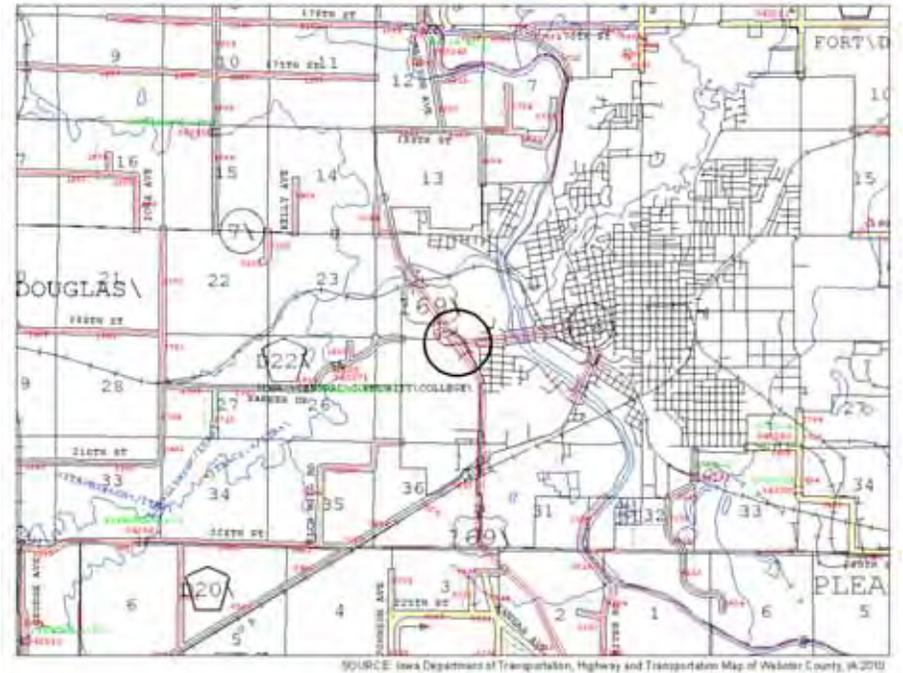
This three-span 220' by 29.8' dual bridge carries Northbound US Hwy. 169 over 2nd Avenue S. in Fort Dodge. It was constructed in 1960 and features concrete piers with 30' treated wood pilings, continuous concrete T-beams and cast-in-place decking. The bridge is set at a 27 degree skew.

The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Hwy 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The NB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
NB US 169 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52170; Fort Dodge Messenger & Chronicle June-December 1960.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

SB US 169 Bridge

FHWA: 52180

LOCATION

SB US 169 over 2nd Ave S

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 86

total length: 220

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Conc Continuous T-Beam

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Aluminum rail

This three-span 220' by 30.1' dual bridge carries Southbound US Hwy. 169 over 2nd Avenue S. in Fort Dodge. It was constructed in 1960 and features concrete piers with 30' treated wood pilings, continuous concrete T-beams and cast-in-place decking. The bridge is set at a 27 degree skew.

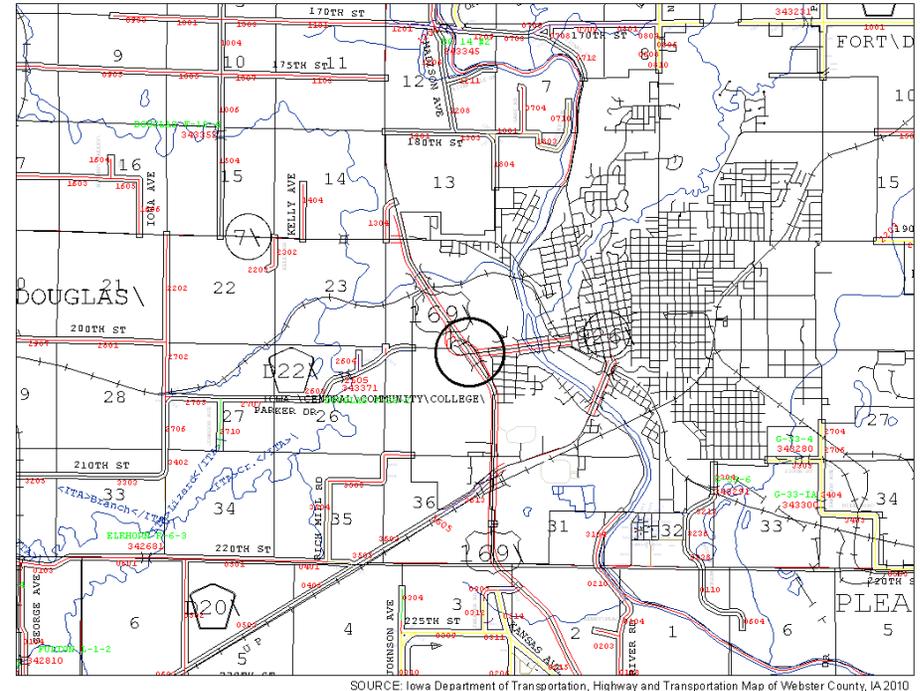
The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Hw 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The SB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

SB US 169 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52180; Fort Dodge Messenger & Chronicle June-December 1960.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

NB US 169 Bridge

FHWA: 52190

LOCATION

NB US 169 over CC&P RR

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 52

total length: 158

roadway wdt: 29.8

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

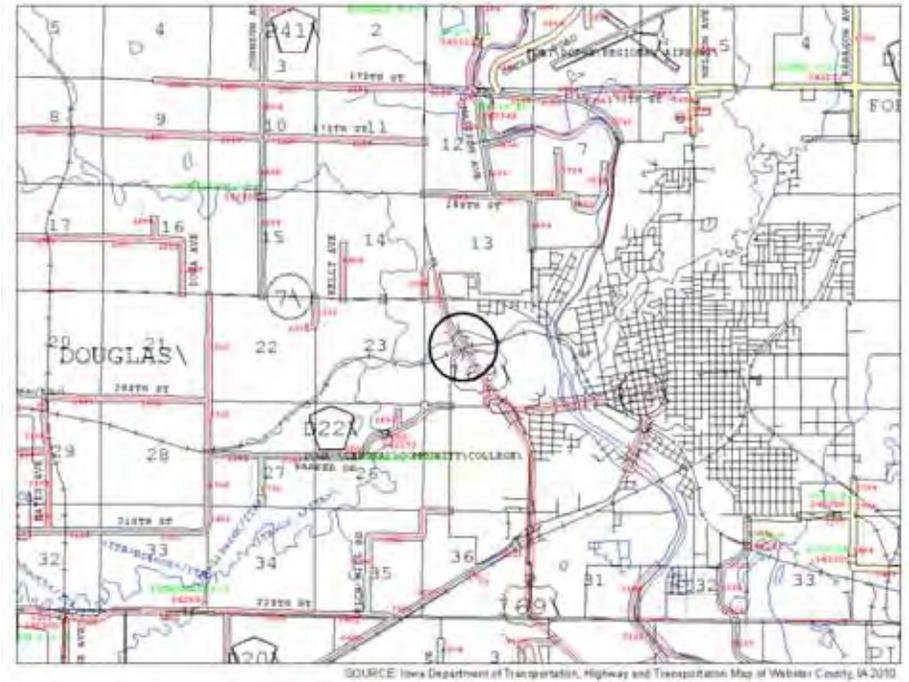
This three-span 158' by 29.8' dual bridge carries Northbound US Hwy. 169 over the Chicago, Central and Pacific (CC) railroad in Fort Dodge. It was constructed in 1960 and features concrete piers, prestressed concrete girders and cast-in-place decking. The bridge is set at a 12 degree skewangle and the deck is 25' above the railroad bed.

The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Hw 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The NB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
NB US 169 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52190; Fort Dodge Messenger & Chronicle June-December 1960.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

SB US 169 Bridge

FHWA: 52200

LOCATION

SB US 169 over CC&P RR

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 52

total length: 158

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

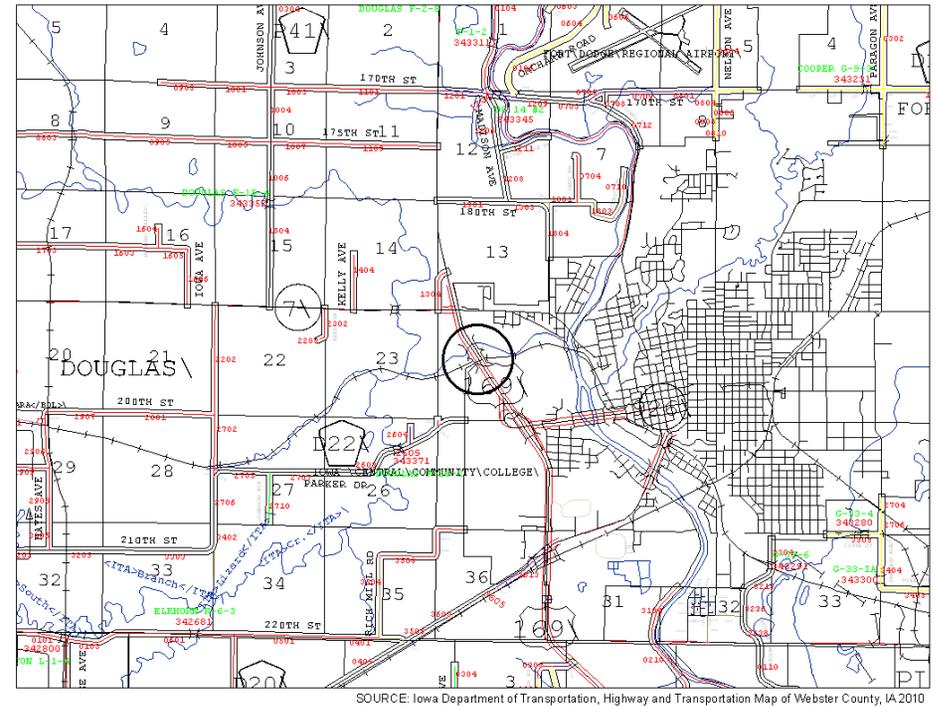
This three-span 158' by 29.8' dual bridge carries Southbound US Hwy. 169 over the Chicago, Central and Pacific (CC) railroad in Fort Dodge. It was constructed in 1960 and features concrete piers, prestressed concrete girders and cast-in-place decking. The bridge is set at a 12 degree skewangle and the deck is 25' above the railroad bed.

The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Hw 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The SB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE
SB US 169 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52200; *Fort Dodge Messenger & Chronicle* June-December 1960.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

NB US 169 Bridge

FHWA: 52210

LOCATION

NB US 169 over Lizard Creek

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 5

span length: 80

total length: 413

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This five-span 413' by 30' dual bridge carries Northbound US Hwy. 169 over Lizard Creek in Fort Dodge. It was constructed in 1960 and features concrete piers, prestressed concrete girders and cast-in-place decking.

The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Hw 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The NB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

SB US 169 Bridge

FHWA: 52220

LOCATION

SB US 169 over Lizard Creek

Webster County, Iowa

S: 24 T: 89N R: 29W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 5

span length: 80

total length: 413

roadway wdt: 30.1

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This five-span 413' by 30' dual bridge carries Southbound US Hwy. 169 over Lizard Creek in Fort Dodge. It was constructed in 1960 and features concrete piers, prestressed concrete girders and cast-in-place decking.

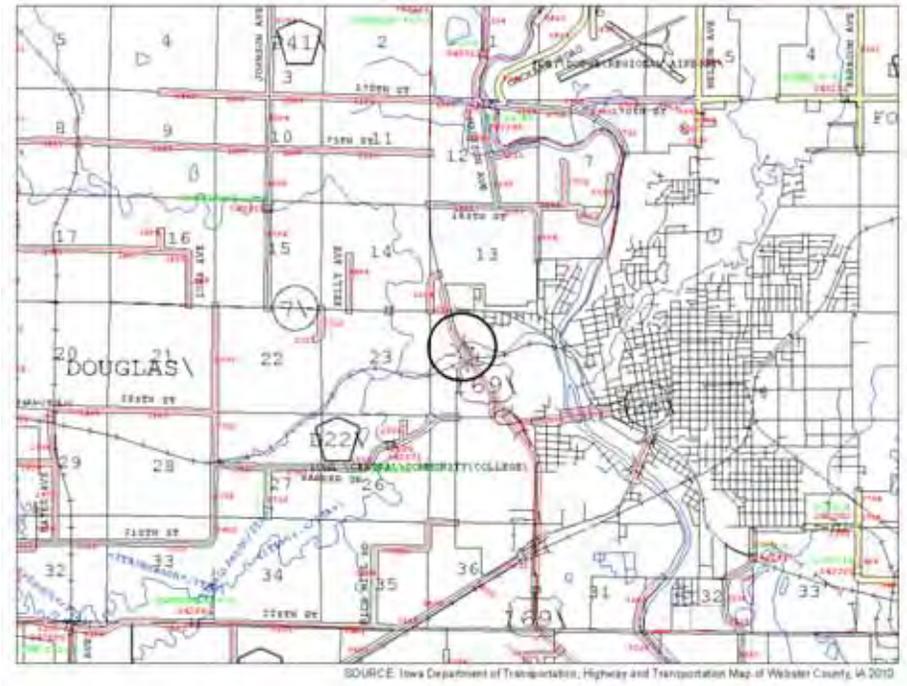
The relocation of US Highway 169 and IA Highway 5 to the west side of Fort Dodge began early in 1958. The purpose of the new route was to relieve traffic in the center of the city and to provide an improved entrance into the city on IA Highway 5 into the city (IDOT Annual Report 1958/59:7). The 10-mile long relocation project cost almost \$4 million, the bulk of which went to construction of bridges and culverts. Three and a half miles of the project had a double lane divided highway, creating five paired bridges along that stretch of road, all of which were designed by Lechner Engineering of Ames according to ISHC standards. By July 1960, most of the bridges along the route were completed or almost completed. The relocated route was formally dedicated on December 7, 1960 with a ribbon cutting ceremony and luncheon (*Fort Dodge Messenger and Chronicle* 1960).

The SB US 169 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 169 bypass does not appear to have been the direct cause of significant development or major changes in land use in Fort Dodge. A large area west of the Des Moines River had been developed into housing as early as the turn of the century. The Trinity Lutheran Hospital had been established along Kenyon Road in the 1920s. The Iowa Central Community College was established along Kenyon Road in 1966. Both of these institutions were greatly expanded in the 1960s. Very little additional development occurred as a result of the new bypass, mostly along Kenyon Road and State Highway 7. Most of the residential and commercial development occurred on the northeast and east sides of town from the 1950s to the 1990s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

SB US 169 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52220; *Fort Dodge Messenger & Chronicle* June-December 1960.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

US 52 Bridge

FHWA: 52540

LOCATION

US 52 over Dry Run Creek

Winneshiek County, Iowa

S: 20 T: 98N R: 8W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 84

total length:103

roadway wdt: 30.2

OWNER:

Iowa Department of Transportation

superstructure: Conc Arch Deck (w/no fill over top)

substructure: Reinforced concrete arch

floor/decking: Concrete Cast-in-place

other features: Aluminum rail, concrete rail

This 83' by 30' open spandrel arch bridge carries US Highway 52 over Dry Run Creek in Decorah. Constructed in 1963, the bridge features reinforced concrete arches set directly into the limestone walls of the creek and cast-in-place decking. The original aluminum handrails, concrete abutments, and stone columns remain intact. An additional concrete railing has been added in the interior of the aluminum railing. In 1981, the concrete deck of the bridge was repaired. The bridge was designed by ISHC Engineer Paul F. Barnard in February 1962.

Relocation of US Highway 52 in Decorah was announced in November 1961 in the ISHC five-year construction plan. As early as January 1962, ISHC announced plans for the relocated highway that included the open spandrel concrete arch bridge. At the time, the ISHC declared it was the only one of its kind in the state. The bridge was unique as it was to be set halfway down the 110' rock cut at a 45 degree skew angle (*Waterloo Sunday Courier*, March 4, 1962:9). The bridge was featured on the cover of of the 1964 official state highway map. In September 1962, businessmen from numerous towns in northeast Iowa formed the Highway 52 Club to advocate improvements along the highway (*Decorah Public Opinion* Sept. 24, 1962:1). Contracts for the relocation were let on November 7, 1962. Weldon Brothers of Iowa Falls was given the contract for the concrete arch bridge. Work on preparing the limestone cut for the bridge progressed through early 1963. On June 16, 1964, the relocated highway was opened to traffic (*Waterloo Daily Courier*, June 16, 1964:12).

The US 52 bridge was included in the Phase II survey as it is an exceptional example of a concrete, open spandrel arch bridge designed by ISHC Engineer Paul F. Barnard and as an architecturally designed bridge of recognized aesthetic importance. The bridge is also a unique design for its type, being set halfway down the rock cut and at a 45 degree angle. As such, the US 52 Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet the registration requirements outlined in the MPDF Highway Bridges in Iowa: 1942-1970. Though, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The bridge is the most picturesque and unique open spandrel bridges in Iowa.

