

FINDING OF NO SIGNIFICANT IMPACT

FINAL SECTION 4(f) STATEMENT

**U.S. 18 RECONSTRUCTION
IN MASON CITY
CERRO GORDO COUNTY
PROJECT NO. F-18-5**

PREPARED BY

**IOWA DEPARTMENT OF TRANSPORTATION
PLANNING AND RESEARCH DIVISION
OFFICE OF PROJECT PLANNING**

IN COOPERATION WITH

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION**

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U.S. 18 RECONSTRUCTION FROM ILLINOIS AVENUE
EAST 2.8 MILES IN
MASON CITY, CERRO GORDO COUNTY

Project No. F-18-5

FINDING OF NO SIGNIFICANT IMPACT

and

FINAL SECTION 4(f) STATEMENT

Submitted pursuant to 42 USC(2)(c) and 49 USC 1653(f)

Prepared by

IOWA DEPARTMENT OF TRANSPORTATION
PLANNING AND RESEARCH DIVISION
OFFICE OF PROJECT PLANNING

in cooperation with

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

The following persons may be contacted for
additional information concerning this document:

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Federal Highway Administration
U.S. Department of Transportation
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Ames, Iowa 50010
515-233-1664

Mr. Harry S. Budd
Project Planning Engineer
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
515-239-1225

FEDERAL HIGHWAY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT

For

Reconstruction of U.S. 18 from Illinois Avenue east
2.8 miles in Mason City, Cerro Gordo County, Iowa

The FHWA has determined that this project will not have any significant impact on the human environment. This finding of no significant impact is based on the attached environmental assessment and 4(f) statement, which have been independently evaluated by FHWA and determined to adequately and accurately discuss the environmental issues and impacts of the proposed project. They provide sufficient evidence and analysis for determining that an environmental impact statement is not required. The FHWA takes full responsibility for the accuracy, scope, and content of the attached environmental assessment and final 4(f) statement.

6-10-82
Date



For the Division Administrator

TABLE OF CONTENTS

	Page
I. Project Background - Action Classification	3
II. Need For The Project	3
III. Description of Proposed Action	5
IV. Alternatives	6
A. Estimated Project Costs	17
V. Project Impacts	17
A. Socio-Economic Impacts	17
1. Relocation Impacts	17
B. Environmental Impacts	18
1. Air, Noise and Water Pollution	18
2. Parks and Recreation Facilities	22
3. Cultural Resources	23
C. Mitigation Measures	23
VI. Comments and Coordination	24
VII. Summary	25

List of Figures and Plates

	Page
Figure 1, Project Area.....	4
Figure 2, Winnebago River Bridge.....	19
Figure 3, Project Impacts on Asbury Park.....	20
Figure 4, Project Impacts on Mason City School Property	21
Plate 1, Aerial Photograph	7
Plate 2, Aerial Photograph	8
Plate 3, Aerial Photograph	9
Plate 4, Aerial Photograph	10
Plate 5, Aerial Photograph	11
Plate 6, Aerial Photograph	12
Plate 7, Aerial Photograph	13
Plate 8, Aerial Photograph	14
Plate 9, Aerial Photograph	15
Plate 10, Aerial Photograph	16

I. PROJECT BACKGROUND-ACTION CLASSIFICATION

In February of 1973 a planning report was published for the improvement of U.S. 18 in Mason City. Included in that federal non-participating improvement was the section of U.S. 18 under consideration in this proposed project. (See Figure 1, Project Location.) In March of 1973 a corridor public hearing was held for the proposed U.S. 18 project, and in subsequent action the (then) Iowa State Highway Commission approved construction of Alternate 1 as outlined in the February, 1973, report, providing for a four-lane divided highway on existing alignment beginning at Illinois Avenue and proceeding approximately 2.8 miles east to a point just west of the Mason City east corporate limits. Included in this approved alternate were dual bridges over the Winnebago River. In 1975, however, the U.S. 18 improvement was removed from the Five-Year Program and activity on the project was terminated.

The 1977-82 Five-Year Program included the U.S. 18 project for replacement of the Winnebago River Bridge only. A project concept statement was developed for a single new replacement structure in May of 1977 and the concept was subsequently approved by Iowa DOT staff for further development.

In accordance with the state's Environmental Action Plan, this project could be classified as a non-major action, and the FHWA concurred on June 27, 1977. The A-95 review process was initiated in July, 1977. Comments received from affected agencies at that time are contained in the Comments and Coordination Section.

In December, 1977, a Cultural Resources Report was completed for the project. The findings of that report indicated no significant cultural or archaeological sites located in the immediate vicinity of the project corridor. It was determined, however, that the existing rainbow arch bridge over the Winnebago River represents a relatively rare type in Iowa, and it was subsequently determined to submit documentation of this structure to the Historic American Engineering Record (HAER) of the U.S. Department of Interior's Heritage Conservation and Recreation Service for review.

Results of the HAER review indicated the existing rainbow arch bridge over the Winnebago River to be an important type of an early 20th Century bridge. This review also recommended that a determination be made regarding bridge eligibility for the National Register of Historic Places. The FHWA consulted with the Iowa State Historic Preservation Officer (SHPO) and requested a determination of eligibility (DOE). The bridge was determined eligible June 29, 1978. (See Comments and Coordination.) Under revised policy and procedures effective November, 1979, this DOE for the National Register requires an EA or EIS for bridge replacement projects if the bridge is on or eligible for the National Register. In accord with Part 771 of the October 30, 1980, Federal Register, this environmental assessment has been prepared.

II. NEED FOR THE PROJECT

The existing 100-foot by 24-foot rainbow arch bridge was originally constructed in 1924. In 1954 the structure was renovated and a new wearing surface and four-foot sidewalk were added. (This structure is shown in Figure 2.)

U. S. 18 CERRO GORDO COUNTY

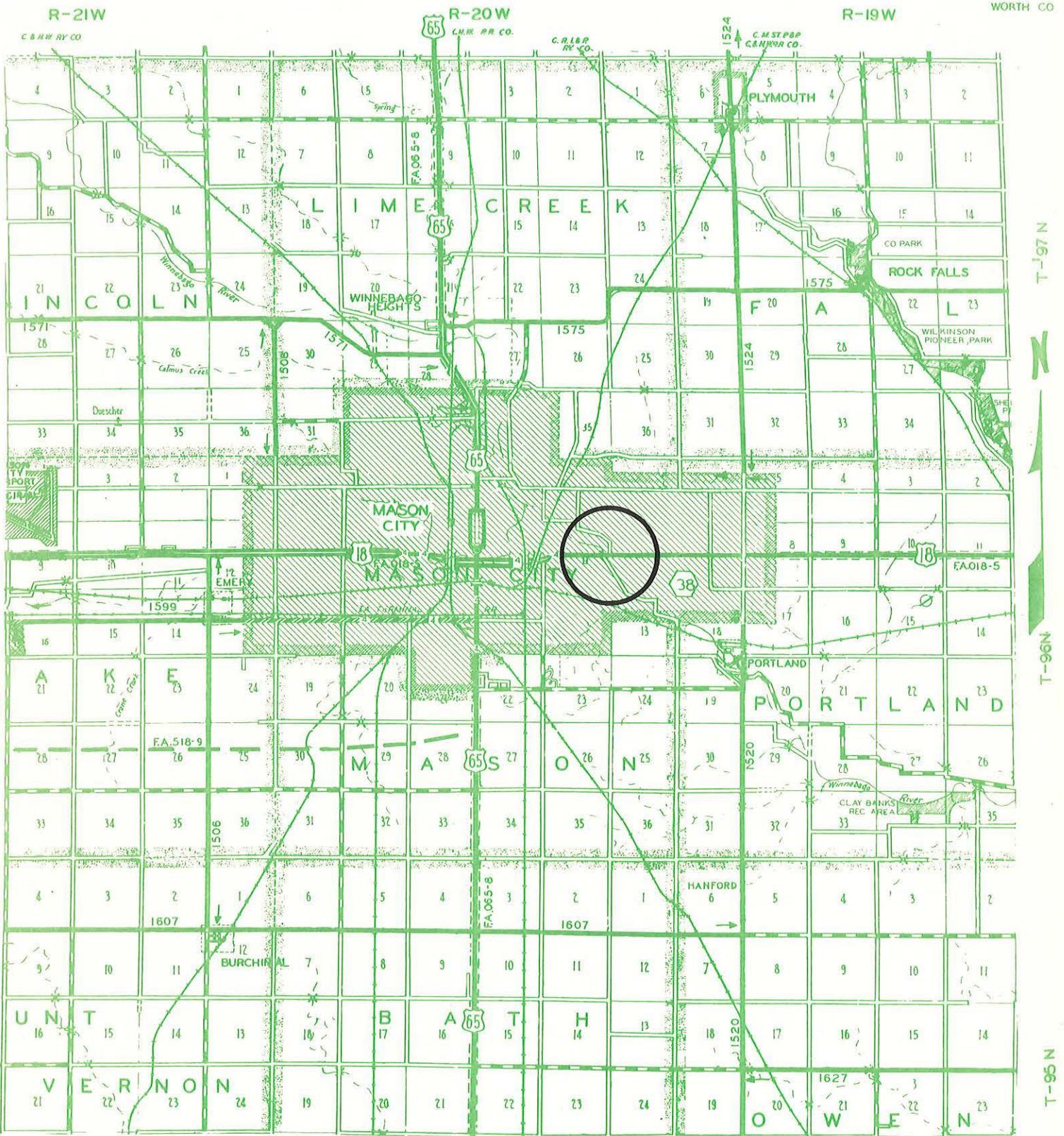


Figure 1

SCALE IN MILES



Project Area

The bridge was thoroughly inspected in July, 1974, in compliance with the provisions of the Emergency Bridge Inspection and Replacement Program. The Bridge Condition Report for this structure stated that safe load capacity of the bridge was only marginally adequate. This, together with the generally deteriorated structural condition of the bridge, high traffic volumes, deficient width, and four-lane reconstruction of the approach roadway warrant structure replacement.

The 1980 average annual daily traffic on this section of U.S. 18 is 7,400 with 8 percent trucks, and is estimated to rise to 8,210 ADT by the year 2000. U.S. 18 in the project area has 24-foot pavement with 10-foot stabilized shoulders. The route sufficiency rating for the project area is 26 (critical) while the existing bridge structure carries a sufficiency rating of 55 (tolerable). U.S. 18 is functionally classified Major Arterial and has Class III access control.

The latest available Iowa Department of Public Safety accident information reveals that a total of 13 reportable municipal accidents occurred on U.S. 18 in the project area during 1980. These accidents included six personal injury, seven property damage, and no fatalities.

The average statewide accident rate for municipal primary highways for 1979 is 817 accidents per 100 million vehicle miles (HMVM) of travel. The average accident rate on U.S. 18 in the project area for 1980 is 507/HMVM.

III. DESCRIPTION OF PROPOSED ACTION

The project begins at the intersection of U.S. 18 and Illinois Avenue in Mason City and extends easterly about 2.8 miles to near the east city limits. The existing 24-foot roadway in the project area will be re-constructed to a four-lane, 53-foot, curbed urban section in the urban segment and widened to a 48-foot section with 10-foot stabilized shoulders in the rural segment. See Plates 1 through 10 for the location of these sections. Improvements include replacement of the existing 100 by 24-foot bridge over the Winnebago River with a 193 by 54-foot prestressed concrete structure on existing horizontal alignment. A sidewalk on each side will be provided as part of new bridge construction. The vertical grade would be raised 8 to 9 feet in order for the new bridge to clear high water. (The additional length of the new bridge is required due to a wider channel width and the additional vertical clearance.) The hydraulic design of this facility will be compatible with recent flood evaluations, based on the 1980 draft Flood Insurance Administration Study in the area. An existing 44 by 30-foot bridge over Ideal Creek, located about 0.8 mile east of the Winnebago River Bridge will be widened to accommodate the widened roadway. Improvements to the intersections of U.S. 18 at College Drive and California Avenue to improve left-turning vehicle movements are also planned as part of this project. A new access entrance from U.S. 18 will also be provided for the Mason City Junior-Senior High School complex.

Access roads would be constructed on the south side of the present roadway to improve access control and safety adjacent to the new facility. Similarly, Birch Drive would be relocated to improve sight distance at the proposed new

bridge. U.S. 18 would be closed during the time of construction, with traffic detoured onto local roads.

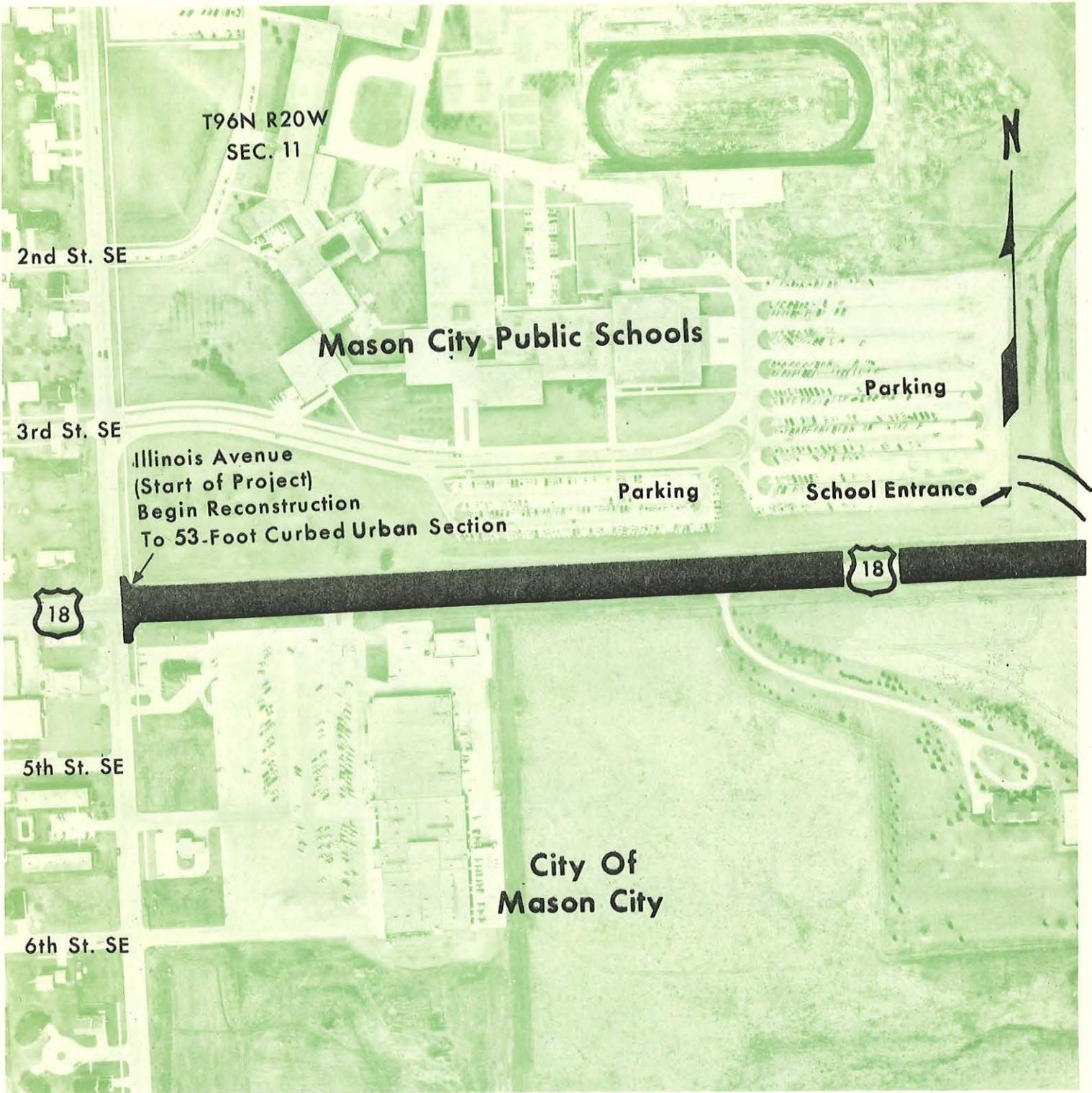
IV. ALTERNATIVES

Because roadway widening and replacing the existing bridge are the objectives of this improvement, only one construction alternative was developed, consisting of replacement of the present structure using the existing highway alignment. Use of this alignment was mandatory to keep project costs at a reasonable level and to avoid excessive right-of-way takings to property adjacent to U.S. 18 where considerable commercial development exists on the south side of the roadway and the Mason City school complex is located on the north side. There is no other feasible and prudent alternative to the reconstruction on existing alignment.

Use of the existing bridge to carry two lanes and adding another new bridge to carry two additional lanes of traffic was considered as an alternative during early planning for this project. This concept was not developed further, however, because the existing bridge does not meet safety and functional width for two lanes of traffic. Moreover, the two-bridge concept would require a median in the bridge approaches to orient traffic prior to the bridge crossing. Introduction of a median is a potential hazard that should be avoided. Also, depending on how the improvement was designed, such a median would require increased right-of-way needs at the city school property on the north side or to the commercial developments on the south side of the roadway, thus imposing even greater project impacts. Finally, a new bridge alongside the existing rainbow arch and at a different elevation would seriously detract from the historic setting visually.

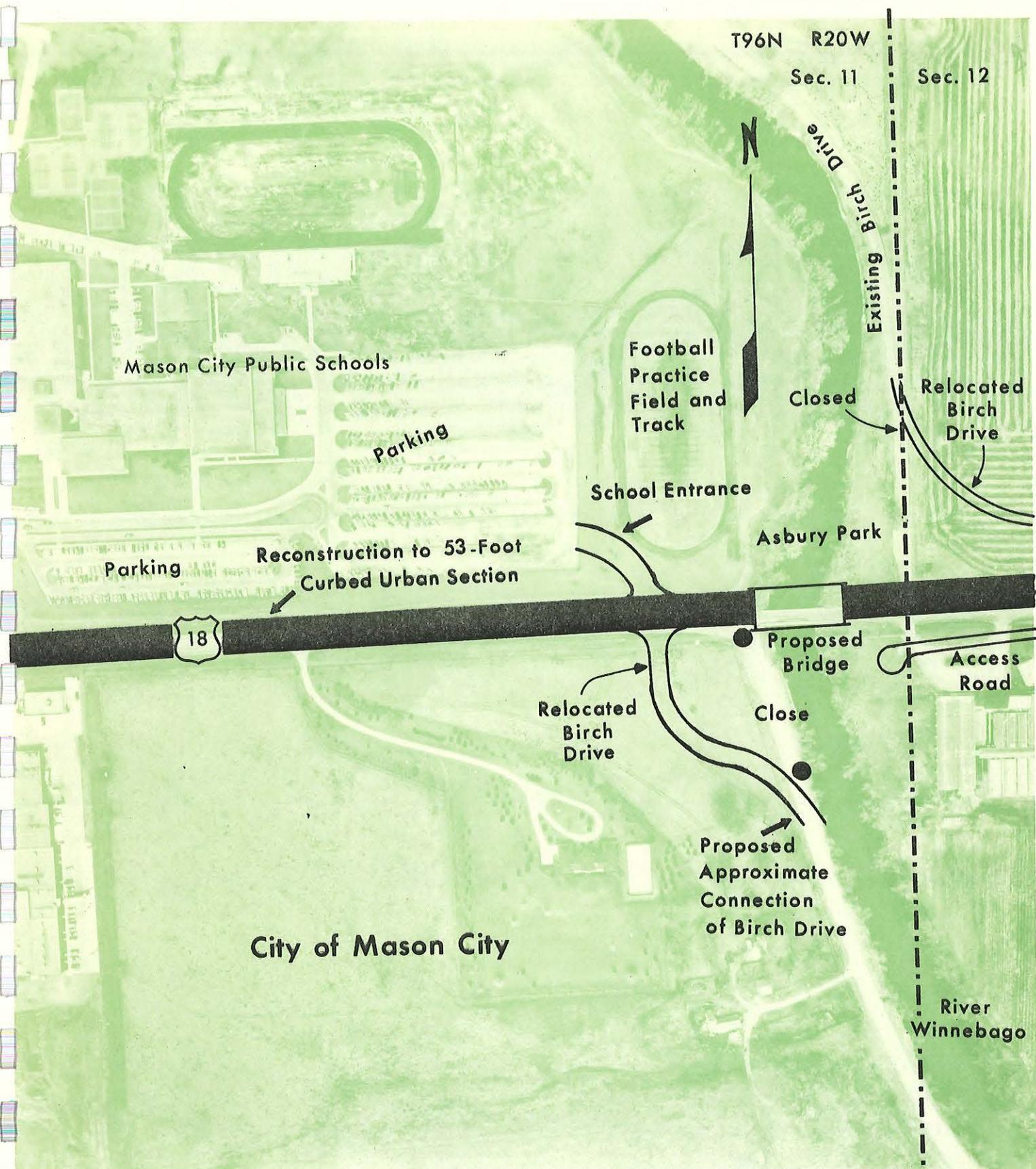
Unlike highways which can be relocated to avoid impacting properties that have special significance, bridges must be either replaced or rehabilitated. The existing bridge represents a 57-year old structure that was designed to meet traffic demands in the 1920's and 30's and is, at present, in the last stages of its designed service life. Additionally, because of the narrow width of the structure, it is considered functionally substandard based on capacity and more advanced concepts in bridge design. Reconstruction to rebuild the bridge to standards adequate for modern vehicle loads and stresses would, however, require substantial reconstruction to the extent that its value as a representative of the rainbow arch type of construction, and therefore its architectural and historic significance, would be completely destroyed.