NAME(S) OF STRUCTURE

US 52 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design for 84'x30' Open Spandrel Concrete Arch Bridge, ISHC, 1962; *Decorah Public Opinion*, 1961-1963; *Waterloo Daily Courier* 1962-1964.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

IA 9 Bridge
FHWA: 52590

LOCATION

IA 9 over Division Street
Winneshiek County, Iowa

S: 21 T: 98N` R: 8W

DATE(S) OF CONSTRUCTION

1969

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3
span length: 64
total length:163
roadway wdt: 61

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder
substructure: Reinforced concrete piers
floor/decking: Concrete Cast-in-place
other features: Concrete guardrails

This three-span 163' by 61' bridge carries Iowa Highway 9 over Division Street in Decorah. Constructed in 1969, the bridge features concrete piers, prestressed concrete girders and cast-in-place decking. The center span is 56' long; while the approach spans are 39' and 64' long. The bridge was designed by the ISHC in November 1967.

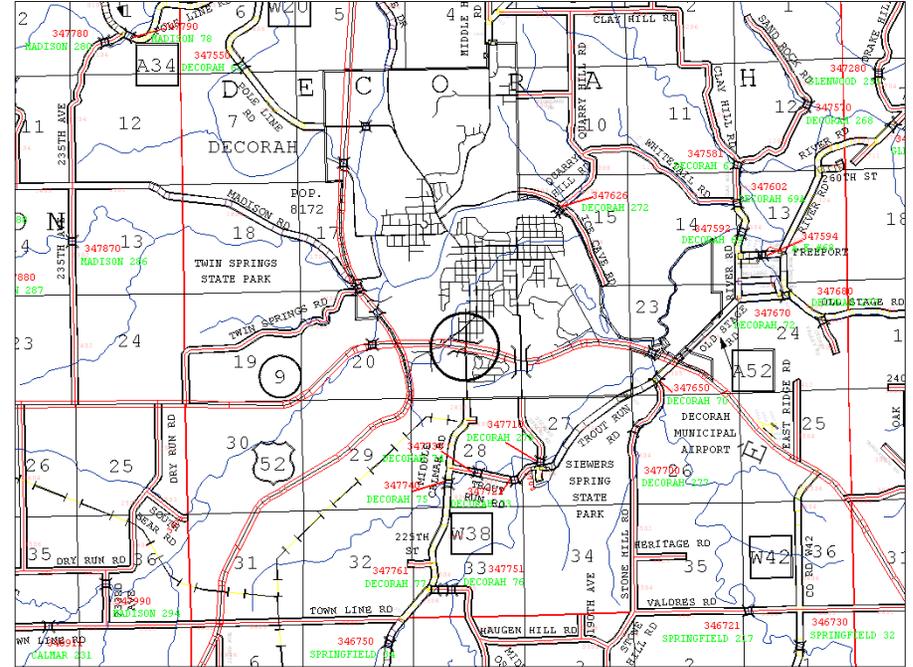
In fall 1967, ISHC proposed a bypass of Iowa Highway 9 around Decorah. Contracts for the bypass were awarded on May 28, 1968. Christianson Brothers of Cherokee were awarded \$306,984 for three bridge construction contracts. Brennon Construction Company of Lansing was awarded \$206,993 in contracts for two bridges (*Decorah Public Opinion* June 3, 1968:1). Construction on the bypass began on June 17, 1968 with grading and bridge construction. Though the road was scheduled to open in October 1969, a dispute regarding a railroad crossing held up opening of the entire bypass until early 1970.

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of Iowa Highway 9. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The IA Highway 9 bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway bypass does not appear to have been the direct cause of significant development or major changes in land use in Decorah. The city saw growth on all sides including a new high school on the north, expansion of Luther College, a new medical center on the southeast side, and commercial development at the juncture of IA Highway 9 and Trout Run Road. A fairly large residential area developed south of the bypass in the 1970s through the 1980s. An industrial/commercial area was already starting to develop near the current junction of US 52 and the bypass in the late 1950s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Prestressed Concrete Stinger, Multi-beam or Girder. The bridge did not meet any of the Registrations Requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

IA 9 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Winnebago County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52590; *Decorah Public Opinion* 1967-1969.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Pleasant Avenue Bridge

FHWA: 52600

LOCATION

Pleasant Avenue over IA 9

Winneshiek County, Iowa

S: 21 T: 98N R: 8W

DATE(S) OF CONSTRUCTION

1969

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 90

total length: 214

roadway wdt: 32

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Stringer/Beam/Girder

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This three-span 214' by 32' bridge carries Pleasant Avenue over Iowa Highway 9 in Decorah. The center span is 90' long while the end spans are 48' and 71'. Concrete piers support steel continuous girders and cast-in-place decking. The bridge was designed by ISHC in February 1968 and constructed in 1969.

In fall 1967, ISHC proposed a bypass of Iowa Highway 9 around Decorah. Contracts for the bypass were awarded on May 28, 1968. Christianson Brothers of Cherokee were awarded \$306,984 for three bridge construction contracts. Brennon Construction Company of Lansing was awarded \$206,993 in contracts for two bridges (*Decorah Public Opinion* June 3, 1968:1). Construction on the bypass began on June 17, 1968 with grading and bridge construction. Though the road was scheduled to open in October 1969, a dispute regarding a railroad crossing held up opening of the entire bypass until early 1970.

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of Iowa Highway 9. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The Pleasant Avenue bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The IA Highway bypass does not appear to have been the direct cause of significant development or major changes in land use in Decorah. The city saw growth on all sides including a new high school on the north, expansion of Luther College, a new medical center on the southeast side, and commercial development at the juncture of IA Highway 9 and Trout Run Road. A fairly large residential area developed south of the bypass in the 1970s through the 1980s. An industrial/commercial area was already starting to develop near the current junction of US 52 and the bypass in the late 1950s. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: Steel Continuous Stringer/Beam/Girder. The bridge did not meet any of the Registrations Requirements for Type 402 bridges.

NAME(S) OF STRUCTURE

Pleasant Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Winnebago County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52600; *Decorah Public Opinion* 1967-1969.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 20 Bridge

FHWA: 52850

LOCATION

EB US 20 over Little Whiskey Creek

S: 33 T: 89N R: 46W

Woodbury County, Iowa

DATE(S) OF CONSTRUCTION

1959

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 46

total length:122

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Continuous Concrete Slab

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete rails

This three-span 122' by 28' bridge features a continuous concrete slab superstructure and cast-in-place decking. Carrying Eastbound US 20 over Little Whiskey Creek between Sioux City and Lawton, this bridge was designed in November 1958 by ISHC and built in 1959. The bridge has a 46' center span and 37' end spans. Both the piers and abutments are supported with creosoted wood piling. The channel of Little Whiskey Creek was straightened for the new crossing. The bridge is set at a 30 degree skew.

In July 1950, the ISHC were completing plans to relocate a 14-mile long stretch of Highway 20 to eliminate "sharp and treacherous curves" (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects in the ISHC five-year construction program (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c).

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 20. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The highway relocation does not appear to have been the direct cause of significant development or major changes in land use in Lawton, the only town located along the new route. Aerial photographs from the 1950s and 1990s indicate that the town saw limited residential growth on all sides and some commercial development on the north side of the highway. A small residential development was constructed south of the bypass in the 1970s through the 1980s. Given these facts, LBG concludes that the EB US 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Lawton. The bridge does not meet any of the other registration requirements for Type 201 bridges. The bridge does not meet any of the other registration requirements for Type 201 bridges.

NAME(S) OF STRUCTURE

EB US 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52850; Design for Continuous Concrete Slab Bridge, November 1958, ISHC; *Sioux City Journal* 1950-1961.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 20 Bridge

FHWA: 52860

LOCATION

WB US 20 over Little Whiskey Creek

S: 33 T: 89N R: 46W

Woodbury County, Iowa

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 46

total length:122

roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Continuous Concrete Slab

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete rail

This three-span 122' by 28' bridge features a continuous concrete slab superstructure and cast-in-place decking. Carrying Westbound US 20 over Little Whiskey Creek between Sioux City and Lawton, this bridge was designed in November 1952 by ISHC and built in 1953. The bridge has a 46' center span and 37' end spans. Both the piers and abutments are supported with wood piling. The bridge is set at a 30 degree skew.

In July 1950, the ISHC were completing plans to relocate a 14-mile long stretch of Highway 20 to eliminate "sharp and treacherous curves" (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects in the ISHC five-year construction program (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c).

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 20. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The highway relocation does not appear to have been the direct cause of significant development or major changes in land use in Lawton, the only town located along the new route. Aerial photographs from the 1950s and 1990s indicate that the town saw limited residential growth on all sides and some commercial development on the north side of the highway. A small residential development was constructed south of the bypass in the 1970s through the 1980s. Given these facts, LBG concludes that the WB US 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Lawton. The bridge does not meet any of the other registration requirements for Type 201 bridges. The bridge does not meet any of the other registration requirements for Type 201 bridges.

NAME(S) OF STRUCTURE

WB US 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52860; Design for Continuous Concrete Slab Bridge, November 1952, ISHC; *Sioux City Journal* 1950-1961.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 20 Bridge

FHWA: 52870

LOCATION

EB US 20 over Big Whiskey Creek

Woodbury County, Iowa

S: 35 T: 89N R: 46W

DATE(S) OF CONSTRUCTION

1959

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 73

total length: 184

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Continuous concrete T-beam

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features: Continuous concrete T-beam superstructure

This three-span 184' by 28' double bridge carries Eastbound US 20 over Big Whiskey Creek between Sioux City and Lawton. The bridge was designed by ISHC in November 1958 and built in 1959. The structure features a continuous concrete T-beam superstructure, reinforced concrete piers, and cast-in-place decking. The center span is 73' while the end spans are 53'. Both the piers and abutments are supported with wood pilings.

In July 1950, the ISHC were completing plans to relocate a 14-mile long stretch of Highway 20 to eliminate "sharp and treacherous curves" (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects in the ISHC five-year construction program (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c).

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 20. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The highway relocation does not appear to have been the direct cause of significant development or major changes in land use in Lawton, the only town located along the new route. Aerial photographs from the 1950s and 1990s indicate that the town saw limited residential growth on all sides and some commercial development on the north side of the highway. A small residential development was constructed south of the bypass in the 1970s through the 1980s. Given these facts, LBG concludes that the EB US 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Lawton. The bridge does not meet any of the other registration requirements for Type 204 bridges. The bridge does not meet any of the other registration requirements for Type 204 bridges.

NAME(S) OF STRUCTURE

EB US 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52870; Design for Continuous Concrete Girder Bridge, November 1958, ISHC; *Sioux City Journal* 1950-1961.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 20 Bridge

FHWA: 52880

LOCATION

WB US 20 over Big Whiskey Creek

S: 35 T: 89N R: 46W

Woodbury County, Iowa

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 73

total length: 184

roadway wdt: 28

OWNER:

Iowa Department of Transportation

superstructure: Continuous concrete T-beam

substructure: Reinforced concrete piers

floor/decking: Concrete Cast-in-place

other features:

This three-span 184' by 28' double bridge carries Westbound US 20 over Big Whiskey Creek between Sioux City and Lawton. The bridge was designed by ISHC in November 1952 and built in 1953, replacing an existing 96'x20' I-beam bridge. The structure features a continuous concrete T-beam superstructure, reinforced concrete piers, and cast-in-place decking. The center span is 73' while the end spans are 53'. Both the piers and abutments are supported with untreated and creosoted wood pilings, respectively.

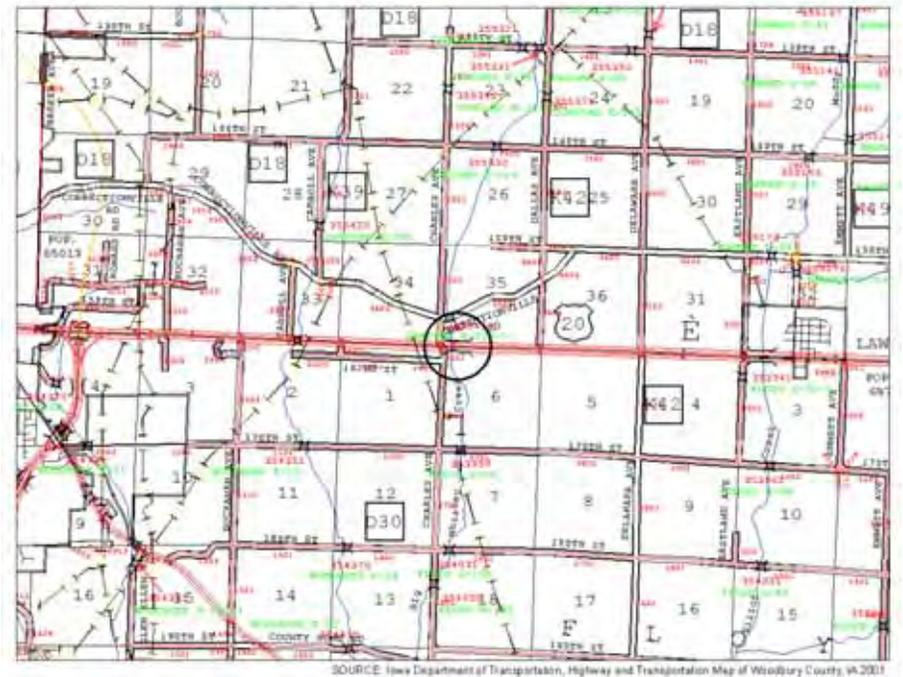
In July 1950, the ISHC were completing plans to relocate a 14-mile long stretch of Highway 20 to eliminate "sharp and treacherous curves" (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects in the ISHC five-year construction program (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c).

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 20. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The highway relocation does not appear to have been the direct cause of significant development or major changes in land use in Lawton, the only town located along the new route. Aerial photographs from the 1950s and 1990s indicate that the town saw limited residential growth on all sides and some commercial development on the north side of the highway. A small residential development was constructed south of the bypass in the 1970s through the 1980s. Given these facts, LBG concludes that the WB US 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Lawton. The bridge does not meet any of the other registration requirements for Type 204 bridges. The bridge does not meet any of the other registration requirements for Type 204 bridges.

NAME(S) OF STRUCTURE

WB US 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52880; Design for Continuous Concrete Girder Bridge, November 1952, ISHC; *Sioux City Journal* 1950-1961.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 20 Bridge

FHWA: 52890

LOCATION

EB US 20 over Elliot Creek

Woodbury County, Iowa

S: 32 T: 89N R: 45W

DATE(S) OF CONSTRUCTION

1960

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 61

total length:152

roadway wdt: 28.2

OWNER:

Iowa Department of Transportation

superstructure: Continuous concrete T-beam

substructure: Reinforced concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Continuous concrete T-beam superstructure

This three-span 152' by 28' bridge carries Eastbound US 20 over Elliot Creek east of Eastland Avenue in Lawton. The bridge was built in 1960 to replace an existing 60'x16' pony truss with I-beam approach spans. The new bridge features a continuous concrete T-beam superstructure, reinforced concrete piers, and cast-in-place decking. The center span is 61' while the end spans are 44'. The abutments have untreated wood pilings and the piers have creosoted wood pilings. The bridge was designed by the ISHC in November 1958.

In July 1950, the ISHC were completing plans to relocate a 14-mile long stretch of Highway 20 to eliminate "sharp and treacherous curves" (*Cedar Rapids Gazette*, July 16, 1950:4). On May 21, 1952, Christenson Brothers of Cherokee received the bids for bridge and culvert work (*Sioux City Journal*, May 22, 1952:1). Within six years, the new segment of highway was slated to become a four-lane highway. On December 17, 1958, Christenson Brothers of Cherokee, Iowa was awarded the \$185,396 contract for construction of three bridges along the new four-lane route (*Sioux City Journal*, December 18, 1958:1). By May 1961, the bridges and grading were complete; however, because of cuts in spending, federal matching funds for the remainder of the project were diverted to other projects in the ISHC five-year construction program (*Sioux City Journal*, May 6, 1961:1). All that remained was paving the additional two lanes of highway. The additional lanes were finally paved by January 1964 (*Cedar Rapids Gazette*, January 13, 1964:2c).

The bridge was included for Phase II evaluation under Criterion A as it was a new bridge built for a relocation of US Highway 20. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The highway relocation does not appear to have been the direct cause of significant development or major changes in land use in Lawton, the only town located along the new route. Aerial photographs from the 1950s and 1990s indicate that the town saw limited residential growth on all sides and some commercial development on the north side of the highway. A small residential development was constructed south of the bypass in the 1970s through the 1980s. Given these facts, LBG concludes that the EB US 20 Bridge does not meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in Lawton. The bridge does not meet any of the other registration requirements for Type 204 bridges. The bridge does not meet any of the other registration requirements for Type 204 bridges.