These limitations preclude the use of any alignment which does not closely coincide with the existing route of U.S. 18. Also, because of the age and unsuitability of the existing Winnebago River bridge to safely continue carrying primary highway traffic volumes, it is deemed both prudent and essential to upgrade this river crossing with a modern structure. Because of the proximity of Asbury Park to the existing bridge and to U.S. 18, there is no alternative that would avoid right-of-way from the park.

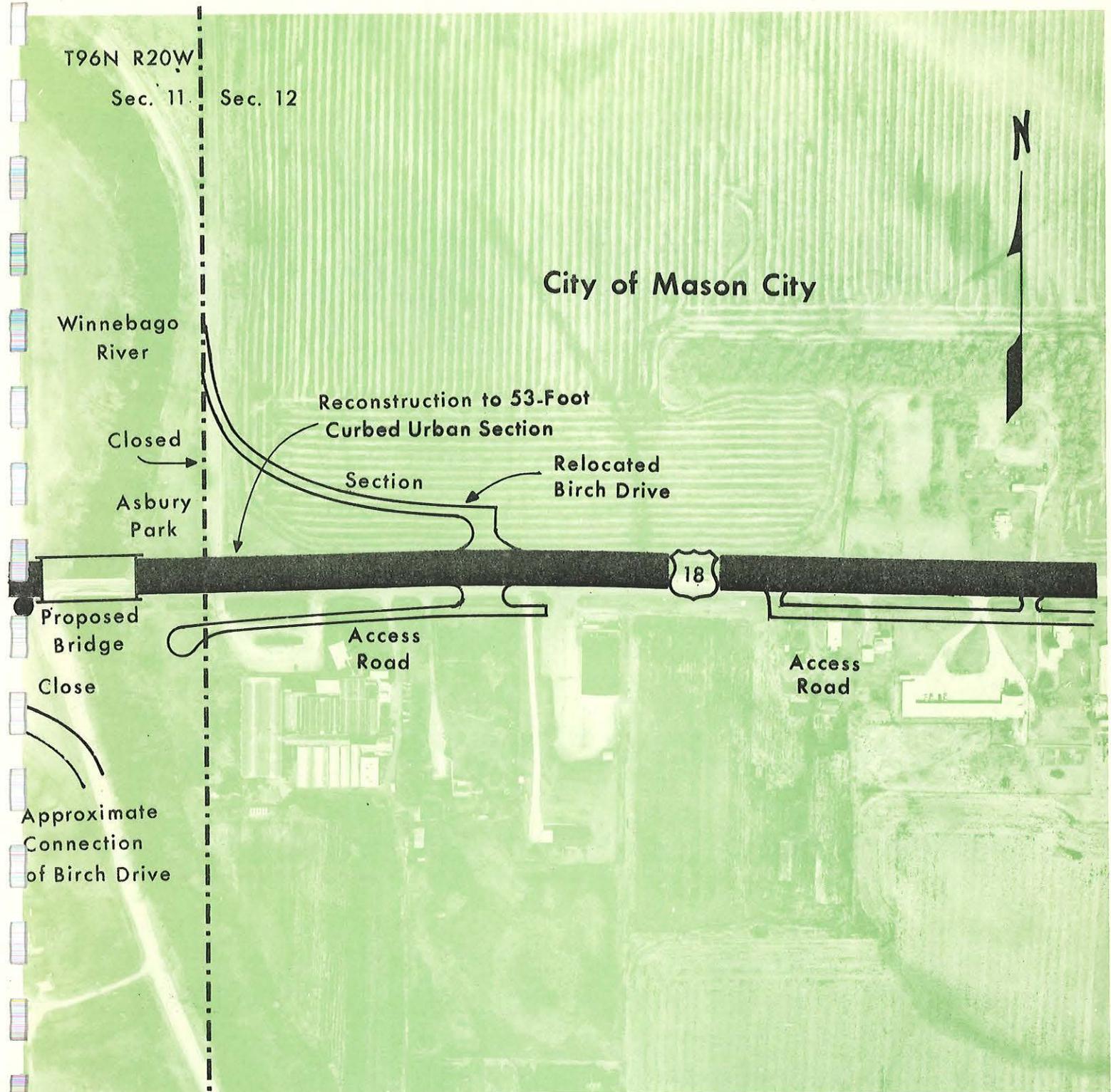


SCALE: 1 INCH = 250 FEET

PLATE 1



SCALE: 1 INCH = 250 FEET PLATE 2



SCALE: 1 INCH = 250 FEET **PLATE 3**

T96N R20W
Sec. 12

City Of Mason City



Farmstead Square

53 -Foot Reconstruction
Begin widening to 53-Foot
Curbed Urban Section

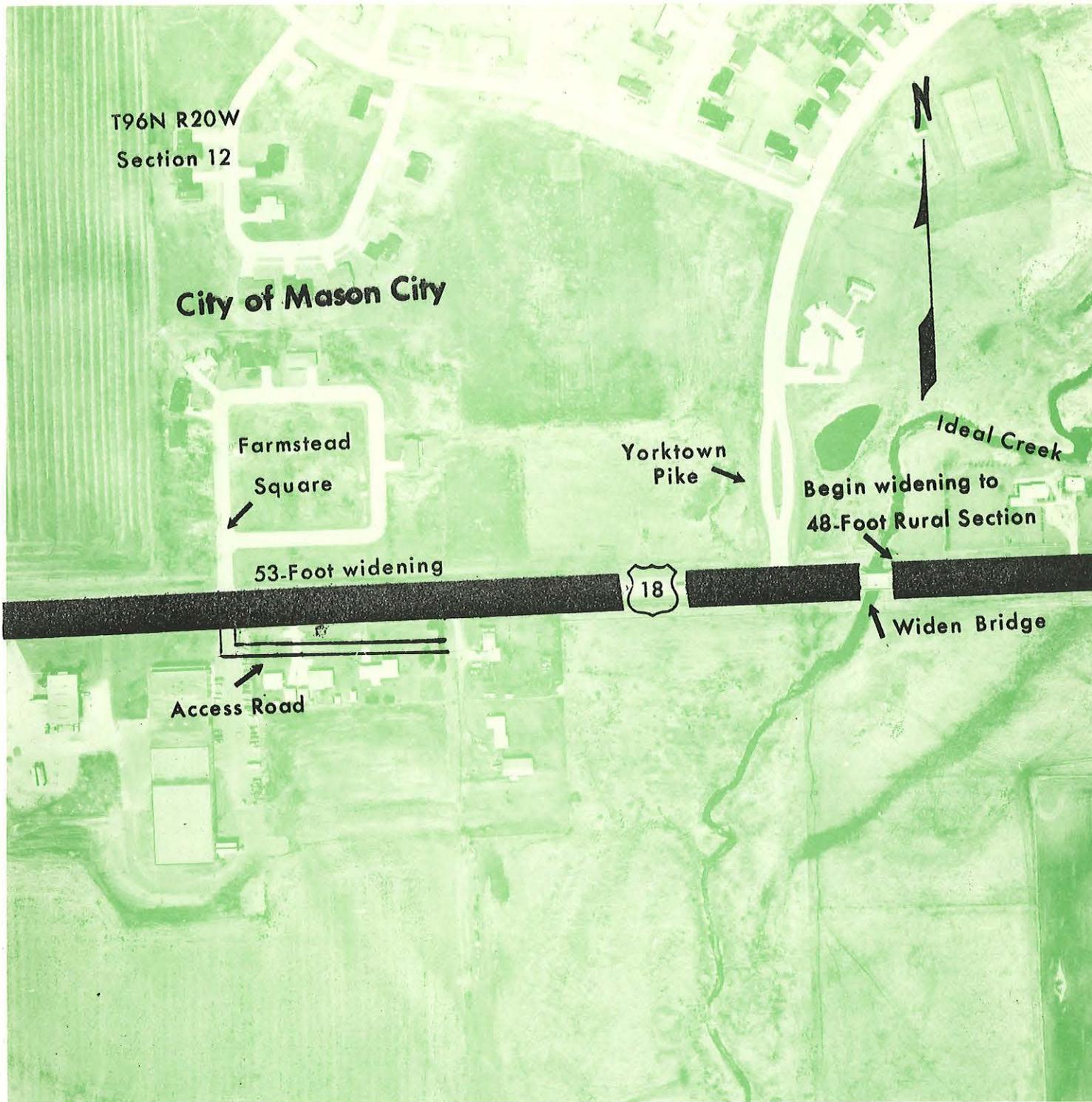


Access Road

Access Road

Access Road

SCALE: 1 INCH = 250 FEET **PLATE 4**



SCALE: 1 INCH = 250 FEET

PLATE 5

T96N R20W
Section 12

T96N R19W
Section 7



Ideal Creek

48-Foot Widening



Widen Bridge

SCALE: 1 INCH = 250 FEET

PLATE 6

T96N R19W
Section 7

City of Mason City

N

College Drive

18

Intersection
Improvement
to provide
left turn Lane

Iowa Ave.

SCALE: 1 INCH = 250 FEET

PLATE 7

T96N R19W
Section 7

City of Mason City

College Drive

48-Foot Widening



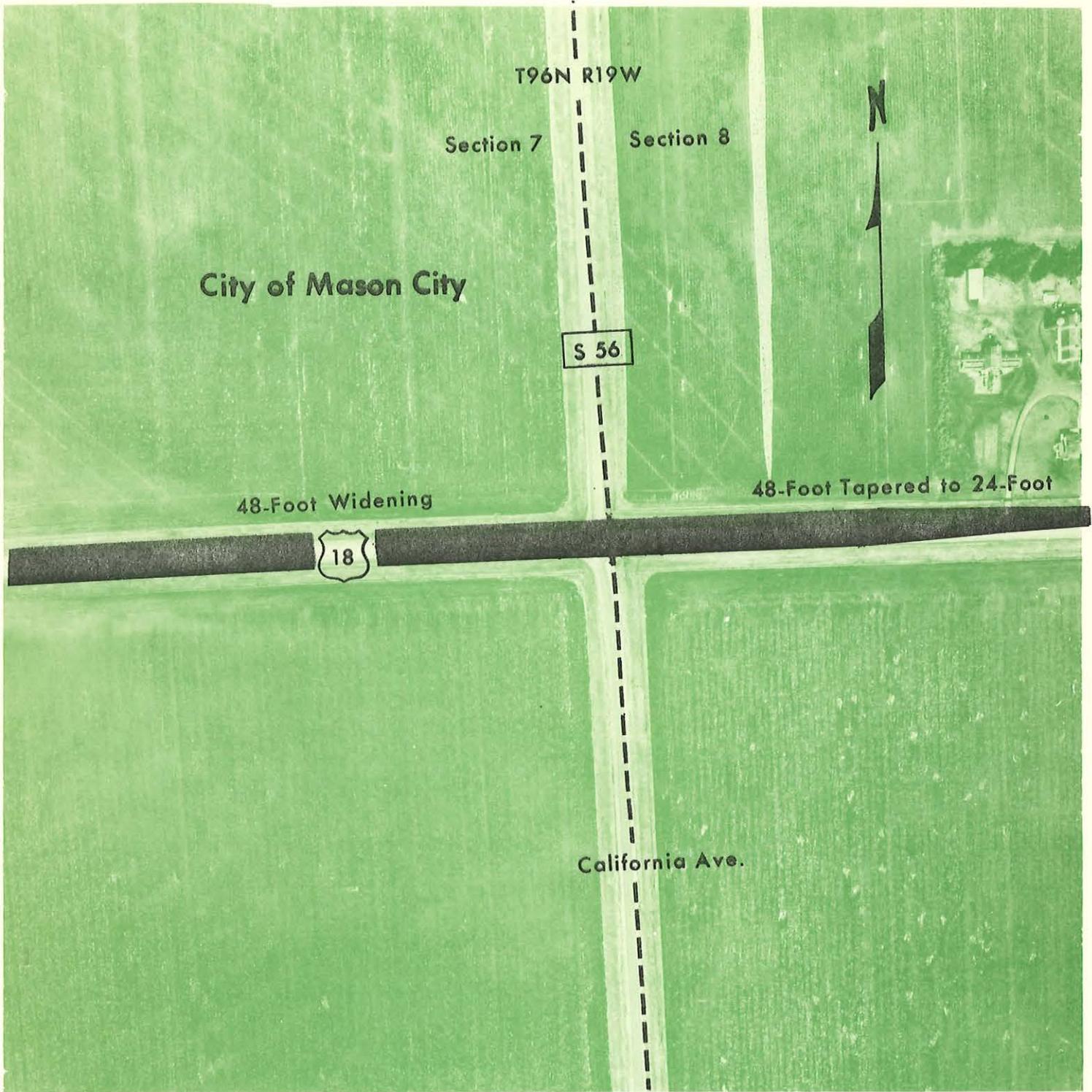
Intersection
Improvement
to provide
left turn Lane

Iowa Ave.



SCALE: 1 INCH = 250 FEET

PLATE 8



SCALE: 1 INCH = 250 FEET **PLATE 9**

T96N R19W

Section 8

City of Mason City

Mason City
Corporate Limits

N

End of Project
(Approximate)

48-Foot Tapered to 24-Foot



SCALE: 1 INCH = 250 FEET

PLATE 10

A. Estimated Project Costs

Construction and right-of-way costs for this U.S. 18 improvement are estimated to be approximately \$2,872,000.

V. PROJECT IMPACTS

A. Socio-Economic Impacts

The primary beneficial impact of the proposed improvement would be the significant increase in operating safety, capacity, and convenience provided by a new bridge and upgraded roadway with improved access and frontage road system.

Mason City is expanding, both in population and area, with development occurring along transportation corridors leading to the city. The city serves as an economic center for its region and this status is predicted to attract increased traffic in the future. Also, numerous industrial and large retail outlets are located in and around Mason City, and these businesses rely on the local transportation systems to provide ready access to their facilities. The North Iowa Area Community College (NIACC) is located north of U.S. 18 along College Drive and is a traffic generator served with this improvement.

Mason City's surface transportation needs are served principally by U.S. 18 which bisects the community in an east-west direction and by U.S. 65 north and south. Also, Interstate 35 access approximately eight miles west of the city has contributed substantially to the prospering economic climate in this region. The city was previously served by the Chicago, Rock Island and Pacific Railroad; however, this company is under court ordered abandonment and liquidation. The Chicago North Western Transportation Company and the Chicago, Milwaukee St. Paul and Pacific Railroad Company maintain active rail service in the area. These rail and highway transportation facilities are positive factors for Mason City, and any improvement to the existing transportation system would be both beneficial and necessary toward maintaining this relationship as traffic demands increase in the future.

1. Relocation Impacts

Based on preliminary design, it appears that two residential displacements would be necessary, with the possibility of a third depending on final design details. All three residences are located on the south side of U.S. 18 east of the Winnebago River in a transitional land use area supporting business, light industrial and some residential land uses. Acquisition would be necessary to provide adequate clearance for planned construction of access roads through the area.

To reduce any potential hardships which might be caused by these displacements, eligible families will receive compensation through acquisition payments and through the Iowa Department of Transportation's comprehensive relocation assistance program. No minority group or particular sector of the Mason City population would be affected by the right-of-way acquisition and displacement accompanying the location and design of this project.

Public service facilities are not anticipated to experience negative effects of a significant level as a result of the proposed improvement. Temporary inconveniences during the construction phase of the project would possibly occur; however, use of a detour would allow emergency services to remain available. Any work involving local utilities will be coordinated with the affected utility companies in order to maintain essential services during the time of project construction.

B. Environmental Impacts

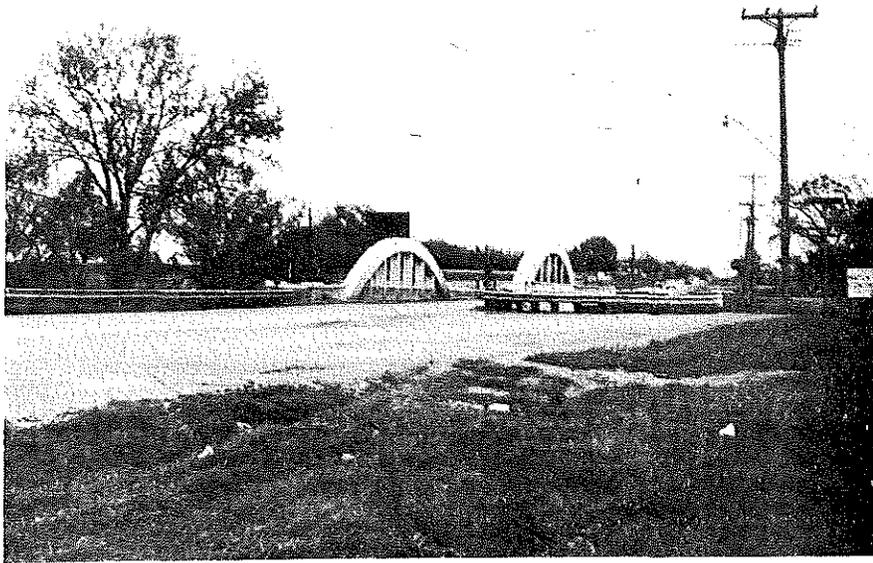
1. Air, Noise and Water Pollution

Projected environmental impacts as a result of the proposed improvement would be minimal because the project follows present alignment. Any adverse effects resulting from construction of the new highway would be short-term and unavoidable in accomplishing the project. There would be a temporary increase in noise and air pollution during construction as a result of the sound levels and exhaust emissions characteristic of heavy equipment. While this would pose a temporary inconvenience to nearby businesses and residences, the improved roadway and new bridge should justify any such temporary disturbance in the area.

Noise and air studies for this proposed project were not completed due to the absence of sensitive land use adjacent to the project corridor. Projected traffic volumes through the corridor were studied and are not expected to result in air pollution concentrations which would approach the national ambient air quality standards. Additionally, these anticipated traffic volumes would result in the 70 dBA L10 contour being confined to the highway right-of-way.

Temporary deterioration of surface water quality in the vicinity of the Winnebago River crossing would result from grading, bridge construction, and other construction activities. Increased turbidity and siltation, caused by erosion of exposed land and disturbance of the stream beds, would be the greatest construction impact on water quality. Runoff from disturbed areas may also increase the levels of metals, pesticides, and nutrients in the streams, depending on the land use and rainfall at the time of construction. Ground water quality should not be appreciably affected by construction operations.