NAME(S) OF STRUCTURE

EB US 20 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 52890; Design For 150'x28' Continuous Concrete Girder Bridge, ISHC, November 1952; *Sioux City Journal* 1950-1961

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

NB IA 376

FHWA: 53070

LOCATION

NB IA 376 over Taft Street

Woodbury County, Iowa

S: 12 T: 89N R: 47W

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 7

span length: 68

total length: 514

roadway wdt: 28.0

OWNER:

Iowa Department of Transportation

superstructure: Steel Stringer/Beam/Girder

substructure: Reinforced concrete

floor/decking: Concrete Cast-in-place

other features: Simple steel span

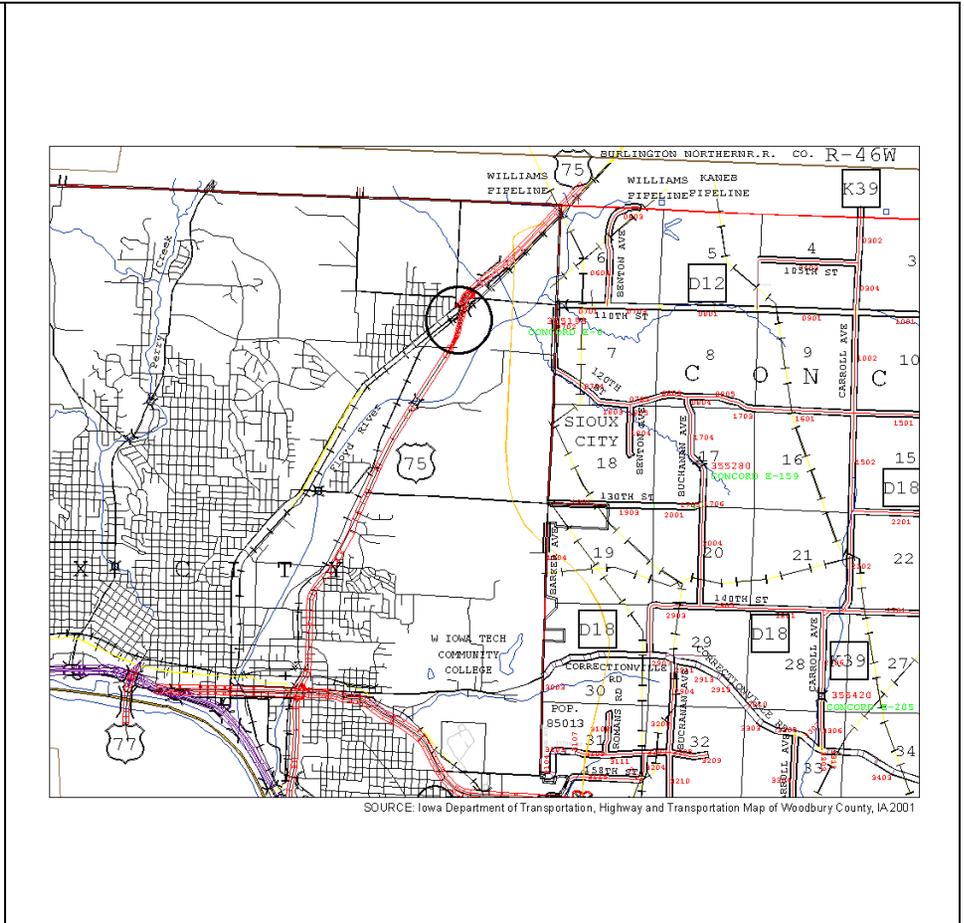
This seven-span 514' by 28' bridge carries Northbound Iowa 376 over the Chicago Central and Pacific (CC) Railroad and Taft Street in Sioux City. The bridge is comprised of a center 61' simple steel span flanked by 222' three-span continuous I-beam structures. The three span continuous sections consist of 67' 6" end spans and an 87' center span. The bridge replaced an existing 546'x24' steel I-beam bridge located just east of the present structure. The bridge was designed by the ISHC in August 1955 and constructed in 1956. Engineer Consultant, Herbert A. Arthur is also noted on the blueprints for the bridge. Repairs were made to the bridge floor, piers, and expansion joints in 1984. In 1991, strengthening angles were added to the exterior beams and the existing aluminum rail was replaced with concrete. Very little information could be found on the construction of the bridge in local newspapers. Herbert A. Arthur was an architect/engineer with a practice in Ames, Iowa. An American Architects Directory from 1956 lists numerous buildings completed by him including ISHC Laboratory Buildings in Ames, 1954; and ISHC District Office Building in Mason City, Iowa, 1955 (Bowker 1956:15).

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970 as a steel stringer, multi-beam or girder bridge (Type 302) with an overall length of over 400'. As the overall length of the bridge (514') meets the aforementioned registration requirement, the bridge is eligible for inclusion in the NRHP under Criterion C. The bridge does not meet any of the other registration requirements for a Type 302 bridge.

NAME(S) OF STRUCTURE

NB IA 376

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 53070; Design for 507'x28' Overhead Crossing, August 1955, ISHC; Bridge Repair, U.S. 75 over IGC RR Near NCL of Sioux City, January 1984, ISHC; Design for Repairs to a 507'x28' Continuous I-Beam Bridge, January 1991, ISHC; American Architects Directory, R.R. Bowker, LLC, 1956.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

U.S. Highway 63 Bridge

FHWA: 80020

LOCATION

US Hwy 63, 2.5 mi. N of Denver

Bremer County, Iowa

S: 1 T: 91N R: 13W

DATE(S) OF CONSTRUCTION

1963

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (<50 yrs. old)

CONDITION

Good

span number: 5

span length: 120

total length:555

roadway wdt: 27.9

OWNER:

Bremer County

superstructure: Steel Welded I-Girder w/Diaphragm (2 Girders)

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

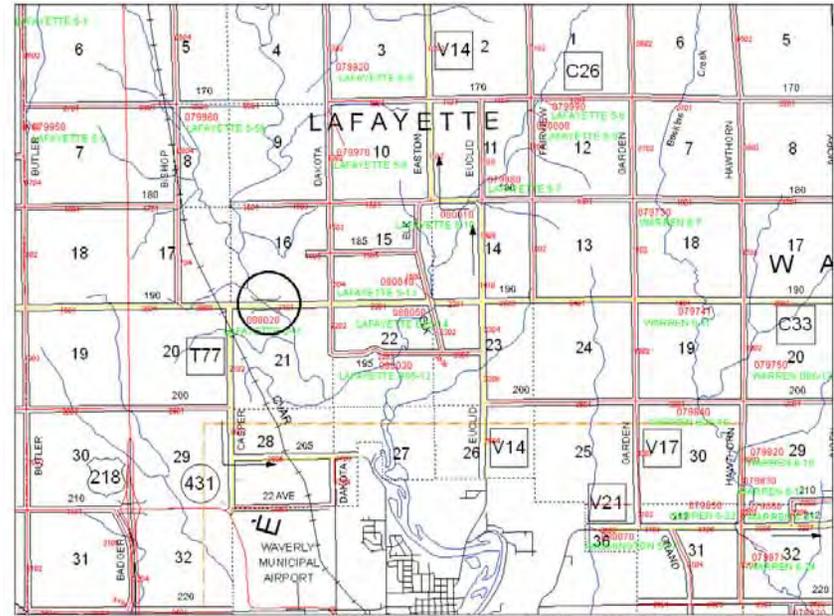
Spanning the Cedar River NW of Waverly, this 550' by 28' five-span continuous welded two-girder bridge was constructed in 1963 by the Kehe Construction Co. at a cost of \$189,700. The bridge contains two 95' spans and three 120' spans and features a concrete slab and Type 10BP42 piers and abutments. Repair work based on drawings dated May 1988 involved the retrofit of 16 floor beam connection stiffeners to fatigue cracks in the girder webs and stiffeners.

This bridge was chosen for Phase II architectural survey as it met the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970 as a simple span bridge with an overall length of over 400'. This bridge was also included in the Phase II survey as it was the only bridge of its type in the state. As the overall length of the bridge meets the aforementioned registration requirement, it is the only welded I-girder bridge in the state, and the bridge has a high degree of integrity, the bridge will be eligible for inclusion in the NRHP under Criterion C when it reaches 50 years of age in 2013. The bridge does not meet Criteria Consideration G as it is not of exceptional importance.

The Steel Welded I-Girder w/Diaphragms bridge is a modern variation of the simple span plate girder bridge without a floorbeam system (refer to Type 302 above). The deck system is carried directly on the top flange of the girders. Depending on the width of the bridge and the deck system used, the type may be constructed with 2 Girders [Type 324] an example of which is found in Iowa (1942-1970) or with more than two girders, [Type 323]. A diaphragm is a secondary member, usually a rolled beam of wide-flange or channel cross section, which runs transversely to join the primary I-girders together. The diaphragm acts to stiffen the primary girders and distribute loads.

NAME(S) OF STRUCTURE
U.S. Highway 63 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 080020; Iowa Department of Transportation Design for Bridge Repair, May 1988 (Project SN-1695 (8)--51-09, located at the Bremer County Engineer's Office

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Leroy 3-1 Bridge

FHWA: 80270

LOCATION

310th Avenue over E. Fork Wapsipinicon

S: 3 T: 93N R: 12W

Bremer County, Iowa

DATE(S) OF CONSTRUCTION

1955

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 5

span length: 55

total length:233

roadway wdt: 20.3

OWNER:

Bremer County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Timber piers and abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

Spanning the Wapsipinicon River along the Bremer and Chickasaw county line northeast of Frederika, this five-span prestressed concrete bridge was constructed in 1955, replacing an existing bridge of unknown type. The bridge was built by Carpenter & Kvast at a cost of \$24,915 as a three-span bridge with five girders. The longest span was 43' 6". Two additional eight-girder spans, designed by the IHC, were added to the eastern end in 1963, constructed by C.B. Taylor at a cost of \$21,532. The longest span of this section is 55'. The pier and abutment types are H11-4 timber.

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The original bridge, as constructed in 1955, does not meet this requirement. One of the spans of the 1963 extension is over 50' in length; however, the registration requirements were written for bridges as a whole, not additions or extensions to bridges. Given these facts, the bridge is not eligible for inclusion in the NRHP as it does not meet the registration requirements outlined in the MPDF, Highway Bridges in Iowa: 1942-1970. The bridge has diminished integrity of design, workmanship, and materials due to the 1963 extension.

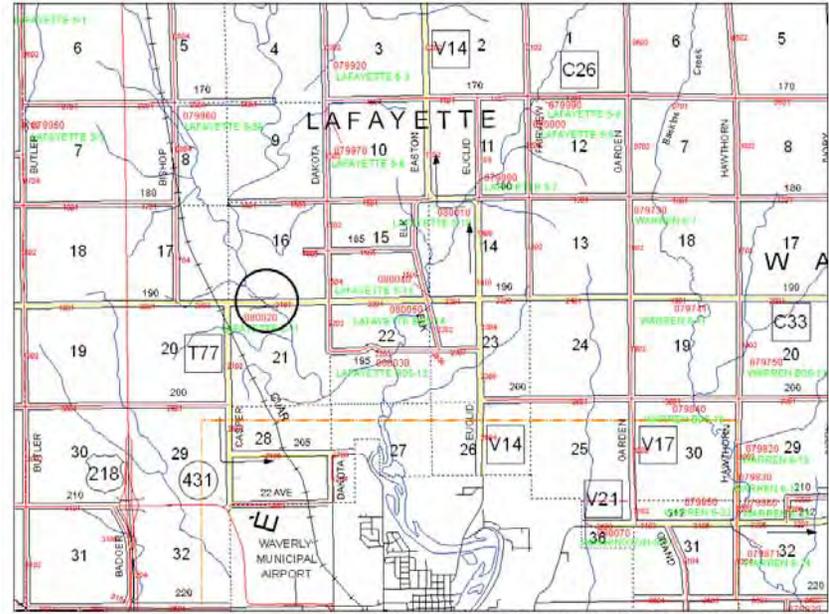
The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

Reinforced Concrete Stringer/beam/girder bridge (beam bridges) designs immediately followed the introduction of slab bridges in the early 1900s and provided the necessary design improvements for longer concrete spans to be economical in comparison to structural steel bridges. In Iowa, both concrete beam bridges and T-beam bridges reach a maximum span of 99 feet. The technology of standard reinforced cast-in-place beam and T-beam bridges did not advanced appreciably during the study period except in the areas of precasting. Precasting of conventionally reinforced concrete bridge elements was utilized primarily for viaducts, causeways and long approaches that required a large number of identical structural components such as pier shafts, bent caps, and deck slabs and beams between 1920 and 1950.

NAME(S) OF STRUCTURE

Leroy 3-1 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Bremer County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 080270; Iowa State Highway Commission Design for Modified H 11-1 55'-0" & 42'-6" (2 span) extension of present 129'-6" x 20' 3 Span Prestressed Conc. Br.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Franklin Avenue Bridge

FHWA: 88910

LOCATION

Franklin Avenue near 180th Street

Butler County, Iowa

S: 7 T: 92N R: 18W

DATE(S) OF CONSTRUCTION

1952

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 10

span length: 25

total length:251

roadway wdt: 18

OWNER:

Butler County

superstructure: Timber Stringer/Beam/Girder

substructure: Timber piers and abutments

floor/decking: Timber

other features: Wood guardrails

Located northwest of Dumont on the Butler and Franklin county line, this 251' x 18' ten-span timber bridge has a posted weight limit of 6 tons. Piers, abutments, stringers, beams, girders, decking and guardrails are all timber. In October 1951, the Butler County Board of Supervisors let contracts for four timber pile bridges in the county, including the Franklin Avenue bridge. Contracts for construction for all four bridges went to W.A. Burton and Son from Waterloo. According to the Clarksville Star article, the county provided the creosoted piling, lumber and hardware for construction of the bridges (*Clarksville Star* 1951:1).

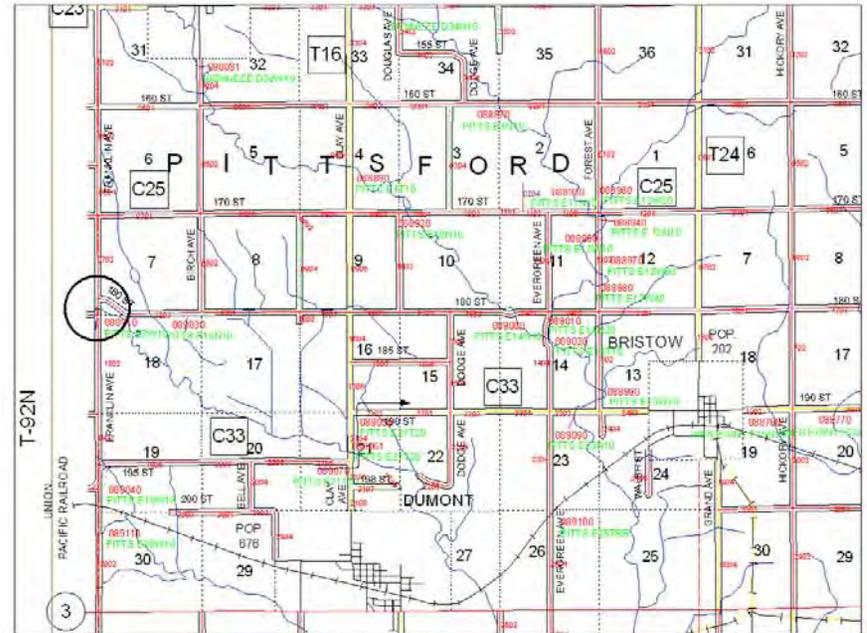
This bridge was chosen for Phase II architectural survey as it was a bridge "with ten or more spans with the longest span at least 25' in length that may represent a significant overall length or cost and should therefore be individually evaluated" as stated in the registration requirements under Criteria C outlined in the MPDF, Highway Bridges in Iowa: 1942-1970. The Franklin Avenue Timber Stringer Bridge is not eligible for inclusion in the National Register of Historic Places as it does not represent a significant overall length or cost. The timber stringer bridge was an economical solution in a period where traditional bridge building materials were scarce. The bridge was not a significant cost as the County provided most of the materials for construction. The bridge is not an early, exceptional, or innovative example of its type as it displays typical substructure and superstructure for its type. While it is one of the longest multi-span timber stringer bridges in the state, each span is only 25 feet, which is no longer than standard type bridges of its type.

The timber beam bridge consists of sawn timbers, generally deeper than they are wide, longitudinally spanning the opening, but spaced some distance apart, stringers being the smallest and girders the largest. Transverse timbers rest on the beams and either form the road surface or act as floor beam for longitudinal decking. Timber beam bridges may also be constructed using manufactured girders of glue-laminated construction. Laminated timber girders are made of many smaller boards or timbers glued together to form a girder much bigger than the largest sawn timbers, and thereby allow for much greater spans.

The timber beam bridge is the second most numerous bridge type in Iowa after bridges of the same type of steel, comprising 16 percent of the total number of bridges built between 1942 and 1970. They have been built in Iowa in every year between 1942 and 1970. The peak period of use of the type was between 1948 (94 bridges) and 1955 (82 bridges), when a total of 812 bridges were built, representing 53% of the overall total. The biggest year was 1950 when 146 Timber SBG bridges were built. This may be directly related to the shortage of steel and concrete materials during the Korean War. Articles in the Clarksville Star from 1951 reported the difficulties in conducting improvements to local and farm-to-market roads with shortages of these essential materials. During other years an average of 35 bridges per year were built.