To reduce impacts on water quality, contractors would be required to minimize the area cleared during any time and would employ erosion control measures at all stages of construction. Such measures are required by plans and specifications and include temporary berms, dikes, siltation basins, drains, gravel, mulches and grasses, and would pertain to haul roads and borrow sites as well as the permanent right-of-way. Suitable storage areas and careful handling of potentially harmful materials would be required of the contractor.



East approach of bridge looking west/southwest.



Elevation looking south.

FIGURE 2

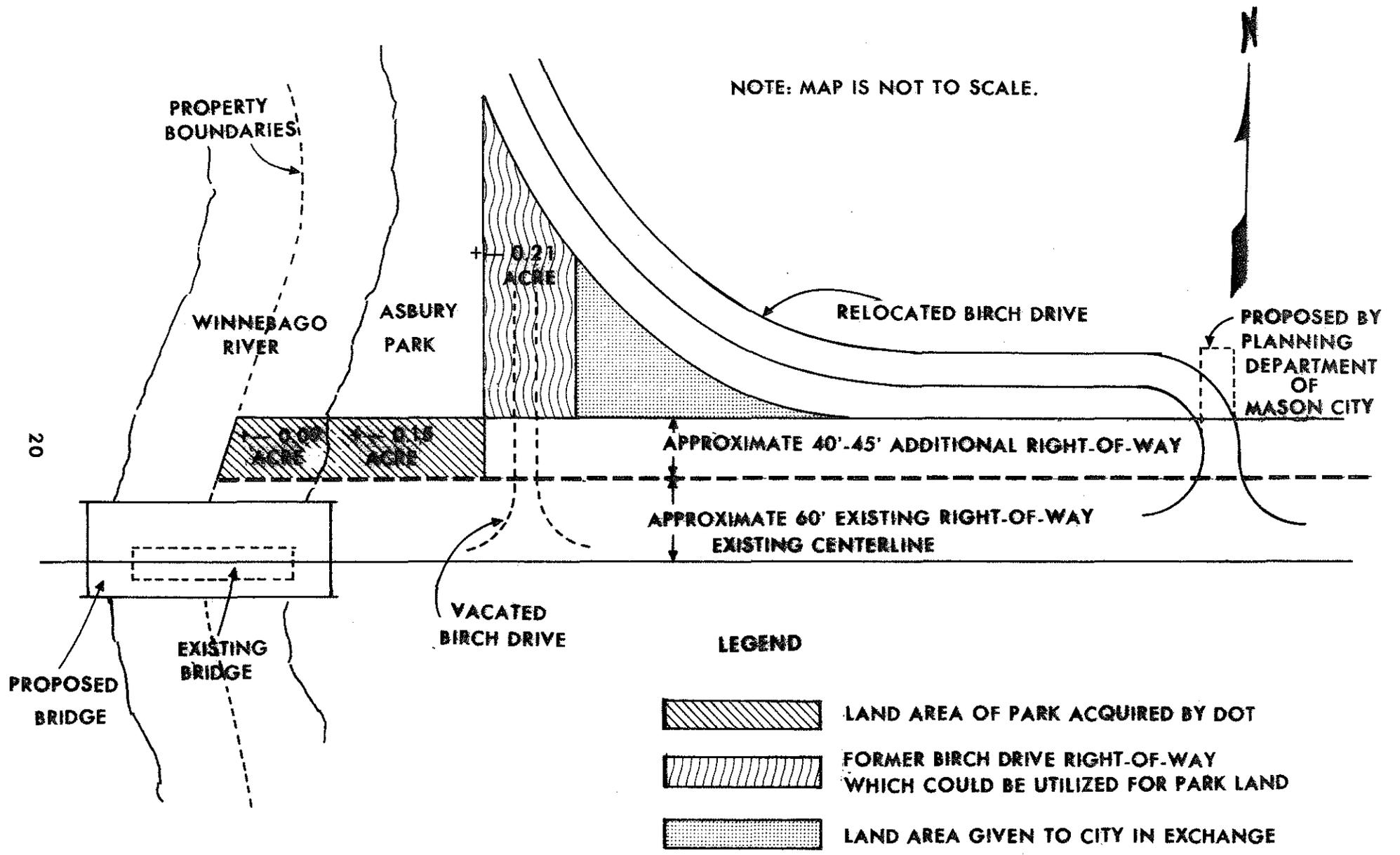


FIGURE 3 PROJECT IMPACTS ON ASBURY PARK

NOTE: MAP IS NOT TO SCALE.

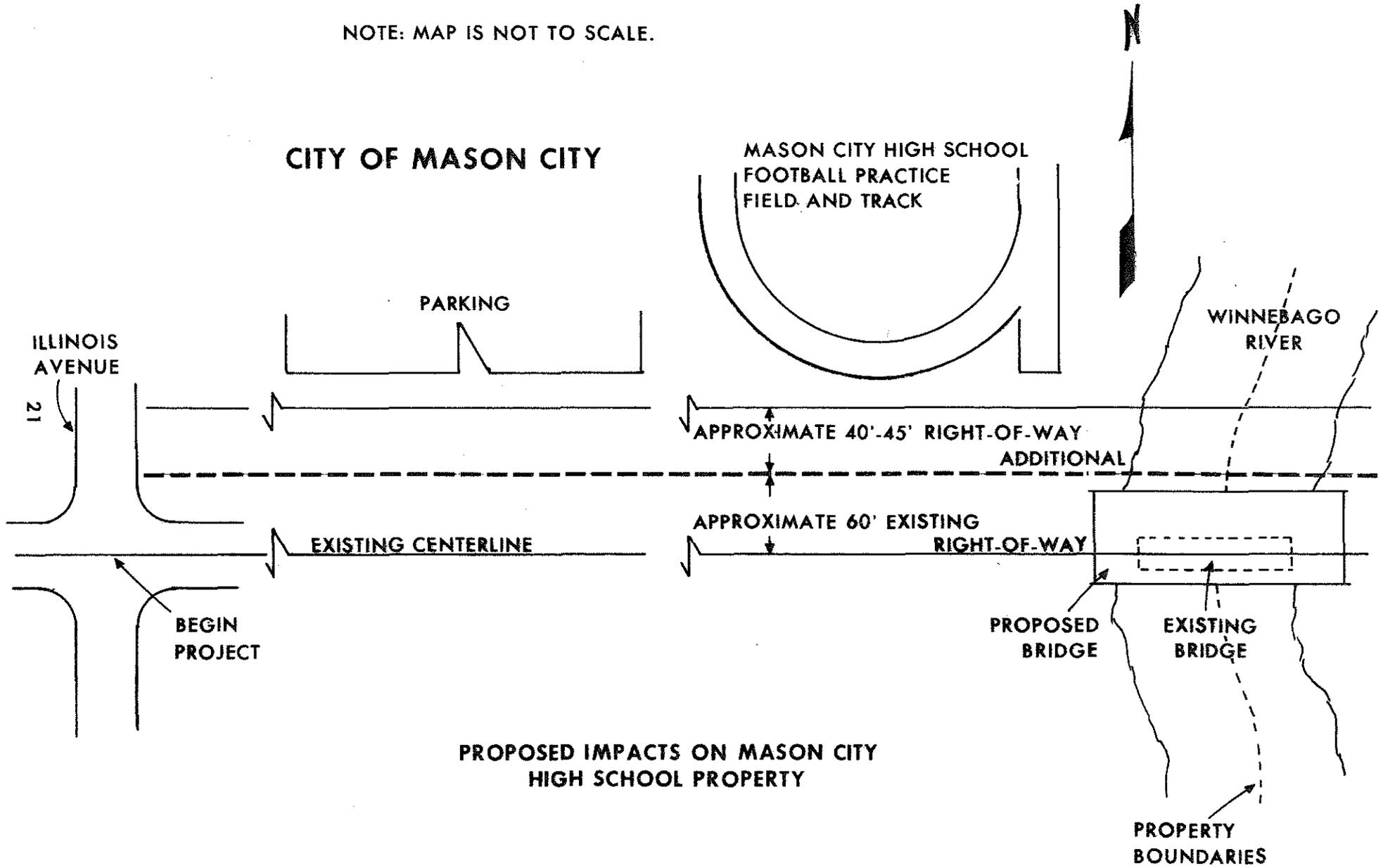


FIGURE 4

Project impacts to aquatic life and river habitat of the Winnebago River are expected to be negligible; short term, minor sedimentation near the bridge will occur during the time of construction, however, this will be minimized by appropriate erosion control measures designed to preserve the existing aquatic resources in the area.

Similarly, project construction will not present a significant threat to area wildlife or wildlife habitat. The project is entirely within the Mason City corporate limits where land use is currently in transition from rural to urban uses. The area is characterized by agricultural use as well as residential, commercial and educational developments. Also, the project area serves as an established transportation corridor, and its continued use for this purpose will conserve existing habitat since only about 20 acres of new right-of-way will be required for this improvement.

2. Parks and Recreational Facilities

In addition to replacement of the Winnebago River bridge, reconstruction also proposed as part of this project would require purchase of additional right-of-way adjacent to the present alignment of U.S. 18. Acquisition of right-of-way on the north side of U.S. 18 would involve two properties which were assessed for impacts and coordinated with officials having local jurisdiction.

These two properties are described as follows:

Asbury Park, located just east of the existing Winnebago River bridge near Birch Drive as shown in Figure 3; and the high school and junior high complex located just west of the river and shown in Figure 4.

Asbury Park:

Asbury Park is listed as a 2.66-acre roadside park in the Mason City Comprehensive Plan and is located in the eastern part of the city adjacent to the Winnebago River and U.S. 18. The principal function of this facility is a roadside park/rest area and picnic tables and grills have been provided for this purpose.

Replacement of the Winnebago River bridge and widening and reconstruction of U.S. 18 would require approximately 40 to 45 additional feet of right-of-way from the north side of the roadway as shown in Figure 3. Approximately .24 acre would be required from park property, of which .15 acre is useable park space and .09 acre is park property as measured to the centerline of the Winnebago River channel.

Because a taking of land from this facility involves conversion of publicly owned recreation property to a transportation use, it is subject to the requirements of Section 4(f) of the Department of Transportation Act, as amended. In this regard, use of the existing alignment

of U.S. 18 is mandatory to keep project costs at a reasonable level and to avoid excessive right-of-way takings to property adjacent to U.S. 18 where considerable commercial development exists on the south side of the roadway. This makes encroachment onto park property unavoidable in order to maintain an economically feasible improvement with minimal impacts to adjacent landowners.

Junior and Senior High School Complex:

The Mason City Senior High School and John Adams Junior High complex is located north of Highway 18 with property extending from the Winnebago River west to Illinois Avenue. That segment proposed for acquisition comprises an approximately 40 to 45-foot strip from the southern boundary as shown in Figure 4. This area is being used predominantly for parking and as an open area. Included in the Comments and Coordination Section is a letter from the Mason City Community School District indicating that the right-of-way acquisition will not significantly affect the quality or utility of the school facilities.

3. Cultural Resources

The only identifiable cultural resource in the project corridor is the rainbow arch bridge over the Winnebago River. This facility has been determined to be eligible for the National Register of Historic Places because of its design and relative scarcity within the state. (See HCRS Eligibility Notification, dated June 29, 1978, in Comments and Coordination Section.) This structure is shown in Figure 2, and consists of a concrete rainbow arch span measuring 100 by 24-feet. It was originally constructed in 1924 (possibly by the Marsh Engineering Company of Des Moines) and was modified in 1954 with a new wearing surface and the addition of a four-foot sidewalk.

C. Mitigation Measures

Winnebago River Bridge:

At the time the original cultural study was completed for the Winnebago River bridge, it was thought that only three other examples of this type of construction existed in Iowa. Since that time, however, additional examples of this type have been determined to exist not only in Iowa, but also in Minnesota and Kansas as well. Estimates of the number of such structures range from 15* in Iowa to possibly 70 in Kansas. It is not known exactly how many of these structures remain in Minnesota.

These more recent findings minimize somewhat the significance of the Winnebago River bridge. However, a Memorandum of Agreement has been executed between the Iowa State Historic Preservation Officer, FHWA,

*This figure was determined by a December, 1979, Rainbow Arch Bridge Survey of all 99 counties in Iowa as well as 69 Iowa cities and urban areas of over 5,000 population.

and the Advisory Council on Historic Preservation which stipulates steps to be taken to mitigate project impacts on the bridge. A copy of the document is attached in the Comments and Coordination Section, pages 42 and 43.

Asbury Park:

As shown in Figure 3, about .15 useable acre would be required from the south boundary of Asbury Park to accommodate the proposed improvement to U.S. 18. To mitigate this impact, the adjacent .21 acre of land, presently owned by Mason City and used for Birch Drive, would be available for conversion to park use. Additionally, a segment of land east of the park and adjacent to existing Birch Drive (shown in Figure 3) will be made available by the Iowa DOT for city conversion to park use. Transfer of this approximately .35 acre parcel as replacement land has been discussed with Mason City officials and found to be adequate mitigation for project impacts to Asbury Park. See pages 47, 48, 49, and 50 in Comments and Coordination Section. Obliteration of the abandoned section of Birch Drive will be coordinated with the City of Mason City.

VI. COMMENTS AND COORDINATION

Numerous meetings and correspondence have been generated as a result of this project. Copies of correspondence and other documents associated with the project and its potential impacts are included in this section.

Copies of the environmental assessment and draft 4(f) determination were forwarded to the following agencies for review and comment on January 21, 1982:

FHWA Regional Office
National Advisory Council on Historic Preservation
State Historic Preservation Officer
National Trust for Historic Preservation
U.S. Environmental Protection Agency
U.S. Department of Interior, Office of Environmental Project Review

Notices of the availability of this document were forwarded to the following agencies on January 6, 1982:

North Iowa Area Council of Governments
Iowa Office for Planning and Programming

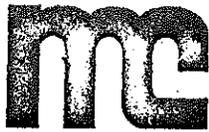
A thirty-day review period was established for the environmental assessment portion of this document and a corridor-design public hearing was held on January 21, 1982. A sixty-day review period was established for the draft 4(f) statement. Comments from reviewing agencies and early coordination comments are attached in the back of this document.

VII. SUMMARY-SECTION 4(f) DETERMINATION

The planning and coordination indicates that the proposed project will have no significant adverse impact and that the social, economic and environmental effects pose no problems to the area. Removal of the Winnebago River bridge and encroachment into Asbury Park do not represent significant impacts on the project area's cultural, historical or environmental resources. Conversion of land from Asbury Park will be offset by the availability of replacement land adjacent to the existing facility which, when incorporated into the park, will result in a slightly larger total land area. As outlined previously in the Need for the Project Section, the replacement of the Winnebago River bridge is necessary for the safety of the traveling public and to help maintain safe and efficient traffic patterns in the project area. As established in this document, there are no reasonable and prudent alternatives to replacing the existing bridge and encroaching into Asbury Park.

Based upon the above considerations, it is determined that there are no feasible and prudent alternatives to the replacement of the existing Winnebago River bridge and use of land from Asbury Park, and that the proposed action includes all possible planning to minimize harm to Section 4(f) property resulting from such use.

Approved Kenneth W. Buehler Date 6-10-82
for Regional Director
Office of Environmental Programs
Federal Highway Administration



city of mason city

planning department
19 south delaware
mason city, iowa 50401
phone 515 423-2614 3091

October 15, 1981

Mr. Harry S. Budd
Project Planning Engineer
Department of Transportation
800 Lincoln Way
Ames, IA 50010

Re: Cerro Gordo County
BRF-F-18-5(28)--2P-17

Dear Mr. Budd:

The plan of the proposed U.S. 18 improvement in Cerro Gordo County on the east side of the City of Mason City has been reviewed and discussed by various representatives of the City and Mr. Hector Hogue of your staff. The plan indicates that a portion of Asbury Park land approximately 60 feet deep from the present boundary at the south end of the park will be required for the project.

Asbury Park is not considered to have great local significance because of its existing limited size and would not sustain major planned development in the future. It is our position that the proposed acquisition of a small portion of the park for right-of-way purposes will not significantly affect the quality or utility of the park facility as a part of Mason City's outdoor recreation and open spaces system. The availability of the replacement land adjoining the present park as a result of the relocation of Birch Drive can enhance the accessibility and utility of the park for future use.

The City, therefore, has no objection to the planned acquisition of approximately 6500 square feet of land area from Asbury Park for the improvement of U.S. 18. The City Council has, in concurrence with the recommendation of the Park Board, approved the conveyance of this portion of parkland for highway right-of-way purposes. We await notification from you regarding the appropriate timing of such conveyance.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ronald L. Fiscus'. The signature is written in a cursive style with a large, prominent 'R' and 'F'.

Ronald L. Fiscus
Assistant Director
RF/gl

RESOLUTION NO. 8692

A RESOLUTION APPROVING AND AUTHORIZING CONVEYANCE OF A PORTION OF PARK LAND LOCATED IN ASBURY PARK NO LONGER NEEDED FOR PARK PURPOSES, AND AUTHORIZING ISSUANCE OF A QUIT CLAIM DEED TO IOWA DEPARTMENT OF TRANSPORTATION AT TIME OF RECONSTRUCTION OF TAYLOR BRIDGE LOCATED ON U. S. HIGHWAY 18 IN THE CITY OF MASON CITY, IOWA

WHEREAS, the Park Commission has adopted a ~~resolution~~ ^{RESOLVED FOR FILE} approving the conveyance of a portion of park land located in Asbury Park within the municipality for the purposes of providing the Iowa Department of Transportation with right-of-way access for the reconstruction of a bridge located on U. S. Highway 18 and submitted that same resolution to the City Council, and

WHEREAS, the City Council did on the 17th day of August, 1981, hold a public hearing on the conveyance of said park land, as per published notice in the Globe-Gazette, so as to hear comments for or against said conveyance, and

WHEREAS, the City Council does wish to convey said portion of park land to the Iowa Department of Transportation for said right-of-way purposes;

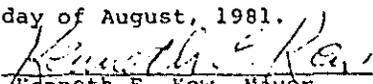
NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Mason City, Iowa:

Section 1: That the conveyance of a portion of park land located within Asbury Park to the Iowa Department of Transportation should be and the same is hereby approved, said portion legally described as follows:

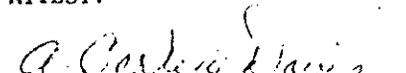
Commencing at the Southeast corner of the Northeast Quarter (NE $\frac{1}{4}$) of Section 11, Township 96 North, Range 20 West of the Fifth P.M., Cerro Gordo County, Iowa, running thence North along the section line a distance of 626 feet, thence South 84° 9' 30" West 147 feet to the centerline of Lime Creek (aka Winnebago River), thence Southwesterly along said centerline of Lime to the South line of the Northeast Quarter NE $\frac{1}{4}$) of said Section 11-96-20, aforesaid, thence East 281.5 feet to the place of beginning, subject to an easement to the State of Iowa, dated January 26, 1953, which easement has been filed of record in the office of the County Recorder of Cerro Gordo County, Iowa, on January 27, 1953, in Book 109, Page 545, and subject to roadways existing on said premises.

Section 2: That the City Clerk should be and is hereby authorized and directed to deliver a Quit Claim Deed at such time it is requested by the Iowa Department of Transportation and at such time vacation of said premises will take place.

PASSED AND APPROVED this 17th day of August, 1981.


Kenneth E. Kow, Mayor

ATTEST:


A. Carlene Davis, City Clerk

Mason City Community School District

DIRECTORS

Mrs. Shirley Dean
Susan D. Fisher
Milford Grotnes
William D. Killpack
Socrates G. Pappajohn
D. Kendall Petersen
James A. Wright

ADMINISTRATION BUILDING
1515 SOUTH PENNSYLVANIA

MASON CITY, IOWA 50401

Telephone: (515) 421-6200

November 24, 1981

OFFICERS

Milford Grotnes, Pres.
Roger A. Clough, Ed.D., Supt.
Thomas A. Berge, Secretary
B. Z. Miller, Treasurer

Mr. Harry S. Budd,
Project Planning Engineer,
Department of Transportation,
Ames, Iowa

Dear Mr. Budd:

The plan of the proposed U.S. 18 improvement in Cerro Gordo County on the east side of the City of Mason City has been reviewed and discussed with Mr. Thomas Welch of your staff. The plan indicates that a portion of the high school property along the south property line will be required for the project.