NAME(S) OF STRUCTURE
Franklin Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 088910; *Clarksville Star* 1951; *Highway Bridges in Iowa: 1942-1970*, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Cass County Bridge #90; Pleasant #90 (County ID)

FHWA: 97550

LOCATION

N. of Upland and 570th junction

S: 9 T: 74N R: 37W

Cass County, Iowa

DATE(S) OF CONSTRUCTION

1955

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Fair

span number: 1

span length: 51

total length:53

roadway wdt: 20

OWNER:

Cass County

superstructure: Conc Channel beam

substructure: Timber pile and backing plank w/ concrete caps

floor/decking: Concrete Precast panels

other features: Concrete decking; metal guardrails

This single-span 53' by 20' bridge carries gravel-surfaced 570th Street over a waterway just north of its intersection with Upland Road southeast of Griswold. Abutments of treated timber pile and backing plank with concrete caps supports a precast concrete channel beam superstructure. The design was based on the Iowa State Highway Commission's standard design (1954) for precast concrete bridges with H-15 loading and 18', 24' and 30' spans and 24' and 20'-9" roadways.

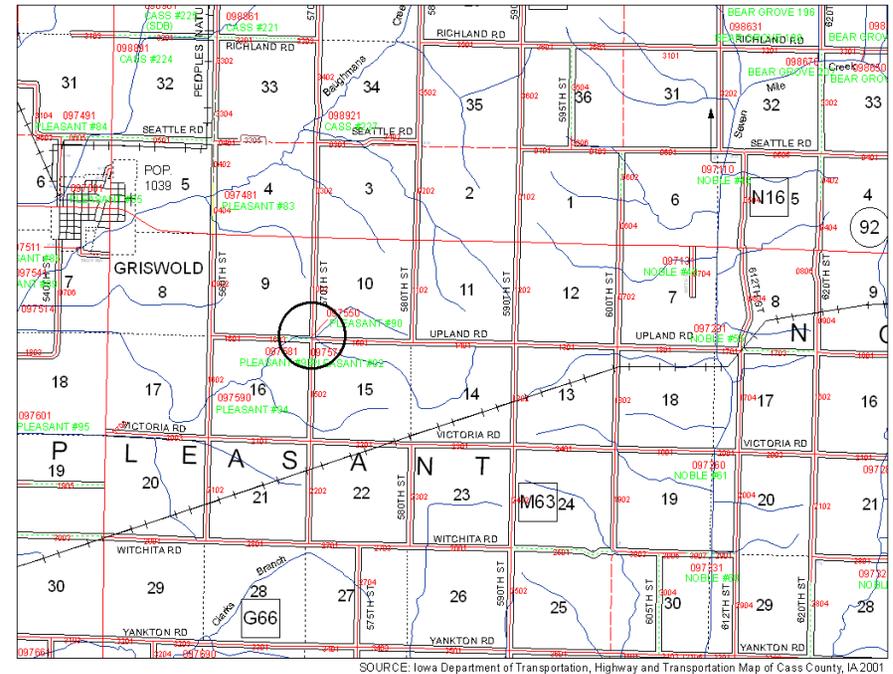
In the SI&A database, this bridge was listed as a Type 102 bridge (concrete stringer, multi-beam or girder). However, research at the county engineer's office indicates that the bridge is actually a Type 122, concrete channel beam bridge. As a Type 102 bridge, the structure met registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970. However, registration requirements for a Type 122 (channel beam) bridge are spans in excess of 70' in length. As such, this bridge with a main span of 51' does not meet those requirements and is thus not eligible for listing in the National Register of Historic Places.

The concrete Channel Beam bridge [Type 122], can be thought of as a box girder without a bottom flange. Conventionally reinforced concrete channel beams are pre-cast units in standard lengths commonly between 20' and 70' although the longest span in Iowa is 48'. Like the box beam, the units are placed side-by-side with the top flanges abutting to form the roadway slab. Concrete channel beam bridges in Iowa were more widely used than concrete box beams. With an open bottom, the channel form was especially adaptable to precasting for short spans with greater ease than the box-section girder.

NAME(S) OF STRUCTURE

Cass County Bridge #90; Pleasant #90 (County ID)

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

IA DOT, Structure Inventory and Appraisal: Structure No. 97550; Bridge Scour Review Worksheet, Calhoun-Burns and Assoc. (Nov. 1995); Bridge No. 90 Inspection Report (1973); "Standard Design: Precast Concrete Bridge Superstructure Details" (Oct. 1954)

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

80th Street Bridge

FHWA: 150370

LOCATION

80th Street over Volga River

Fayette County, Iowa

S: 30 T: 92N R: 8W

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 55

total length: 57

roadway wdt: 20

OWNER:

Fayette County

superstructure: Conc Girder & Floorbeam

substructure: Treated timber & piling abutments

floor/decking: Concrete Cast-in-place

other features: Concrete deck girder; metal guardrail

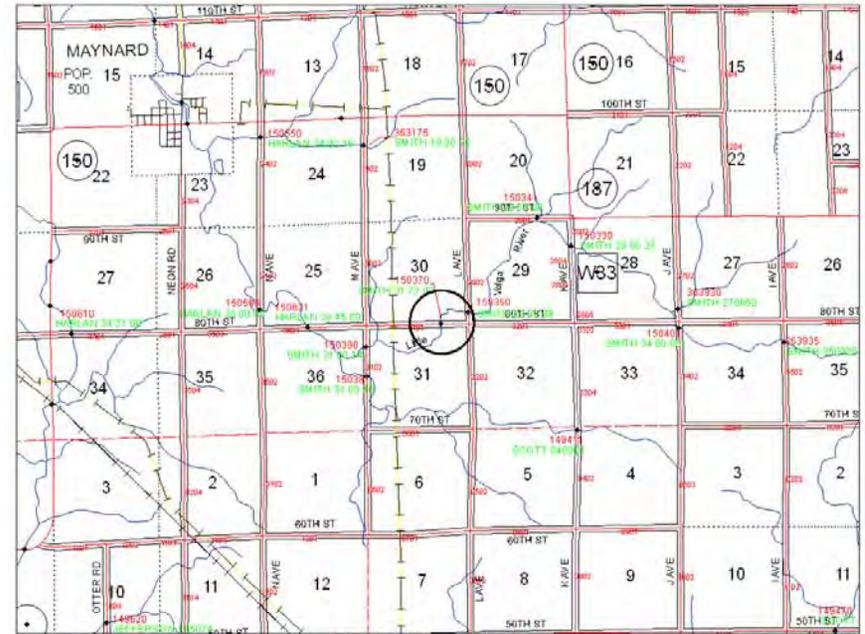
This single-span 57' by 20' concrete bridge carries 80th Street across the Little Volga River southeast of Maynard. It was constructed in 1953 by C.B. and M.R. Taylor Construction Company of Decorah, IA at a cost of \$13,266 and features concrete deck girders and cast-in-place concrete decking.

The 80th Street Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 as it is a large girder and floorbeam bridge of an exceptional span length. The registration requirements include girder spans of over 50' in length as exceptional. With a main span of 55', this bridge does meet that requirement. The 80th Street Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

The Concrete Girder & Floorbeam bridge [Type 103] commonly consists of two parallel rectangular girders spanning between supports (abutments and piers), spaced apart a distance approximately equal to the width of the roadway. Sidewalk slabs are usually cantilevered beyond the girders. More than two girders are used in some cases. The girders support transverse cross beams (floorbeams) which are spaced to properly support the deck slab. The formwork and steel reinforcing for the girders, floorbeams and slab is commonly built all together so that the concrete can be continuously poured making all three structural members integral.

NAME(S) OF STRUCTURE
80th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Fayette County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 150370; Fayette County Highway Department Bridge Record: Bridge No. 04900-20

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Great River Road Bridge

FHWA: 152830

LOCATION

Great River Road over Turkey River

S: 29 T: 95N R: 7W

Fayette County, Iowa

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 4

span length: 99

total length:340

roadway wdt: 20

OWNER:

Fayette County

superstructure: Conc Continuous T-Beam

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete T-beams; concrete guardrails

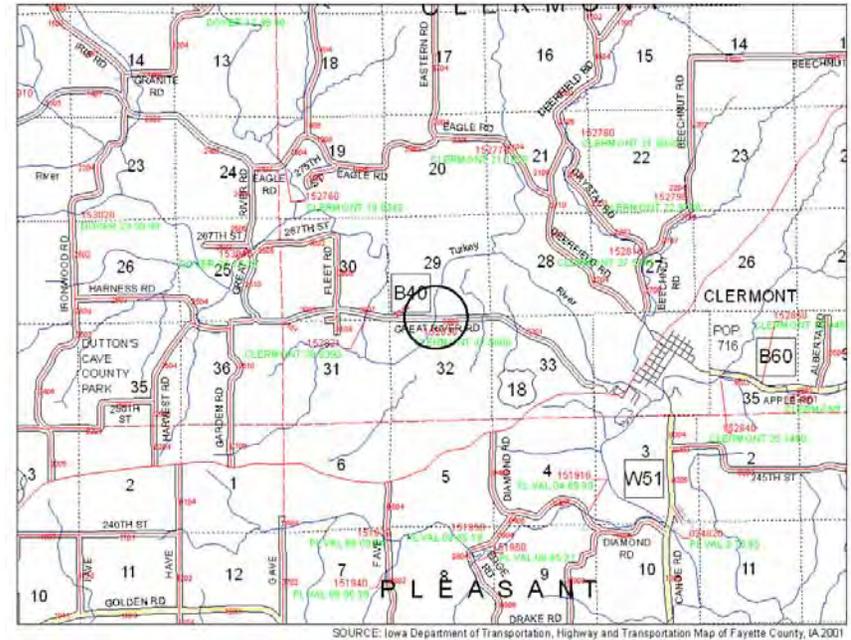
This four-span 340' by 20' integral slab and beam concrete bridge carries B40 (Great River Road) over the Turkey River west of Clermont. It was constructed in 1952-53 by the Calback Construction Co. at a cost of \$98,745.

The Great River Road Bridge is not eligible for inclusion in the NRHP as it does not meet any registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970. The bridge was initially listed as a Type 104 bridge; a simple span, concrete T-beam bridge. As such its two center spans of 99' met the registration requirements for that bridge type. However, examination of blueprints revealed that the bridge was actually a Type 204, continuous concrete T-beam bridge. The registration requirement for this bridge type requires a long span of over 100', which the Great River Road Bridge does not meet. The Great River Road Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

Concrete Continuous T-beam bridges [Type 204] are in most ways identical to their simple span versions, with the primary difference being the continuation of the structural member over one or more intermediate piers. This difference between simple and continuous spans is visually apparent because only a single bearing is required to support a continuous girder at an intermediate pier rather than two separate bearings at each pier to support each end of the girders of a simple span bridge. Another visual cue which is apparent in some cases, is the joint where the ends of continuous beams meet, which is not located over the piers, but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

NAME(S) OF STRUCTURE
Great River Road Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 152830; Fayette County Highway Department Bridge Record

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

CR P14 Bridge

FHWA: 162200

LOCATION

CR P14 over N. Raccoon River

Greene County, Iowa

S: 3 T: 83N R: 31W

DATE(S) OF CONSTRUCTION

1952

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 4

span length: 99

total length: 343

roadway wdt: 20.3

OWNER:

Greene County

superstructure: Conc Continuous T-Beam

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete girder & floorbeam

Carrying P14 (J Avenue) over the North Raccoon River west of Jefferson, this 343' by 20' concrete girder bridge was constructed in 1952. The four span bridge has three girders, the exterior of which are arched. The two center spans are 99' long while the two end spans are 71' long. The bridge was designed by Lechner Engineering Company of Ames, Iowa. Its construction was in conjunction with the relocation of US Highway 30 between Jefferson and Scranton. A road that meandered north to south was replaced by a straight road that followed the section line and connected to the newly relocated Highway 30.

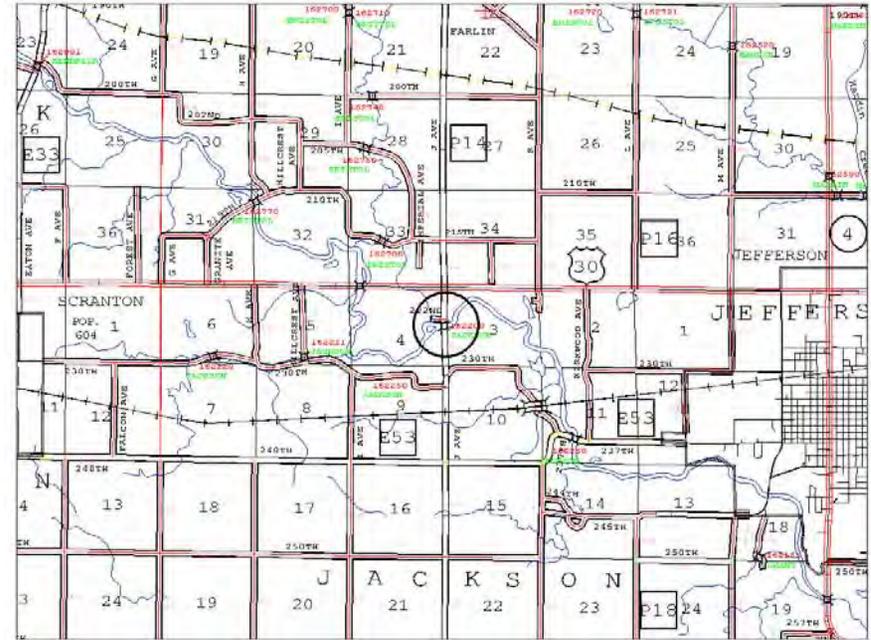
The P14 Bridge is not eligible for inclusion in the NRHP as it does not meet any registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970. The bridge was initially listed as a Type 104 bridge; a simple span, concrete T-beam bridge. As such its two center spans of 99' met the registration requirements for that bridge type. However, examination of blueprints revealed that the bridge was actually a Type 204, continuous concrete T-beam bridge. The registration requirement for this type bridge requires a long span of over 100', which the P14 Bridge does not meet. The P14 Bridge does not meet any other registration requirements and is therefore not eligible under any criteria.

Concrete Continuous T-beam bridges [Type 204] are in most ways identical to their simple span versions, with the primary difference being the continuation of the structural member over one or more intermediate piers. This difference between simple and continuous spans is visually apparent because only a single bearing is required to support a continuous girder at an intermediate pier rather than two separate bearings at each pier to support each end of the girders of a simple span bridge. Another visual cue which is apparent in some cases, is the joint where the ends of continuous beams meet, which is not located over the piers, but roughly at the third-points of the span where the positive and negative bending moments cancel each other.

NAME(S) OF STRUCTURE

CR P14 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Greene County, IA, 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 162200; Greene County Secondary Road Department, Blueprints for FHWA #162200/Design # 251 Bridge, 1951.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

I-4 Blackhawk Bridge

FHWA: 163930

LOCATION

230th Street over Black Hawk Creek

Grundy County, Iowa

S: 12 T: 87N R: 15W

DATE(S) OF CONSTRUCTION

1949

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Fair

span number: 11

span length: 25

total length:277

roadway wdt: 20

OWNER:

Grundy County

superstructure: Timber Stringer/Beam/Girder

substructure: Treated timber pilings and abutments

floor/decking: Timber

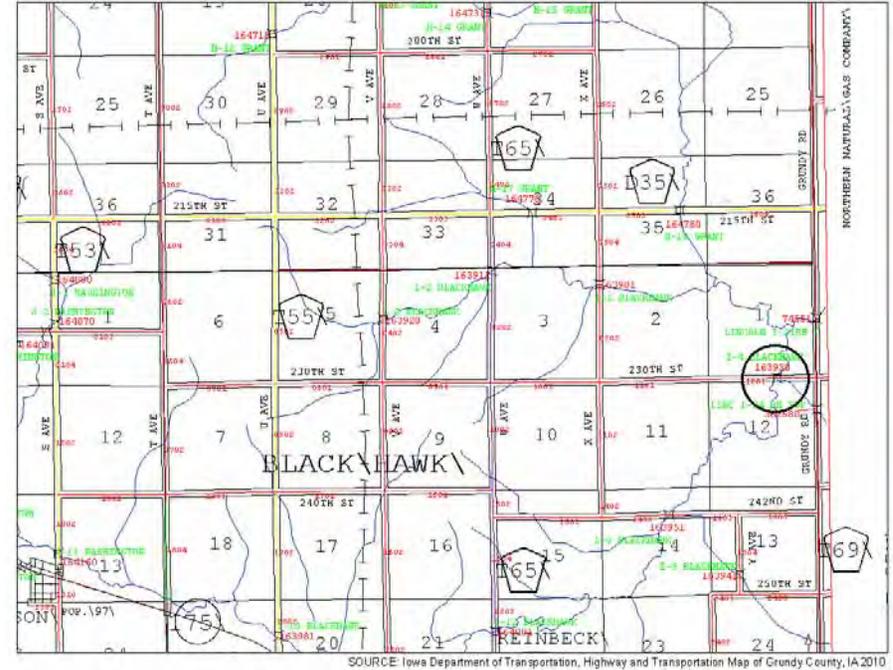
other features: Laminated decking; wood guardrails

This 11-span 277' by 20' timber bridge carries 230th Street over Black Hawk Creek southwest of Hudson. It was constructed during the winter of 1948-49 by Lechner Engineering Co. of Ames, Iowa. Based on the Iowa State Highway Commission's 1937 series Standard Specifications, the treated timber bridge features a wood substructure, eleven 25' x 20' creosoted wood spans, laminated decking and wood guardrails. It replaced an earlier 201' by 15' wood trestle bridge.