It is our position that the proposed acquisition of this portion of the school property for right-of-way purposes will not significantly affect the quality or utility of the school facilities. In addition, the project as proposed will not require land be removed from recreational areas of the site. The Mason City Community School District, therefore, has no objection to the planned acquisition of approximately 1.3 acres of land from the high school site for the improvement of U.S. 18.

Concurrence on the part of the board does not materially or substantially affect the district's rights in regard to future action on the project.

Sincerely,



Warren V. Krafka,
Assistant Superintendent of Schools

bal

Rainbow Arch Bridge

U.S. Highway 18, over the Winnebago River, near the east corporate limits of Mason City, Iowa

Description

The bridge is classified as a reinforced concrete arch. It measures 100' by 24', with a four-foot walkway added to the south side.

Statement of Significance

The bridge was constructed in 1924 (the walkway mentioned above was added in 1954). The designer of the bridge is unknown, but is believed to have been Marsh of Des Moines. The concrete arch ("rainbow arch") type of bridge is a rarity in Iowa. Only four examples of the type are presently known to exist in the State, the other three being located in Marshalltown (South Third Avenue, over Linn Creek), in Rockwell City (just south of U.S. highway 20) and in Shady Oak (just north of U.S. highway 30 on old U.S. 30). This type of bridge was at one time, according to members of the staff of the Iowa Department of Transportation, known as the "Marsh arch." Although no research has yet been undertaken to verify this, Mr. Marsh apparently promoted his arch design in the 1920's as being more economical than other bridge types for short spans and built similar bridges in Illinois and other midwestern states, as well as in Iowa. According to information available at the Historic American Engineering Record, while several other bridges of this type exist in other states, the Mason City and Marshalltown bridges are among the earliest and largest known examples. The significance of the bridge is perhaps best expressed in the following excerpt from the comments of Douglas Griffin of HAER: "They (the rainbow arch bridges) represent an important structural form within the historical development of reinforced concrete technology and provide evidence of Iowa's long and diverse civil engineering heritage. In addition, the rainbow arch is a visually pleasing structural form which adds to the distinctiveness of the Iowa landscape."

Bibliography

1. Cultural Resource Survey prepared for the Iowa Dept. of Transportation, December 1977, Primary Roads Series, vol.1, no.33, 1977, RF-18-5, Reconstruction and Bridge Replacement, Cerro Gordo County.
2. Letter from Douglas Griffin, HAER, to David Drake, DOT, Ames, IA, 10 March 1978.

Information compiled by S.J.Klingensmith, Division of Historic Preservation, Iowa City, May 1978.

Douglas Griffin

-2-

February 1, 1978

The other two bridges of this type which remain in Iowa are located just south of U.S. 20 in Rockwell City and on Old U.S. 30 approximately three miles east of Marshalltown. Also, according to members of the Iowa DOT staff, this bridge type is known as the "Marsh arch," being named after its designer and promoter. Apparently Mr. Marsh covered Iowa, Illinois and perhaps several other states. He promoted his arch design as being more economical than other bridge types being built during the 1920's.

Whatever information you are able to discover regarding the history and significance of the rainbow arch bridge will be greatly appreciated. Thank you in advance for helping us with this matter.

Very truly yours,

DBD

David B. Drake
Environmental Coordinator

DBD/MAL/jah
Enclosures

cc: Ian MacGillivray
Director, Planning & Research
Iowa DOT

George Calvert
Deputy Director-Development
Iowa DOT

Robert L. Humphrey
Project Planning Engineer
Iowa DOT

Adrian Anderson
State Historic Preservation Officer

Y
P
O
C

DIVISION OF HISTORIC PRESERVATION
IOWA STATE HISTORICAL DEPARTMENT

ADRIAN D. ANDERSON, DIRECTOR
STATE HISTORIC PRESERVATION OFFICER

January 12, 1978

Mr. Robert Humphrey
Department of Transportation
Highway Division
826 Lincoln Way
Ames, Iowa 50010

Re: RF-18-5, a bridge replacement on U.S. 18 in Cerro Gordo County

Dear Mr. Humphrey:

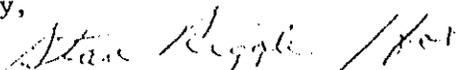
Based on the information provided and the report: RF-18-5 Bridge Replacement and Reconstruction, Cerro Gordo County: by John Hotopp, Michael Fokken, and Michael Lipsman; December, 1977; our review of this project has resulted in the following recommendations:

ARCHAEOLOGY: We recommend that the project proceed contingent on agreement that borrow areas will be reconnoitered during initial clearing and grubbing, in order to determine if presently unknown archaeological sites are present.

HISTORY and ARCHITECTURE: Concerning the concrete rainbow arch bridge, which has been identified as a rarity in Iowa, we recommend that your agency obtain an assessment of its historical engineering significance from Historic American Engineering Record (HAER), an office of the National Park Service that possesses proper expertise about such matters. If the structure will be affected by the project, we recommend that our Division be provided with the original plans of the bridge.

In addition to the above recommendations, if construction work uncovers an item or items that may be of historic or archaeological interest or if important new historical data comes to light in the project area, the work should be delayed sufficient time to notify our office and to allow the significance of the discovery to be determined.

Sincerely,



Adrian D. Anderson, Director
State Historic Preservation Officer

cc: Thomas Wallace, OPP
John Hotopp, OSA



niacog

**north iowa area
council of governments**
202 1st street s.e., mason city, iowa 50401
515-423-0491

September 14, 1977

RE: Department of Transportation
#II-78-22

The North Iowa Area Council of Governments received on July 12, 1977 an application from the Iowa Department of Transportation, Division of Highways to the Federal Highway Administration, Department of Transportation for bridge repairs in Cerro Gordo County. This application was submitted to the North Iowa Area Council of Governments for review in accordance with O.M.B. Circular A-95.

The North Iowa Area Council of Governments formally reviewed the submitted application on September 12, 1977. The areawide review revealed that the proposals included in this application in no way duplicate or conflict with any plans, programs, or projects of other political subdivisions within Region II or with any regional planning programs completed or underway. The review also found no duplication with any other federally or state assisted project. The review recorded no negative or adverse comments.

The Areawide Clearinghouse completes its review of this application and recommends the approval of the project.

Sincerely,

Tom Simmering
Executive Director

cc: A. Thomas Wallace
Office for Planning and Programming

Project Planning

January 21, 1980

Robert L. Humphrey/
Dave Drake
Lowell L. Richardson

602
SISA

Secondary Roads

Rainbow Arch Bridge Survey

On December 18, 1979, a short Rainbow Arch Bridge survey was sent to the 99 County Engineers and to 69 cities over 5,000 population or in urbanized areas. Towns under 5,000 population were reviewed by the County Engineer. 77 county and 42 city responses were received. We are assuming that most if not all of those who didn't respond do not have any rainbow arches.

We asked for verification or additions to a computer printout from the SISA files. The attached list shows the location of 15 rainbow arches and a list of other bridges that might have historical significance. We feel this is a good listing of the rainbow arches in Iowa while the other bridges listed are just those we received back from the survey. If you need additional information, please give us a call.

Lowell E. Richardson
Secondary Roads Engineer

by _____
Stan Johnson
Urban Systems Projects Tech.

LER: SJ:zka
Attach.

cc: Cay Rauffman w/copy
Harold C. Schiel w/copy

RAINBOW ARCHES

1980

	<u>County</u>	<u>Structure Number</u>	<u>Location</u>	<u>Year Built</u>	<u>Designer Name</u>	<u>Plans to Replace</u>	<u>Remarks</u>
	1 Boone	76900	82-25-15	Unknown	Unknown	No	--
	2 Boone	76930	82-25-27	"	"	"	--
	3 Boone	77240	82-28-15	"	"	"	--
	4 Boone	77250	82-28-15	"	"	"	--
	5 Boone	78080	84-28-32	"	"	"	--
	6 Boone	78170	85-25-16	"	"	"	--
	7 Boone	361130	85-24-04	Unknown	Unknown	No	--
	8 Calhoun	90830	86-34-25	1914	Marsh	No	Also Sec. 29 & 32, T88N, R32W
41	9 Cerro Gordo	18830	In Mason City on U.S. 18 over Winnebago Riv.	1924	Marsh	No	Only one on Primary System
	10 Dallas	132400	81-27-07	1916	Unknown	No	No plans available
	11 Jasper	8640	In Newton on W.8th over CRI RR	1927	Marsh	1980	Bridge closed to traffic
	12 Kossuth	217370	99-30-31	Unknown	Marsh	No	No plans available
	13 Lyon	231160	99-30-31	Unknown	Marsh	No	No plans available
	14 Marshall	242350	83-17-08	1918	Unknown	No	--
	15 Marshall	7900	In Marshalltown on S.3rd over Linn Creek	Unknown	Marsh	1984	IDOT to replace
	16 --						
	17 --						
	18 --						
	19 --						
	20 --						

(Above table re-typed for publication.)

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

MEMORANDUM OF AGREEMENT

WHEREAS, the Federal Highway Administration (FHWA), Department of Transportation, proposes to fund the improvement of U.S. 18 in Mason City, Iowa; and,

WHEREAS, pursuant to the regulations of the Advisory Council on Historic Preservation (Council), "Protection of Historic and Cultural Properties" (36 CFR Part 800), FHWA in consultation with the Iowa State Historic Preservation Officer (SHPO) has determined that this undertaking will have an adverse effect on the Rainbow Arch Bridge, a property eligible for the National Register of Historic Places; and,-

WHEREAS, pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. Sec. 470(f)) and the Council's regulations FHWA has requested the comments of the Council; and,

WHEREAS, representatives of the Council, FHWA and the Iowa SHPO have consulted and reviewed the undertaking to consider alternatives to avoid or satisfactory mitigate the adverse effects;

NOW, THEREFORE, it is mutually agreed that it is in the public interest to accept the adverse effects of the undertaking and proceed with the undertaking in accordance with the following stipulations to minimize the adverse effects.