This bridge was chosen for Phase II architectural survey as it was a timber bridge with more than 10 spans of 25' each, which " may represent a significant overall length or cost and should therefore be individually evaluated." as stated in the registration requirements under Criteria C outlined in the MPDF, Highway Bridges in Iowa: 1942-1970. The I-4 Blackhawk Timber Stringer Bridge displays typical substructure and superstructure for its type. While it is one of the longest multi-span timber stringer bridges in the state, the bridge does not represent a significant overall cost or length. The bridge replaced an existing trestle bridge, so it was not part of a new river crossing or major transportation corridor. The bridge is not an early, exceptional, or innovative example of its type that was built according to standard ISHC specifications. The bridge was designed by a private company, Lechner Engineering, and as such is not a significant example of an Iowa Highway Commission standard plan. The bridge is not eligible for inclusion in the National Register of Historic Places under any Criteria.

NAME(S) OF STRUCTURE
I-4 Blackhawk Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 163930; Bridge Inspection Report, Bridge No. I-04 (Calhoun Burns and Associates, Inc.: 7 June 2006); A Context for Common Bridge Types (Parsons Engineering, October 2005).

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Jade Avenue Bridge

FHWA: 182470

LOCATION

Jade Avenue over Crane Creek

Howard County, Iowa

S: 21 T: 98N R: 13W

DATE(S) OF CONSTRUCTION

1950

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 54

total length: 57

roadway wdt: 20

OWNER:

Howard County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Concrete abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

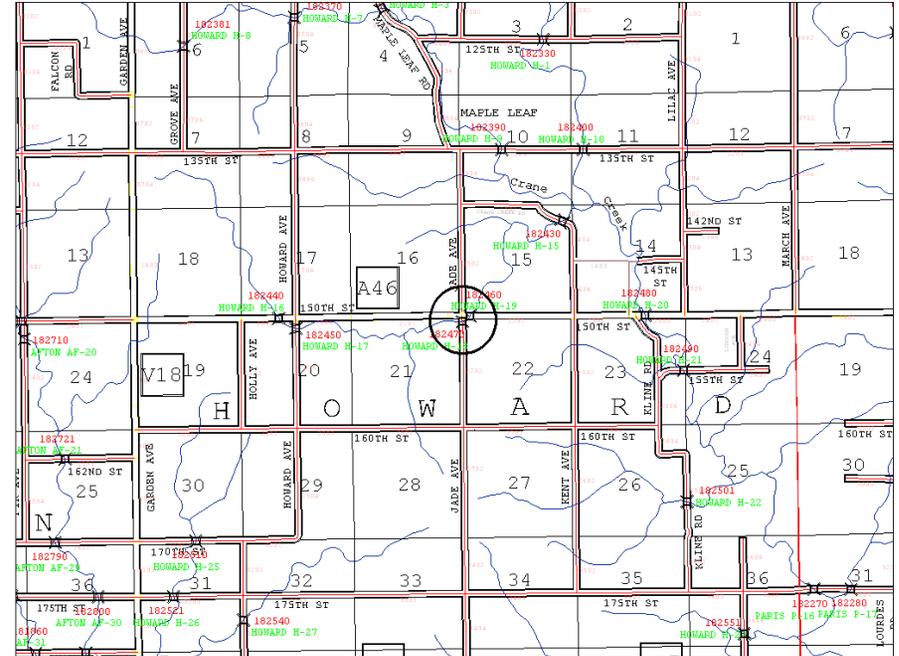
This single-span 57' by 20' bridge carries Jade Avenue over Crane Creek northeast of Elma. Concrete abutments support concrete girders and cast-in-place decking. The files for this bridge at the Howard County Engineer's Office contain Iowa State Highway Commission plans dating to 1952 and titled "Standard Design: Concrete Girder Bridge 20 Roadway, Steel Rail".

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The Jade Avenue Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined above. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE
Jade Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Howard County, IA, 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 182470; Plans, "Standard Design: Concrete Girder Bridge 20 Roadway, Steel Rail" (Feb. 1952: Iowa State Highway Commission)

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Robin Avenue Bridge

FHWA: 183090

LOCATION

Robin Avenue over W. Br. Turkey River

S: 26 T: 99N R: 12W

Howard County, Iowa

DATE(S) OF CONSTRUCTION

1966

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 1

span length: 62

total length:63

roadway wdt: 27.9

OWNER:

Howard County

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

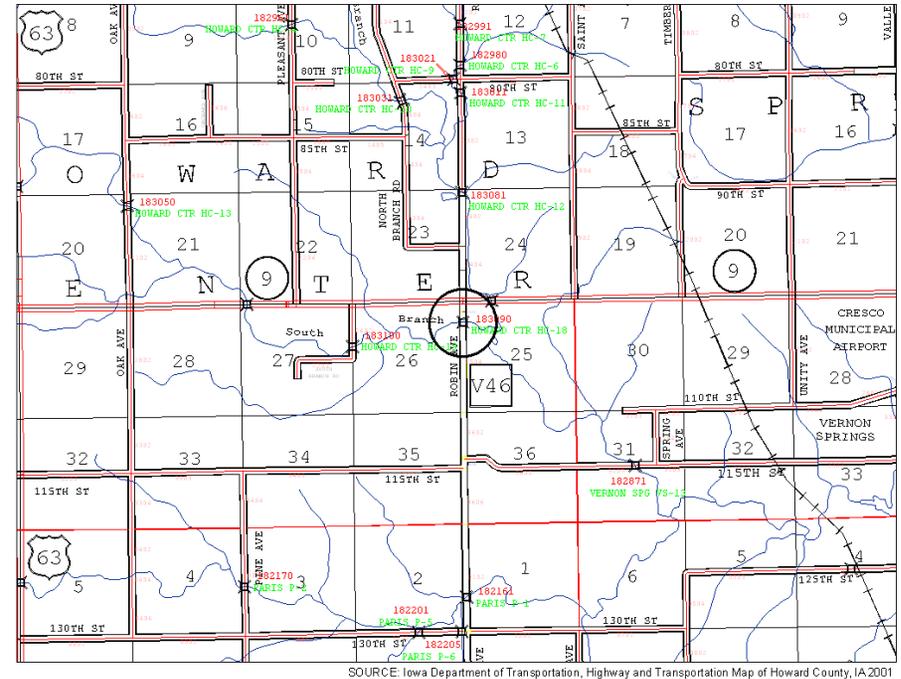
This single-span 63' by 27.9' bridge carries Robin Avenue over the west branch of the Turkey River west of Cresco. Concrete abutments support concrete girders and cast-in-place decking. Photographs of the bridge at the Howard County Engineer's Office identify it as PWA # 75.

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. However, upon completion of the intensive survey it was discovered that the bridge was a Type 502, prestressed concrete stringer bridge. The registration requirements for this type are spans in excess of 100'. As the Robin Avenue Bridge has a span of 62', the bridge is not eligible under the above-mentioned registration requirement or any other requirements from the MPDF.

The Prestressed Concrete Stringer, Multi-beam or Girder bridge [Type 502] also occurs in the continuous form [Type 602]. Prestressed beam bridges that are cast-in-place or precast onsite are usually rectangular in cross section and post-tensioned. More common are factory precast beams, pretensioned and posttensioned, that have evolved into several standardized designs in the form of modified I-sections, with various flange shapes depending on the application.

NAME(S) OF STRUCTURE
Robin Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 183090; Photographs, PWA # 75, Howard County Engineer's Office

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

94th Place Bridge

FHWA: 240110

LOCATION

94th Place over Tracey Creek

Marion County, Iowa

S: 28 T: 75N R: 20W

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 55

total length:58

roadway wdt: 20

OWNER:

Marion County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Timber pile and plank abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

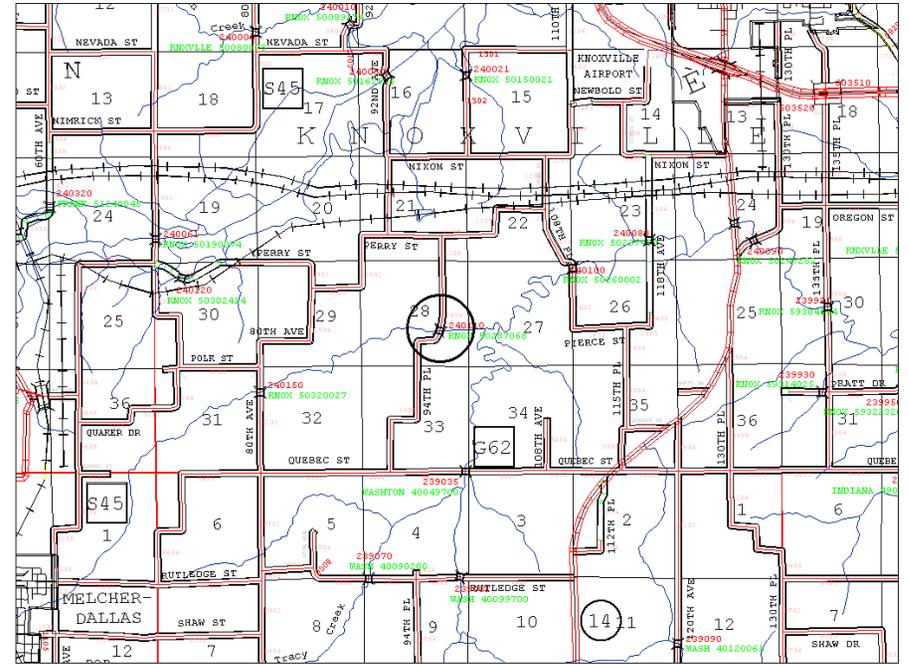
This single-span 58' by 20' bridge carries a local road, 94th Place, over Tracey Creek between Knoxville and Melcher-Dallas. Timber pile and plank abutments support concrete girders. The bridge is surfaced with dirt.

The 94th Place Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE
94th Place Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Marion County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 240110

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Red Rock Dam Bridge

FHWA: 240385

LOCATION

CR T15 over Red Rock Dam

Marion County, Iowa

S: 19 T: 76N R: 18W

DATE(S) OF CONSTRUCTION

1967

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criteria A and C, Crit. Cons. G)

CONDITION

Good

span number: 5

span length: 113

total length:563

roadway wdt: 28

OWNER:

Corps of Engineers

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

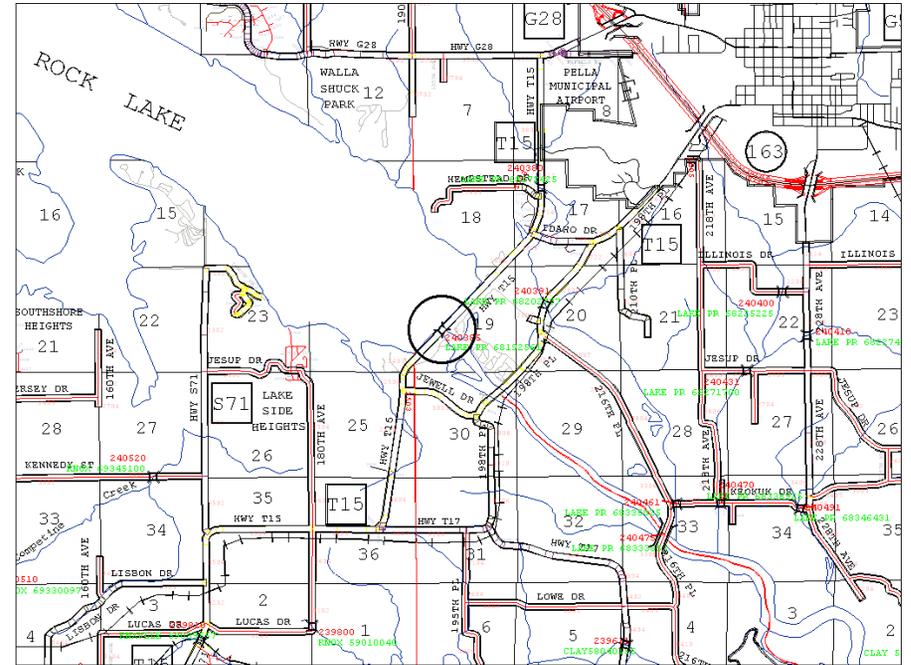
This five-span 563' by 28' bridge carries Hwy. T15 over the top of Red Rock Dam southwest of Pella. The bridge uses prestressed concrete girders and cast-in-place decking. Though seemingly a part of the dam structure, the concrete road over the spillway and dam was one of the last items constructed. In February 1966, the contract for the final earth embankment was let to William A. Smith Company of Kansas City, Kansas (*Pella Chronicle* February 1, 1966:1). By January 1968, work had begun on the roadway on top of the earth embankments; though the road over the spillway itself had already been completed (*Pella Chronicle-Advertiser* January 30, 1968:1).

The bridge was included in the Phase II survey as it is a large bridge of exceptional span or overall length, which according to the registration requirements in the MPD is a prestressed girder span (Type 502) with a span greater than 100' or multiple span bridges with an overall length in excess of 400 feet. The bridge is 563' long with a main span of 113', which meets both the aforementioned registration requirements for prestressed concrete bridges. The bridge is also associated with the construction of the Red Rock Dam and Reservoir as it was built to span the spillway of the dam itself. As such, the Red Rock Dam Bridge is eligible for inclusion in the NRHP under Criteria A and C as it does meet the registration requirements outlined in the MPD. Although, the bridge is less than 50 years of age, it does possess characteristics of exceptional importance and thus does meet Criteria Consideration G. The Red Rock dam and reservoir project was one of the largest undertakings of its kind in Iowa and the Red Rock Lake Bridge was the longest and tallest bridge in Iowa at the time of its construction.

The Red Rock Dam project was authorized in the Flood Control Acts of June 1938 and December 1944. In June 1944, the Senate Commerce Committee approved \$15 million of the \$1 billion national flood control program for a large dam to the southeast of Des Moines (*Council Bluffs Nonpareil* June 25, 1944:7). Floods in 1947 prompted a second dam on the Des Moines River at Saylorville (*Pella Chronicle* July 19, 1956:1). In 1956, planning for the project began. On June 4, 1960, the groundbreaking ceremony was held (*Pella Chronicle* June 9, 1960:1). Approximately 86 miles of railroad, 10 miles of state highway, 85 miles of county roads, and numerous bridges in the area would be impacted, either through submersion or relocation (*Pella Chronicle-Advertiser* September 3, 1969:9B). Thus, while the dam was being built, several new bridges and roads were constructed. The 5,653' Iowa 14 Bridge over the Des Moines River / Red Rock Lake (FHWA #35200) was designed by the Iowa Highway Commission and opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600. The concrete road over the spillway and dam (FHWA #240385) was one of the last items constructed in 1967 (*Pella Chronicle-Advertiser* January 30, 1968:1). The IA 316 Bridge (FHWA #280555) between Runnells and Swan was completed in 1968. New bridges also had to be built for relocated routes such as IA 5 southwest of Knoxville. On March 17, 1969, the dam went into operation and the permanent pool level of 725' was reached in three days due to the spring melt (*Pella Chronicle-Advertiser* September 3, 1969:Special Insert, p.7). The Red Rock Dam and Reservoir was dedicated on September 6, 1969. Four days of festivities accompanied the dedication of the dam. When completed, the 6,300-acre dam was the largest man-made lake in Iowa.

NAME(S) OF STRUCTURE
Red Rock Dam Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 240385; *Pella Chronicle* 1966-1968; *Council Bluffs Nonpareil* 1944.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Trolley Road Bridge

FHWA: 257450

LOCATION

Trolley Rd. near Fairport Station St. Park

S: 27 T: 77N R: 1W

Muscatine County, Iowa

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 68

total length: 68

roadway wdt: 20.3

OWNER:

Muscatine County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Conc. abutment / Timber pile wingwalls

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

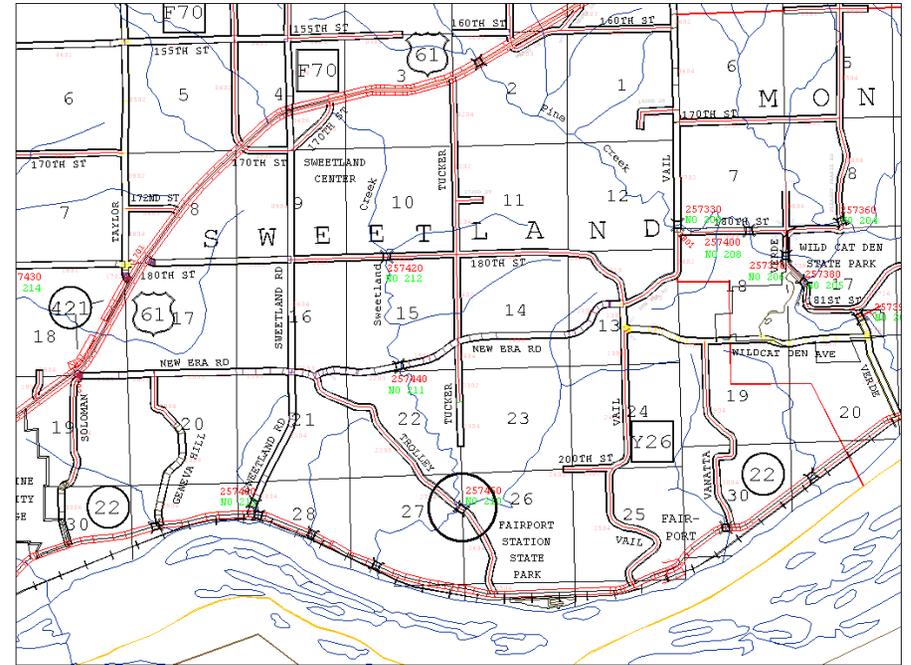
This single-span 68' by 20' concrete girder bridge carries local Trolley Road over a creek near Fairport Station State Park. It was constructed in 1956. The concrete girder superstructure is based on Standard Plan H1-3, the steel I-beam is of V9-5 type, and the reinforced concrete abutment is A-20.

The Trolley Road Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE
Trolley Road Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Muscatine County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 257450; "Plan and Profile of Proposed Improvement on the Secondary Road System, Muscatine County, Iowa: Bridge 194", Muscatine County Engineer's Office.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

York Avenue Bridge

FHWA: 257830

LOCATION

York Ave. over Mud Creek

Muscatine County, Iowa

S: 2 T: 78N R: 1E

DATE(S) OF CONSTRUCTION

1958

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 55

total length: 55

roadway wdt: 20

OWNER:

Muscatine County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Conc. abutment / Timber pile wingwalls

floor/decking: Concrete Cast-in-place

other features: Metal guardrail

This single-span 55' by 20' concrete girder bridge carries York Avenue over Mud Creek in Walcott. It was constructed in 1958 according to plans drawn by County Engineer J.R. Dougherty. The substructure is based on ISHC Standard Plan H1-4 while the superstructure is based in ISHC Standard Plan H1-2. The pilings are creosoted timber trestle piles.

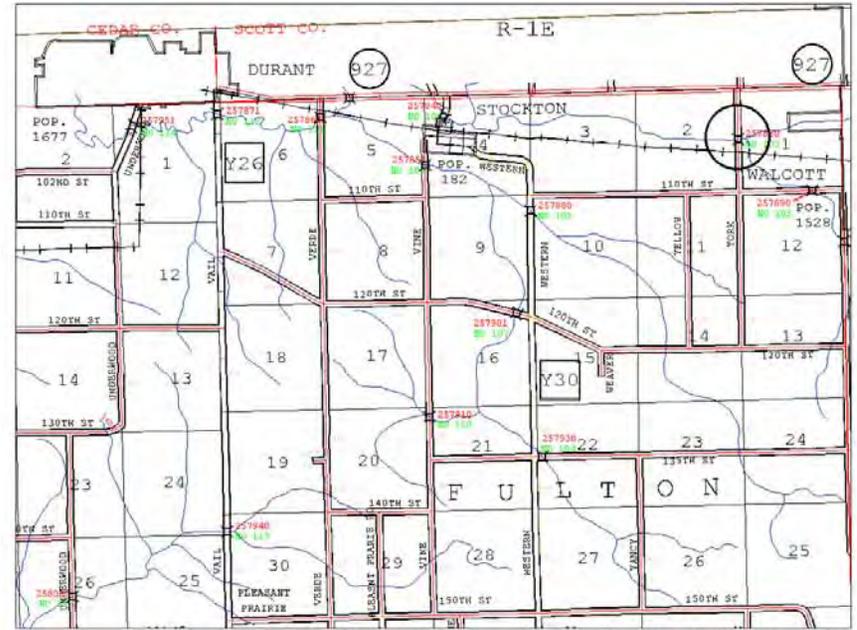
The York Avenue Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE

York Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 257830; Plans, "55x20 Concrete Girder Bridge, Creo. Wood Sub-Structure" (Muscatine County Engineer: Nov. 1957)

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

N. Isett Rd. Bridge

FHWA: 258160

LOCATION

N. Isett Rd. over Mosquito Creek

Muscatine County, Iowa

S: 27 T: 78N R: 2W

DATE(S) OF CONSTRUCTION

1956

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 68

total length:68

roadway wdt: 20

OWNER:

Muscatine County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Conc. abutment / Timber pile wingwalls

floor/decking: Concrete Cast-in-place

other features: Metal guardrail

This single-span 68' by 20' bridge carries local road N. Isett over Mosquito Creek southwest of Wilton. Timber pile and plank abutments / wingwalls support concrete girders. Plans on file at the Muscatine County Engineer's Office indicate that this bridge was constructed as part of the Farm to Market Roads program.

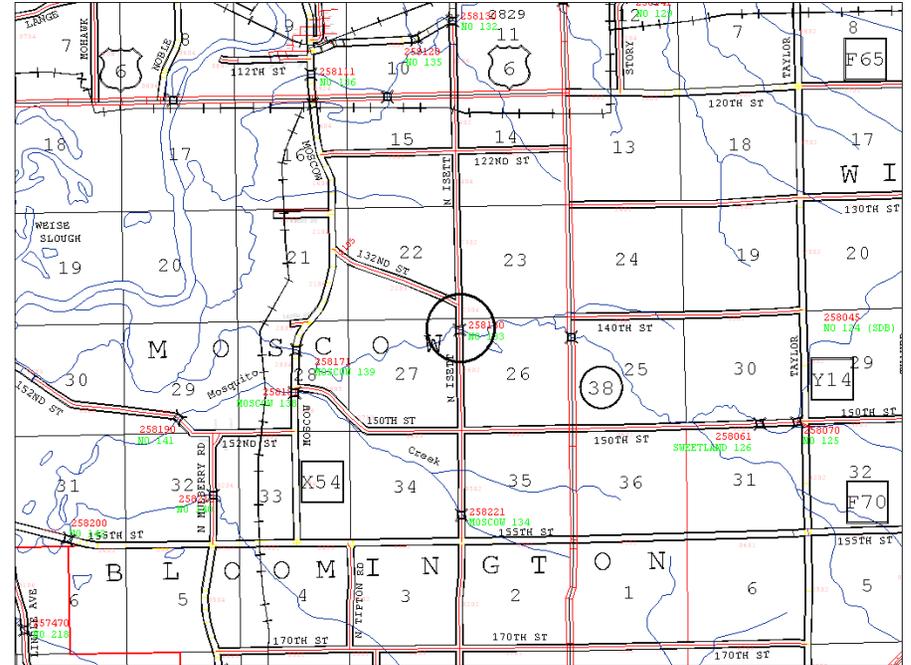
The N. Isett Road Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is over the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE

N. Isett Rd. Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Muscatine County, IA 2001

Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 258160; IA State Hwy. Comm. Std. Spec's for Construction on Farm to Market Roads, 1956 Series; Drawings, 67'-6"x20' I-Beam Bridge No. 58, Project FM-441

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

200th Street Bridge

FHWA: 275070

LOCATION

200th Street over Mink Creek

Plymouth County, Iowa

S: 27 T: 92N R: 46W

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 4

span length: 53

total length:102

roadway wdt: 21.6

OWNER:

Plymouth County

superstructure: Timber Stringer/Beam/Girder

substructure: Wood, concrete and steel piers

floor/decking: Timber

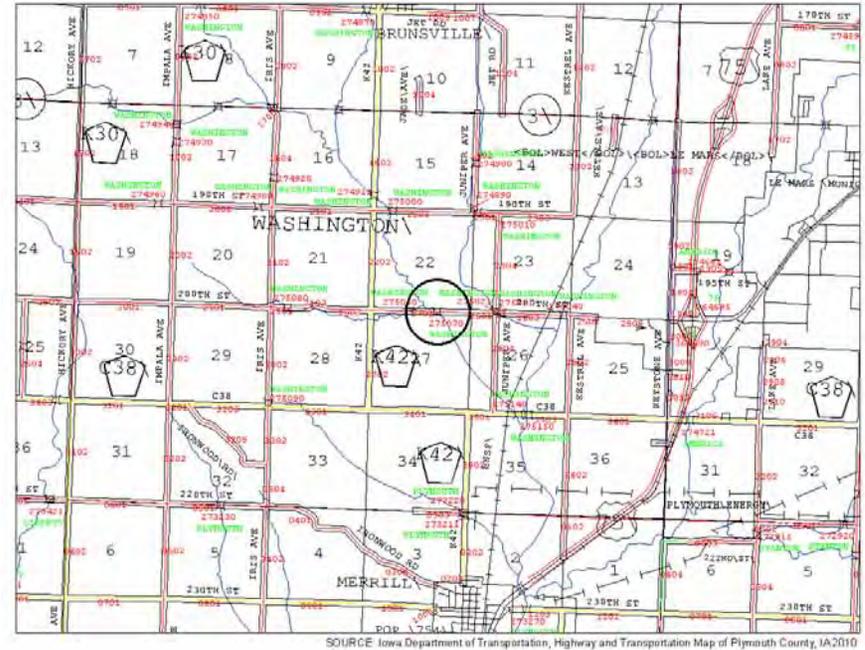
other features: Wood abutments

Carrying 200th Street over Mink Creek west of Le Mars, this four-span 102' by 21.6' steel and wood bridge was constructed in 1953. Originally having six spans and built entirely of timber, the center portion of the bridge was rebuilt following ice damage in the spring of 1982. Today, a combination of wood, concrete and steel piers support timber beams over three short spans while steel girders support the 53' center span. The decking consists of gravel over corrugated metal over wood.

The bridge was included in the Phase II survey as it had timber spans over 40' in length that according to the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970, "...should be individually evaluated for unique characteristics." However, the longest center span that was 53' long has been replaced with steel members. This alteration has diminished the integrity of the bridge's design, materials, workmanship, feeling and association. Therefore, the 200th Street Bridge is not eligible for inclusion in the NRHP under any criteria as it does not meet the registration requirements outlined in the MPDF Highway Bridges in Iowa: 1942-1970.

NAME(S) OF STRUCTURE
200th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 275070; Plymouth County Bridge Survey Report - 1980, 1982, 1988

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

500th Street Bridge

FHWA: 279660

LOCATION

500th St. over Big Cedar Creek

Pocahontas County, Iowa

S: 30 T: 92N R: 33W

DATE(S) OF CONSTRUCTION

1955

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Fair

span number: 1

span length: 24

total length:25

roadway wdt: 20.7

OWNER:

Pocahontas County

superstructure: Conc T-Beam

substructure: Timber pile and plank abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrails

This single-span 25' by 20.7' bridge carries local 500th Street over Big Cedar Creek Drainage Ditch #21. It was constructed in 1955 and is located northwest of Pocahontas.

The bridge was included in the Phase II survey as it was one of two bridges that were classified as "Concrete Other" (Type 100) in the SI&A database. Research conducted at the Pocahontas County Engineer's office indicates that this bridge is actually a Type 104 (Concrete T-Beam) Bridge. As such, the bridge does not meet the registration requirements for Type 104 bridges outlined in the MPDF, Highway Bridges in Iowa: 1942-1970, which selects Type 104 bridges with spans of over 70' for Phase II consideration. The 500th Street Bridge with its single span of 24' doesn't meet any of the other registration requirements. Therefore, the 500th Street Bridge is not eligible for inclusion in the NRHP under any criteria.

NAME(S) OF STRUCTURE
500th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 279660

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

IA 316 Bridge
FHWA: 280555

LOCATION

IA 316 over DSM River
Polk County, Iowa

S: 12 T: 77N R: 22W

DATE(S) OF CONSTRUCTION

1968

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (< 50 yrs. old)

CONDITION

Good

span number: 5
span length: 188
total length:2139
roadway wdt: 27.9

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)
substructure: Concrete piers
floor/decking: Concrete Cast-in-place
other features: Steel continuous welded I-girders; conc. Guardrail

Carrying State Hwy. 316 over the Des Moines River between Runnells and Swan, this 2,139' by 27.9' bridge was constructed in 1968. Concrete piers support steel continuous welded I-girders with diaphragms beneath cast-in-place decking. The bridge was built to replace two county roads that would be flooded by the construction of Red Rock Dam and Reservoir. Bids for construction of the bridge were announced by the Army Corps of Engineers in September 5, 1965 (*DSM Register* Sept. 5, 1965:8-L). There must not have been any suitable bids, as the Army Corps of Engineers built the bridge themselves for \$950,000. Known as the J&R Bridge, the structure was opened to traffic in December 1968 (*DSM Register* Dec. 9, 1968:4). A railroad bridge carrying the Wabash and Burlington RR sits alongside the IA 316 Bridge.

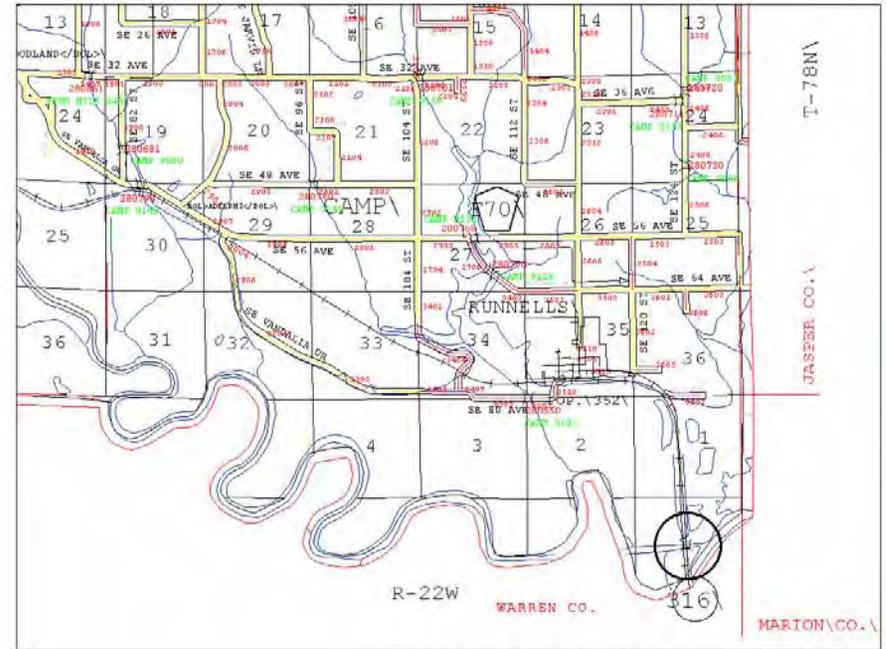
The bridge was included in the Phase II survey as it is a large bridge of exceptional span or overall length, which according to the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970 is a bridge that is over 2,000' feet in length. The bridge is 2,139' long with a main span of 188', which is in the upper 95th percentile for main span length. The bridge is also associated with the construction of the Red Rock Dam and Reservoir as it was built to span the wider channel of the Des Moines River. As such, the IA 316 Bridge is eligible for inclusion in the NRHP under Criterion C as it does meet the registration requirements outlined in the MPDF Highway Bridges in Iowa: 1942-1970. However, the viaduct is less than 50 years of age and does not possess characteristics of exceptional importance to be considered eligible under Criteria Consideration G, as is also stated in the registration requirements of the MPD. When the bridge reaches 50 years of age, it should be considered eligible under the above mentioned criteria.

The Red Rock Dam project was authorized in the Flood Control Acts of June 1938 and December 1944. In June 1944, the Senate Commerce Committee approved \$15 million of the \$1 billion national flood control program for a large dam to the southeast of Des Moines (*Council Bluffs Nonpareil* June 25, 1944:7). Floods in 1947 prompted a second dam on the Des Moines River at Saylorville (*Pella Chronicle* July 19, 1956:1). In 1956, planning for the project began. On June 4, 1960, the groundbreaking ceremony was held (*Pella Chronicle* June 9, 1960:1). Approximately 86 miles of railroad, 10 miles of state highway, 85 miles of county roads, and numerous bridges in the area would be impacted, either through submersion or relocation (*Pella Chronicle-Advertiser* September 3, 1969:9B). Thus, while the dam was being built, several new bridges and roads were constructed. The 5,653' Iowa 14 Bridge over the Des Moines River / Red Rock Lake (FHWA #35200) was designed by the Iowa Highway Commission and opened to traffic on November 4, 1965. The total cost of the bridge was \$2,400,600. The concrete road over the spillway and dam (FHWA #240385) was one of the last items constructed in 1967 (*Pella Chronicle-Advertiser* January 30, 1968:1). The IA 316 Bridge (FHWA #280555) between Runnells and Swan was completed in 1968. New bridges also had to be built for relocated routes such as IA 5 southwest of Knoxville. On March 17, 1969, the dam went into operation and the permanent pool level of 725' was reached in three days due to the spring melt (*Pella Chronicle-Advertiser* September 3, 1969:Special Insert, p.7). The Red Rock Dam and Reservoir was dedicated on September 6, 1969. Four days of festivities accompanied the dedication of the dam. When completed, the 6,300-acre dam was the largest man-made lake in Iowa.

NAME(S) OF STRUCTURE

IA 316 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 280555; *Pella Chronicle* 1966-1968; *Council Bluffs Nonpareil* 1944; *Des Moines Register* 1965-1968.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Madrid Avenue Bridge

FHWA: 283308

LOCATION

Madrid Avenue over Big Creek

Polk County, Iowa

S: 35 T: 81N R: 25W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible (< 50 yrs. old)

CONDITION

Good

span number: 3

span length: 171

total length: 445

roadway wdt: 30

OWNER:

Iowa Department of Transportation

superstructure: Steel Continuous Welded I-Girder w/Diaphragms (3+ Gdrs)

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Steel cont. welded I-girders; steel guardrails

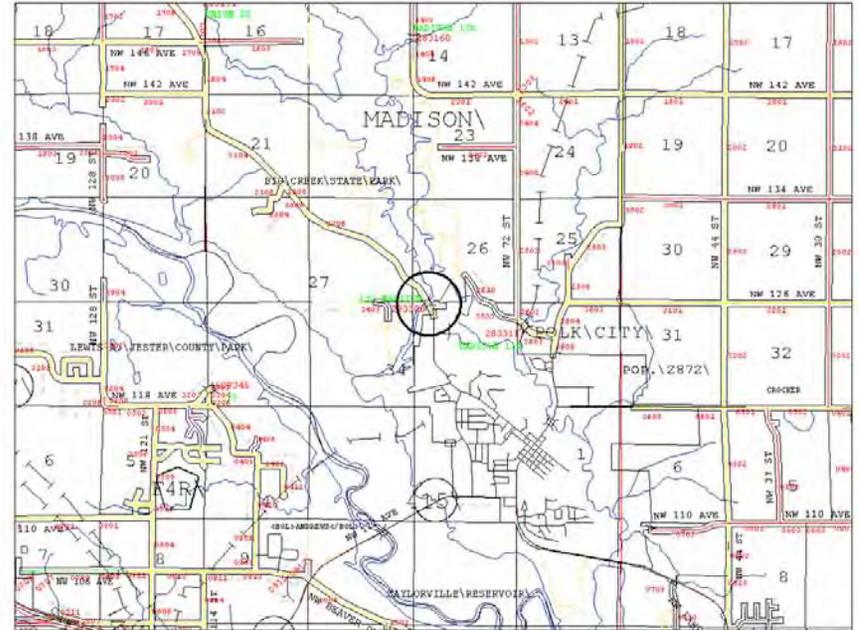
This three-span 445' by 30' bridge carries NW Madrid Avenue over Big Creek on the western outskirts of Polk City. Concrete piers support steel continuous welded I-girders with diaphragms. Though no specific information could be found on the construction of the bridge, it was part of the Saylorville Reservoir project. The floods of 1940s prompted the Army Corps of Engineers to propose Saylorville Lake as additional water storage to supplement the Red Rock Reservoir. In July 1965, excavation work for the spillway and construction of the first section of the earth embankment for the west part of the dam began. Construction of the concrete dam itself began in May 1967 and was completed in December 1971. The final section of the earth embankment was completed in October 1975. The final section of the dam was built across the old channel of the Des Moines River between July and October 1975. The dam and lake were finally completed and the conservation pool level was met in September of 1977. Saylorville Lake encompasses 5,950 acres and extends approximately 17 miles upstream from the dam (U.S. Army Corps of Engineers 2010).

This bridge was chosen for Phase II architectural survey as it appeared to potentially meet one of the registration requirements in the MPDF Highway Bridges in Iowa: 1942-1970 as a large bridge of exceptional span or overall length that are "in the upper 95th percentile of their type in main span length; or are of the longest span length for their type in Iowa; or are of exceptional overall length to represent a major engineering and construction effort from the state or local perspective." The Madrid Avenue Bridge is a steel continuous welded I-girder bridge (Type 423) that is in the 95th percentile in main span length. The 95th percentile for span length is 155'; while the length of the main span of the Madrid Avenue Bridge is 171'. Though this bridge is within the 95th percentile for span length; it does not represent a major engineering or construction effort. Type 423 bridges were built with spans of up to and above 300' in the early 1970s. Therefore, the bridge is not eligible for listing in the NRHP under Criterion C as it does not meet the registration requirement for large bridges of exceptional span or overall length that represent a major engineering and construction effort. While it is associated with the construction of Saylorville Lake, a major undertaking, the bridge does not meet Criteria Consideration G, as a structure of exceptional importance. When the bridge approaches 50 years of age, it should be reevaluated with respect to its eligibility under Criterion A for its association with the Saylorville Lake project.

NAME(S) OF STRUCTURE

Madrid Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 283308; Des Moines Register 1970-1971.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

80th Street Bridge

FHWA: 291570

LOCATION

80th St. bet. Searsboro and Montezuma

S: 5 T: 78N R: 15W

Poweshiek County, Iowa

DATE(S) OF CONSTRUCTION

1957

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not eligible

CONDITION

Good

span number: 1

span length: 79

total length: 79

roadway wdt: 59

OWNER:

Poweshiek County

superstructure: Timber Stringer/Beam/Girder

substructure:

floor/decking: Timber

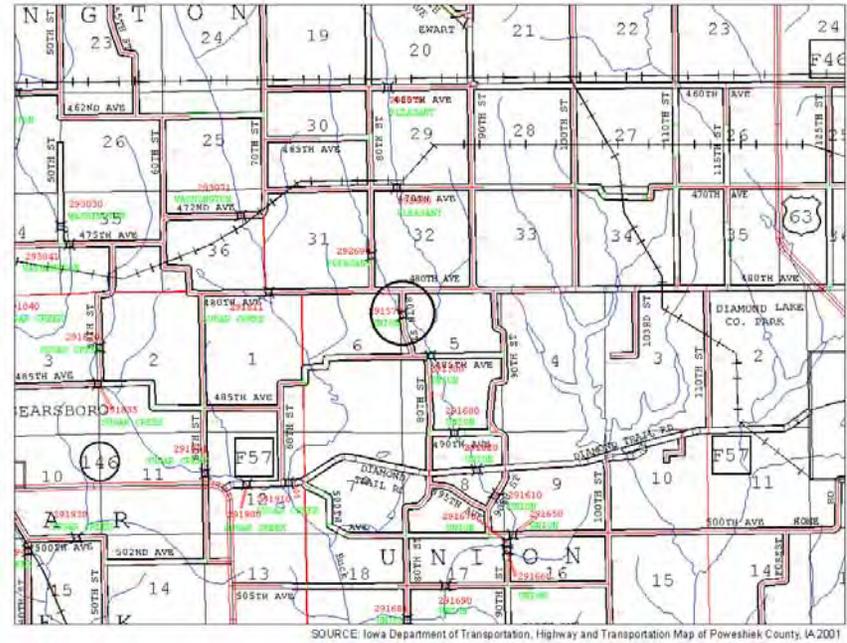
other features: Steel guardrail

Located between Searsboro and Montezuma, this single-span 42' by 24' timber bridge carries 80th Street over a stream. Timber piling and plank abutments support a timber beam substructure and timber decking. The bridge is comprised of five timber stringers supported by 4 3"x12" caps on each end. The bridge has deteriorated curbs and cracked and rotting stringers according to an inspection completed in 2006. It appears that the railing has also been removed.

Registration requirements in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that bridges of the Type 702 that are above 40' in length could have unique characteristics that may warrant eligibility for inclusion in the NRHP. Although this bridge is over 40' in length; it does not exhibit unique characteristics that would warrant its inclusion in the NRHP. The bridge has a simple timber stringer system supported by paired sawn timber that form the caps. Moreover, the bridge has diminished integrity with deterioration in the abutments, stringers, and curbs. Therefore, the bridge is not eligible for inclusion in the NRHP under any criteria.

NAME(S) OF STRUCTURE
80th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 291570

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

1100th Street Bridge

FHWA: 305530

LOCATION

1100th Street over Keg Creek

Shelby County, Iowa

S: 12 T: 79N R: 40W

DATE(S) OF CONSTRUCTION

1954

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 51

total length: 52

roadway wdt: 19.8

OWNER:

Shelby County

superstructure: Prestressed Conc Channel beam

substructure:

floor/decking: Concrete Cast-in-place

other features: Steel guardrail, timber abutments

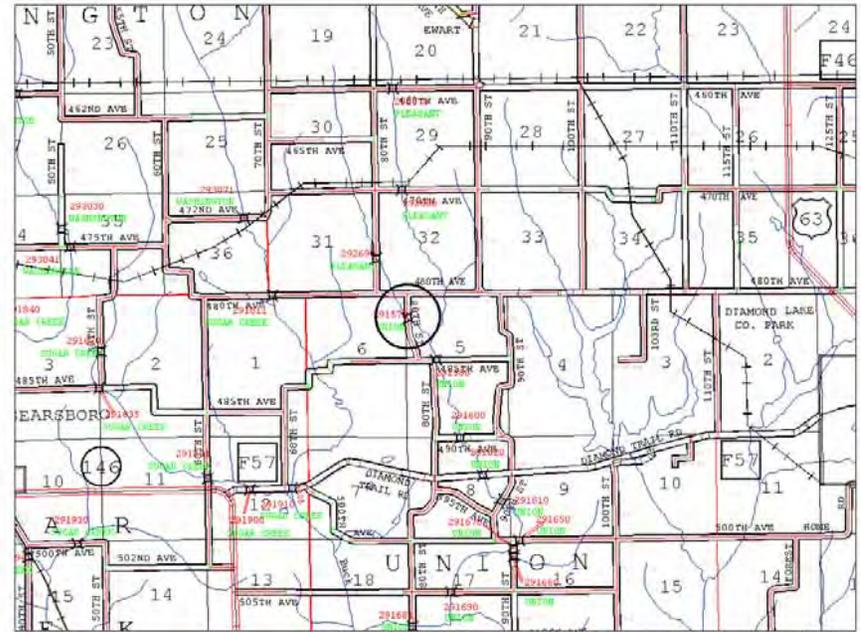
This single-span 52' by 20' concrete girder bridge carries local 1100th Street over Keg Creek between Harlan and Portsmouth. Prestressed concrete channel beams support cast-in-place decking. Through the 1950s, Shelby County endeavored to improve its road system by using crushed stone and hard surfacing. As these projects were conducted bridges and culverts were built. By March 1953, the county only had 390 miles of improved surface road of a total 981 miles (Harlan Tribune 1953).

The 1100th Street Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970. Registration requirements under Criterion C state that channel beams in excess of 50' in length are of exceptional span and should be eligible for listing in the NRHP. As the 1100th Street Bridge is 51' in length, it meets the registration requirement and is therefore eligible for listing in the NRHP under Criterion C.

The concrete Channel Beam bridge [Type 122], can be thought of as a box girder without a bottom flange. Conventionally reinforced concrete channel beams (as opposed to prestressed channel beams [Type 522]) are pre-cast units in standard lengths commonly between 20' and 70' although the vast majority in Iowa are in the 24' to 45' range. Like the box beam, the units are placed side-by-side with the top flanges abutting to form the roadway slab. Concrete channel beam bridges in Iowa were more widely used than concrete box beams. With an open bottom, the channel form was especially adaptable to precasting for short spans with greater ease than the box-section girder. Shelby County has 12 of the 17 prestressed concrete channel beam bridges in the state including the first of the type built in 1950.

NAME(S) OF STRUCTURE
1100th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 305530; 2007 Inspection Report, Shelby County Bridge No. Lincoln 99-18-110; *Harlan Tribune* 1953.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

167th Street Bridge

FHWA: 325310

LOCATION

167th Street over Four Mile Creek

S: 2 T: 72N R: 28W

Union County, Iowa

DATE(S) OF CONSTRUCTION

1952

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 55

total length: 57

roadway wdt: 20

OWNER:

Union County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: Creosoted timber pile abutments

floor/decking: Concrete Cast-in-place

other features: Metal guardrail

This single-span 57' by 20' concrete girder bridge carries 167th Street over Four Mile Creek north of Thayer. Constructed in 1952, the bridge was built according to the Iowa State Highway Commission's Design # 1052. It replaced an earlier bridge and utilized 89.7 cubic yards of concrete, 16,340 pounds of reinforced steel, 6,036 pounds of structural steel, 158 pounds of hardware, and 920 linear feet of creosoted piling.

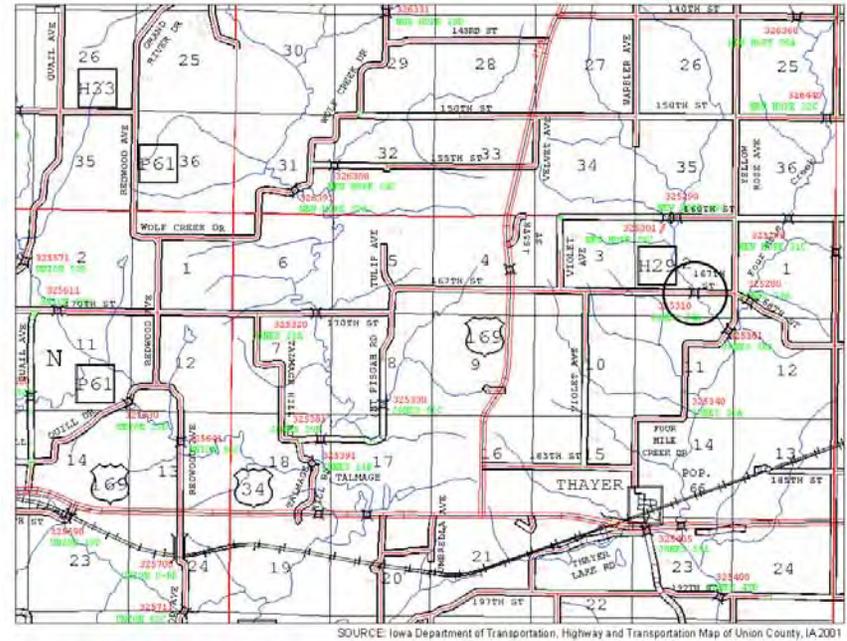
The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The 167th Street Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined above. The bridge is a concrete girder structure (Type 102) that is 55' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE

167th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 325310; Drawings, "Iowa State Highway Commission Design for 55' x 20' Conc. Girder Bridge, Secondary Road System S.N. Project No. 1600, Union County" (April 1952).

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

297th Street Bridge

FHWA: 335570

LOCATION

297th Street over Buff Creek

Washington County, Iowa

S: 12 T: 74N R: 6W

DATE(S) OF CONSTRUCTION

1955

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 68

total length: 69

roadway wdt: 20.3

OWNER:

Washington County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: N/A

floor/decking: Concrete Cast-in-place

other features: creosoted wood abutments

This single-span 69' by 20' concrete girder bridge carries 297th Street over Buff Creek two miles northeast of Crawfordsville. Timber pile and plank abutments / wingwalls support concrete girders.

The 297th Street Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

Underwood Avenue Bridge

FHWA: 336201

LOCATION

Underwood Avenue N of Ainsworth

S: 17 T: 75N R: 6W

Washington County, Iowa

DATE(S) OF CONSTRUCTION

1953

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Eligible (Criterion C)

CONDITION

Good

span number: 1

span length: 68

total length:70

roadway wdt: 20.2

OWNER:

Washington County

superstructure: Conc Stringer, Multi-beam or Girder

substructure: N/A

floor/decking: Concrete Cast-in-place

other features: creosoted wood abutments

This single-span 68' by 20.2' concrete girder bridge carries Underwood Avenue over the North Fork of Long Creek. Timber pile and plank abutments / wingwalls support concrete girders.

The Underwood Avenue Bridge is eligible for inclusion in the National Register of Historic Places as it meets one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: simple span bridges in excess of 50' in length. The bridge is a concrete girder structure (Type 102) that is 68' in length, which is at the 95th percentile for its type. The bridge has integrity of design, workmanship, feeling, association, setting, materials, and location.

The Concrete Stringer, Multi-beam or Girder bridge [Type 102], consists of a series of parallel reinforced concrete beams (meaning stringers, beams or girders), spanning between supports (abutments and piers), and spaced sufficiently close to one another to allow a concrete slab deck to span the distance between them while carrying the intended load. The terms stringer, beam and girder commonly refer to the relative size of the beams, girders being the largest. Since stringers, beams and girders all function structurally as beams; these types are generally all called beam bridges. The concrete beam bridge is also cast-in-place in either pre-made steel or wood forms or custom formwork made on site, which allows the size of the beams to be completely variable by the engineer for a given span.

NAME(S) OF STRUCTURE

Underwood Avenue Bridge

PHOTOS AND SKETCH MAP OF LOCATION



SOURCE: Iowa Department of Transportation, Highway and Transportation Map of Washington County, IA, 2001

Sources:

Highway Bridges in Iowa: 1942-1970, completed by The Louis Berger Group, Inc., March 2004.

Inventoried By:

Camilla Deiber

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US 34 Bridge

FHWA: 600954

LOCATION

EB US 34 over Keg Creek
Mills County, Iowa

S: 14 T: 72N R: 43W

DATE(S) OF CONSTRUCTION

1972

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 82

total length:246

roadway wdt: 40

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

Carrying Eastbound US 34 over Keg Creek west of Glenwood, this three-span 246' by 40' bridge has reinforced concrete piers; pretensioned, prestressed concrete beams; and a concrete cast-in-place deck. The center span is 81'6" and the end spans are 80'9". The bridge was designed by the ISHC in July 1970. The bids for the relocation on the southwest side of Glenwood were let in December 1971. A \$950,667 contract was let to A. M. Cohron and Son, Inc. of Atlantic, Iowa (*Glenwood Opinion Tribune* December 22, 1971:1). The bridge was constructed in 1972. The bridges were part of the relocation of U.S. 34 around the south side of Glenwood, which was not open for traffic until December 1973 (*Glenwood Opinion Tribune* Dec. 5, 1973:1). The ISHC held public hearings on the highway relocation in September 1970 and May 1971 (*Glenwood Opinion Tribune* 1970). The start of the project was delayed by lengthy right-of-way acquisitions that required condemnation hearings in May 1971 and the discovery of a ca. 1850 family cemetery and large pre-historic archaeological sites of the Glenwood Culture (900-1300 AD) near Pony Creek (*Glenwood Opinion Tribune* April 7, 1971:1; May 19, 1971:1). The project, which cut through the hills of Mills County, was also the largest earthmoving effort in the history of the ISHC requiring almost 6 million yards of dirt to be moved (*Glenwood Opinion Tribune* Aug. 23 1971:1).

The EB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 34 relocation does not appear to have been the direct cause of significant development or major changes in land use in Glenwood. Aerial photographs from the 1950s and 1990s show large residential developments on the north side of the city, north of 6th Street. The Glenwood Golf Course, built in 1964, is located on the northeast side of the city near these near developments. Some new commercial development is concentrated along S. Locust Street, which provides access to the city from relocated US 34. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: pretensioned, prestressed, concrete beam bridges. The bridge did not meet any of the Registrations Requirements for Type 502 bridges. The bridge was chosen for Phase II evaluation under potential eligibility under Criterion A. The dual bridges were listed in the SI&A database as being built in 1969. ISHC blueprints and newspaper research revealed that the bridges were completed in 1972.

NAME(S) OF STRUCTURE
EB US 34

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 600954; Design for Dual 243'x40' Pretensioned, Prestressed Concrete Beam Bridges, ISHC, July 1970; *Glenwood Opinion Tribune* 1969-1973.

Inventoried By:

Kristie Baynard

Affiliation:

he Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 34 Bridge

FHWA: 600956

LOCATION

WB US 34 over Keg Creek
Mills County, Iowa

S: 14 T: 72N R: 43W

DATE(S) OF CONSTRUCTION

1972

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible

CONDITION

Good

span number: 3

span length: 82

total length:246

roadway wdt: 40

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers

floor/decking: Concrete Cast-in-place

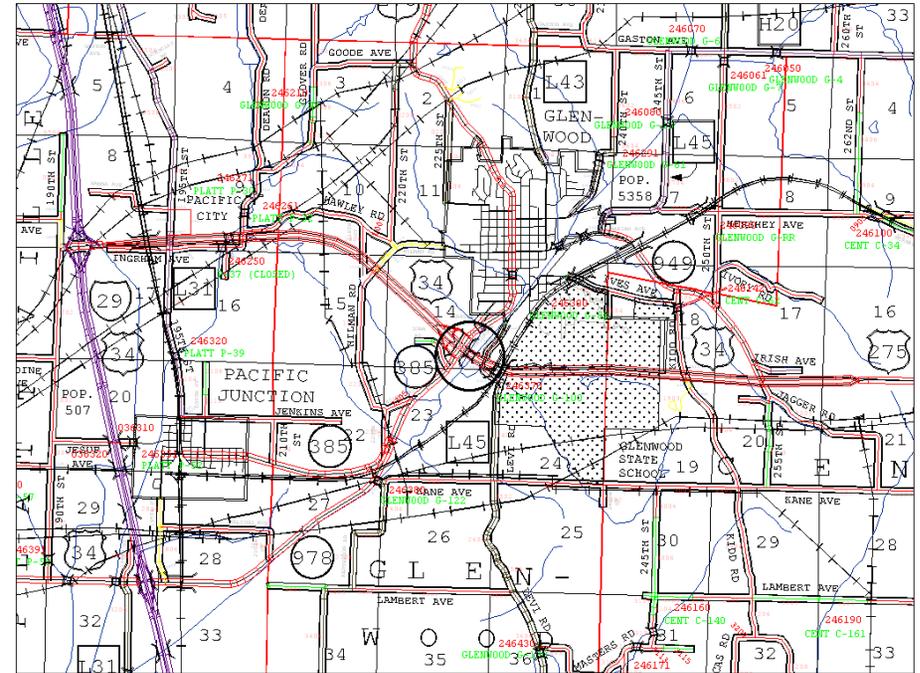
other features: Concrete guardrails

Carrying Eastbound US 34 over Keg Creek west of Glenwood, this three-span 246' by 40' bridge has reinforced concrete piers; pretensioned, prestressed concrete beams; and a concrete cast-in-place deck. The center span is 81'6" and the end spans are 80'9". The bridge was designed by the ISHC in July 1970. The bids for the relocation on the southwest side of Glenwood were let in December 1971. A \$950,667 contract was let to A. M. Cohron and Son, Inc. of Atlantic, Iowa (*Glenwood Opinion Tribune* December 22, 1971:1). The bridge was constructed in 1972. The bridges were part of the relocation of U.S. 34 around the south side of Glenwood, which was not open for traffic until December 1973 (*Glenwood Opinion Tribune* Dec. 5, 1973:1). The ISHC held public hearings on the highway relocation in September 1970 and May 1971 (*Glenwood Opinion Tribune* 1970). The start of the project was delayed by lengthy right-of-way acquisitions that required condemnation hearings in May 1971 and the discovery of a ca. 1850 family cemetery and large pre-historic archaeological sites of the Glenwood Culture (900-1300 AD) near Pony Creek (*Glenwood Opinion Tribune* April 7, 1971:1; May 19, 1971:1). The project, which cut through the hills of Mills County, was also the largest earthmoving effort in the history of the ISHC requiring almost 6 million yards of dirt to be moved (*Glenwood Opinion Tribune* Aug. 23 1971:1).

The WB US 34 Bridge does not meet any of the Registration Requirements outlined in the MPD, Highway Bridges in Iowa: 1942-1970. The bridge was not part of a first highway crossing of a major waterway. The US 34 relocation does not appear to have been the direct cause of significant development or major changes in land use in Glenwood. Aerial photographs from the 1950s and 1990s show large residential developments on the north side of the city, north of 6th Street. The Glenwood Golf Course, built in 1964, is located on the northeast side of the city near these near developments. Some new commercial development is concentrated along S. Locust Street, which provides access to the city from relocated US 34. Lastly, the bridge was part of a major state highway project; however, the bridge does not possess special characteristics, associations, or integrity that distinguishes it as an exceptional representative of the type: pretensioned, prestressed, concrete beam bridges. The bridge did not meet any of the Registrations Requirements for Type 502 bridges. The bridge was chosen for Phase II evaluation under potential eligibility under Criterion A. The dual bridges were listed in the SI&A database as being built in 1969. ISHC blueprints and newspaper research revealed that the bridges were completed in 1972.

NAME(S) OF STRUCTURE
WB US 34 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 600956; Design for Dual 243'x40' Pretensioned, Prestressed Concrete Beam Bridges, ISHC, July 1970; *Glenwood Opinion Tribune* 1969-1973.

Inventoried By:

Kristie Baynard

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

EB US30/US 61 Bridge

FHWA: 602830

LOCATION

US 30/61 over Silver Creek and RR

Clinton County, Iowa

S: 13 T: 81N R: 3E

DATE(S) OF CONSTRUCTION

1974

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 yrs. old)

CONDITION

Good

span number: 6

span length: 91

total length:425

roadway wdt: 40

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This six-span 425' by 40' prestressed concrete bridge was constructed in 1974. The double bridge is located on State Highway 61 approximately one mile west of Dewitt. The bridge, set at a 14 degree skew, has 50' and 41' end spans and 55' and 91' interior spans. The 41' span on the north end of the bridge was added during construction in 1974 as the soils for the original abutment were not adequate. The decking is cast-in-place concrete. In 2001, the end of the concrete beams were repaired and concrete sealer was applied.

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: Concrete bridges that are in the upper 95th percentile of their type in main span length. Upon completion of research, it was discovered that the bridge was built in 1974, not 1970 as indicated in the SI&A database. Thus, the structure falls outside the Phase II study period. Original plans for both the WB and EB bridges under Design #1969 were prepared by Wallace Holand Kastler Schmitz & Company of Mason City in early 1971. Though the main span of the bridge does meet the registration requirements for 95th percentile of the main span length, the bridge does not possess characteristics of exceptional importance to be considered NR eligible as a structure that is less than 50 years of age.

NAME(S) OF STRUCTURE
EB US30/US 61 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 602830; Blueprints, Design Number 1969, Design for Dual Pretensioned, Prestressed Concrete Beam Bridges, ISHC/WHKS & Co.; Blueprints, Design Number 275, Design for Adding 40' Span, ISHC; Blueprints, Design Number 101, Design for Repairs to Dual Prestressed Concrete Beam Bridges.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

WB US 30/US 61 Bridge

FHWA: 602832

LOCATION

US30/61 over Silver Creek and RR

Clinton County, Iowa

S: 13 T: 81N R: 3E

DATE(S) OF CONSTRUCTION

1974

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 yrs. old)

CONDITION

Good

span number: 6

span length: 92

total length:425

roadway wdt: 40

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features: Concrete guardrails

This six-span 425' by 40' prestressed concrete bridge was constructed in 1974. The double bridge is located on State Highway 61 approximately one mile west of Dewitt. The bridge, set at a 14 degree skew, has 50' and 41' end spans and 55' and 91' interior spans. The 41' span on the north end of the bridge was added during construction in 1974 as the soils for the original abutment were not adequate. The decking is cast-in-place concrete. In 2001, the end of the concrete beams were repaired and concrete sealer was applied.

The bridge was included in the Phase II architectural survey as it met one of the registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970: Concrete bridges that are in the upper 95th percentile of their type in main span length. Upon completion of research, it was discovered that the bridge was built in 1974, not 1970 as indicated in the SI&A database. Thus, the structure falls outside the Phase II study period. Original plans for both the WB and EB bridges under Design #1969 were prepared by Wallace Holand Kastler Schmitz & Company of Mason City in early 1971. Though the main span of the bridge does meet the registration requirements for 95th percentile of the main span length, the bridge does not possess characteristics of exceptional importance to be considered NR eligible as a structure that is less than 50 years of age.

NAME(S) OF STRUCTURE
WB US 30/US 61 Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 602832; Blueprints, Design Number 1969, Design for Dual Pretensioned, Prestressed Concrete Beam Bridges, ISHC/WHKS & Co.; Blueprints, Design Number 275, Design for Adding 40' Span, ISHC; Blueprints, Design Number 101, Design for Repairs to Dual Prestressed Concrete Beam Bridges.

Inventoried By:

Michael C. Yengling

Affiliation:

The Louis Berger Group, Inc.

HAER INVENTORY

Iowa Historic Bridge Inventory

NAME(S) OF STRUCTURE

4th Street Bridge

FHWA: 602945

LOCATION

4th Street over US 34

Des Moines County, Iowa

S: 33 T: 70N R: 2W

DATE(S) OF CONSTRUCTION

1970

USE (ORIGINAL/CURRENT)

Roadway bridge / Roadway bridge

RATING: Not Eligible (< 50 years of age)

CONDITION

Good

span number: 4

span length: 61

total length:206

roadway wdt: 42

OWNER:

Iowa Department of Transportation

superstructure: Prestressed Conc Stringer/Beam/Girder

substructure: Concrete piers and abutments

floor/decking: Concrete Cast-in-place

other features:

Carrying 4th Street over US 34 in Burlington, this four-span 206' by 42' pretensioned, prestressed concrete beam bridge was built as part of the Highway 34 relocation in downtown Burlington. Concrete piers and abutments support concrete beams and concrete cast-in-place decking. The piers are supported by concrete footings; while the abutments are supported with steel pilings. The two center spans measure 60' 8" long. The approach spans measure 47' 5" and 34' 11" long. The bridge was designed by Sverdrup & Parcel and Associates, Inc. of St. Louis for the Iowa State Highway Commission in September 1969. In October 2008, repairs were made to the bridge floor, Pier #3, abutment backwalls, and aluminum handrails.

Plans for the relocation of U.S. Highway 34 through Burlington were announced by the ISHC on November 11, 1965. The new four-lane "superhighway" would run from the MacArthur Bridge in downtown Burlington to ¾ miles west of West Burlington. At that time the ISHC estimated the project would cost \$5-8 million. Reasons for the relocation were to provide quick access to downtown, relieve congestion in several areas along the original route, to provide a link between downtown and shopping areas near Roosevelt Avenue (*The Hawk Eye*, Nov. 11, 1965:1). ISHC Vice-Chairman, Derby Thompson of Burlington, was the main champion of the highway project, which prompted ire from other communities with no freeways. The routing of the highway through the historic North Hill neighborhood was the chief complaint of local residents, who preferred a bypass around the city (*The Hawk Eye*, Dec. 3, 1965:2). Burlington Mayor, Carl Hoschek, did not approve the highway plan until October 30, 1967 (*The Hawk Eye*, Nov. 9, 1976:3). Many of the residences in the North Hill area were large 19th century mansions. Though bids for demolition were taken in August, demolitions did not begin until March 1969 (*The Hawk Eye*, August 14, 1968:1). Construction began in November 1969. Large areas of rock had to be blasted out west of 6th Street before grading could begin. Bids for bridges and structures were taken in January 1970. The overpass bridges on 4th and 5th Street were opened in early January 1971 to no fanfare. Indeed, only a Hawk Eye reporter and his wife marked the occasion by taking a "brisk stroll" across the opened bridges (*The Hawk Eye*, Jan. 6, 1971:3). The first section of the freeway, from the bridge and Central Avenue wasn't open until February 2, 1974, much of the delay caused by contentious right of way acquisitions (*The Hawk Eye*, Nov. 9, 1976:3). The second segment of the route, from Central to Roosevelt Avenue was opened on June 13, 1975 with a ribbon cutting ceremony beneath a bridge, which served as shelter from a heavy downpour (*The Hawk Eye*, Nov. 9, 1976:3). On November 10, 1976, eleven years after the project was first proposed, the entire length of the highway was open. Two busloads of local and state officials including former ISHC Vice-Chairman Derby Thompson, traveled the \$26 million, 5.5 mile freeway to a ribbon cutting ceremony downtown.

The 4th Street Bridge was included for Phase II evaluation under Criterion A as it was a new bridge built as part of a relocation of US Highway 34 through Burlington. Registration requirements outlined in the Multiple Property Documentation Form, Highway Bridges in Iowa: 1942-1970 state that a bridge can be eligible under Criterion A if it "established a new highway transportation corridor, and can be shown to have been the direct cause of significant development or changes in land use." The US 34 relocation does not appear to have been the direct cause of significant development or major changes in land use in Burlington. While the highway certainly changed the land use of property in the path of its construction, it appears that the artery had little effect on adjacent property. However, aerial photographs from the 1950s, 1960s, and 1990s show large commercial developments on the north, west, and south west sides of West Burlington. The Great River Medical Center and Southeastern College at Burlington were constructed along W. Agency Road along with other large commercial and industrial businesses. Westland Mall was constructed on the east side of Gear Ave. north of the new highway. The intersection with US Highway 61 also saw commercial development. Given these facts, LBG concludes that the 4th Street Bridge does meet registration requirements under Criterion A as part of a new highway corridor that was the direct cause of significant development in West Burlington. The bridge does not meet any of the other registration requirements for Type 502 bridges. However, the bridge is less than 50 years of age and does not possess characteristics of exceptional importance as outlined in the registration requirements; hence, the structure does not meet Criteria Consideration G. The bridge does not meet any of the other registration requirements for Type 502 bridges.

NAME(S) OF STRUCTURE

4th Street Bridge

PHOTOS AND SKETCH MAP OF LOCATION



Sources:

Design 203' x 42' Pretensioned, Prestressed Concrete Beam Bridge, Des Moines County, Sverdrup & Parcel and Associates, Inc., September 1969; Design for Repairs to 203'x42' Pretensioned, Prestressed Concrete Beam Bridge, Des Moines County, IDOT, October 2008. *Burlington Hawk-Eye* 1965-1976.

Inventoried By:

Camilla R. Deiber

Affiliation:

The Louis Berger Group, Inc.