Stipulations

FHWA will insure that the following measures are carried out.

1. The Rainbow Arch Bridge over the Winnebago River will be recorded prior to demolition so that there will be a permanent record of its history and appearance. The National Architectural and Engineering Record (NAER) (National Park Service, Department of the Interior, Washington D.C. 20243; 202-272-3527) will first be contacted to determine what documentation is required. All documentation must be accepted and the Council in receipt of a copy of its acceptance, prior to the demolition. Copies of this documentation will be provided to the Iowa SHPO, along with any existing original documents for curation.
2. Prior to the demolition of the Rainbow Arch Bridge, the Iowa SHPO will be given a reasonable opportunity to select architectural elements such as plaques or ornamental items for curation or use in other projects. These items will be carefully removed and their commemorative use determined in consultation with the Iowa SHPO.

Page 2
Memorandum of Agreement
Federal Highway Administration
Rainbow Arch Bridge

3. Within 90 days of the demolition of the Rainbow Arch Bridge, the Keeper of the National Register will be notified so that the bridge may be removed from the list of properties eligible for the National Register of Historic Places.

Robert Dancy Feb 11, 1982
Executive Director
Advisory Council on Historic Preservation

Samuel Cook 2/18/82
(date)
Iowa Division Administrator
Federal Highway Administration

Alvin H. Anderson (date) 2/18/82
Iowa State Historic Preservation Officer

Alvin H. Anderson (date) 2/26/82
Chairman
Advisory Council on Historic Preservation



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
324 EAST ELEVENTH STREET
KANSAS CITY, MISSOURI - 64106

March 1, 1982

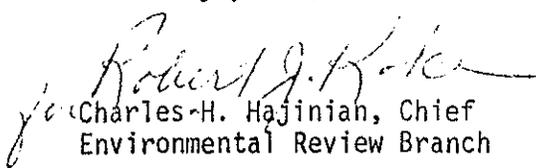
Mr. Hubert A. Willard
Division Administrator
Federal Highway Administration
P.O. Box 627
Ames, Iowa 50010

Dear Mr. Willard:

U.S. 18 Bridge Site Over The Winnebago River,
Cerro Gordo County, Iowa - Project No. F-18-5

We have reviewed the Environmental Assessment/Draft Section 4(f) Statement for the project identified above. Our Agency has no significant objections to the project as proposed and finds the document adequate. Thank you for the opportunity to review this document.

Sincerely yours,


Charles H. Hajinian, Chief
Environmental Review Branch



United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

In Reply Refer To:
ER 82/142

MAR 16 1982

Mr. Hubert A. Willard
Division Administrator
Federal Highway Administration
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Willard:

This is in response to the request for the Department of the Interior's comments on the Environmental Assessment/Preliminary Section 4(f) Statement for the U.S. 18 Bridge over the Winnebago River, Cerro Gordo County, Iowa (Project No. F-18-5).

SECTION 4(f) STATEMENT COMMENTS

We concur that there is no feasible and prudent alternative to the use of land from Ashbury Park for the proposed project. However, we disagree with the determination (p. 22) that Section 4(f) of the Department of Transportation Act does not apply to the taking of land from the park which is recognized in the Mason City Comprehensive Plan (p. 12). Picnic tables and grills have been placed in the park and are being used for roadside picnicking. We also understand that the park is being used by children from neighboring residential areas and that the significance of the park as a neighborhood play area can be expected to increase as further residential development occurs in the vicinity. As to measures to minimize harm, we believe the replacement land shown on Figure 3 (p. 20) will satisfy the requirements of the second proviso of Section 4(f). We recommend that the final Section 4(f) statement include a firm commitment to transfer the parcel to the City for park purposes and to prepare the surface of the parcel so that it will be a useful addition to Ashbury Park. Planning for such surface preparation should be developed in cooperation with the Mason City Park Commission, and evidence to that effect should be included in the final statement.

We also concur that there is no feasible and prudent alternative to the taking of the historically significant arch bridge over the Winnebago River. We believe the proposed measures to minimize harm (p. 27) constitute satisfactory compliance for the taking of the rainbow bridge. The bridge should be documented before demolition to the satisfaction of the Historic American Engineering Record (HAER), and evidence to that effect should be included in the final Section 4(f) statement.

Project impacts and mitigation to Ashbury Park have been included in the 4(f) determination.

Based on information supplied by Mason City, the principal use of this park is as a roadside rest area. Subdivision open space is provided for recreational uses for residents of surrounding residential areas (see letter from Mason City to Harry S. Budd, pages 47 and 48).

A letter to this effect has been forwarded to the city. A copy is included as pages 49 and 50.

See Ratified Memorandum of Agreement, pages 42 and 48.

Mr. Hubert A. Willard

2

ENVIRONMENTAL ASSESSMENT COMMENTS

The impacts of the project on the fish and wildlife resources should be addressed. For example, the quantity (although small) and type of habitat (woodland, pasture, etc.) affected by highway widening and bridge construction should be discussed in the final environmental assessment.

FISH AND WILDLIFE COORDINATION ACT COMMENTS

The project may require a Section 404 permit from the Corps of Engineers. If a Section 404 permit is necessary, the Fish and Wildlife Service (FWS), pursuant to the Fish and Wildlife Coordination Act, will provide a separate evaluation based on information provided during the permit review process. FWS advises that its tentative position, based on available information, is that it would not object to permit issuance but may recommend stipulations to mitigate impacts to fish and wildlife habitat and resources.

Should adequate design-level plans be available, the FWS will be pleased to coordinate now with you, the Iowa Department of Transportation, the Corps of Engineers, the Iowa State Conservation Commission, and other concerned agencies to preclude delay and to ensure that any permit stipulations or conditions are understood and included in the final environmental assessment.

SUMMARY COMMENTS

Contingent upon a firm commitment to provide the replacement land at Ashbury Park in a condition satisfactory to the Mason City Park Commission, and documentation of the bridge before demolition to the satisfaction of the Historic American Engineering Record, the Department of the Interior would have no objection to Section 4(f) approval of the proposed project.

As this Department has a continuing interest in the project, we would be willing to provide further technical assistance. The field office assigned responsibility for cultural and recreation resources is: Regional Director, National Park Service, Rocky Mountain Region, P.O. Box 25487, Denver Federal Center, Denver, Colorado 80255 (Phone: FTS 8-234-6460 or Commercial 303-234-6460). For follow-up action with the Fish and Wildlife Service regarding any Corps of Engineers permit, please contact the Area Manager, Fish and Wildlife Service, Suite 106, Rockcreek Office Building, 2701 Rockcreek Parkway, North Kansas City, Missouri 64116 (Phone: FTS 758-5951 or Commercial 816-374-5951).

Mr. Hubert A. Willard

3

We appreciate the opportunity to provide these comments.

Sincerely,

(sgd) Bruce Blanchard

Bruce Blanchard, Director
Environmental Project Review

cc: Mr. Harry S. Budd
Project Planning Engineer
Iowa Department of Transportation
808 Lincoln Way
Ames, Iowa 50010

This information has been included in the revised document.

An appropriate Section 404 permit will be requested from the Corps of Engineers during the design phase of project development. At this time it is not anticipated that bridge construction or fill material will have any impacts on aquatic life in the Winnebago River other than during the time of construction.

mc|eddd city of mason city
community development department

office
109 1st s.e.
mason city, iowa 50401
515/423-2614 3291

March 31, 1982

Mr. Harry S. Budd
Project Planning Engineer
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Budd:

Hector Hogue of your office, has provided me with a copy of the U.S. Department of Interior letter dated March 16, 1982, in reference to the Section 4(f) Statement Comments on the U.S. Highway 18 Widening Project here in Mason City (Project F-18-5). We have discussed the various issues raised in that letter and I wish to provide this response as background data which you may wish to use in the preparation of the final 4(f) Statement.

The proposed project will affect Asbury Park, which lies adjacent to the Winnebago River and U.S. Highway 18. That park is recognized in the Mason City Comprehensive Plan and is an integral part of our parks and recreation system. It is accurate that the picnic tables and grills have been placed in the park and that it is being utilized for road-side picnicing. It is incorrect, however, to state that the park has the characteristic of a neighborhood residential recreation space. A large residential area lying just north of the subject area is a new subdivision developed with its own interior open space and recreation areas. Children from that area utilize those spaces provided within that subdivision for recreation, rather than Asbury Park. There are a few residences located south of Highway 18, but each of these are developed on large parcels of ground and it has not been my experience to witness those families utilizing Asbury Park as a neighborhood play area either.

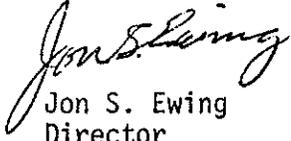
In discussing this matter with the Superintendent of Parks and Recreation for Mason City, it is our combined opinion that the predominant use of the park is as a road-side rest area. A secondary use would be an occasional picnic area for City and County residents. It is our combined feeling that the taking of property from the park will be adequately replaced by provision of residual land from the project. We would be pleased to receive this residual land and

Mr. Harry S. Budd
Page 2
March 31, 1982

it has been our understanding that it would be made available following completion of the project. We would be amenable to receiving any sort of an agreement or commitment from DOT to that effect. Details of surface preparation for the residual land can be developed by contacting Mr. Dan May, the Parks Superintendent here in Mason City.

We take no other exception to the statements made in the Department of Interior's letter and sincerely hope that the project can move forward on schedule. It has been a long-needed and high-priority project for the community and we are anxious to see it completed. If there is anything further we can provide to assist in the project or in the preparation of the Section 4(f) Statement, please let me know.

Sincerely,



Jon S. Ewing
Director

JE/gl

xc Hector M. Hogue
Dan May



Department of Transportation

PLANNING AND RESEARCH DIVISION
800 Lincoln Way Ames, Iowa 50010
515/239-1391

REF. NO. Cerro Gordo County
BRF-18-5(28)--2P-17

April 8, 1982

Mr. Jon S. Ewing, Director
Community Development Department
109 1st SE
Mason City, IA 50401

Dear Mr. Ewing:

I have received your letter of March 31, 1982, concerning the impacts of the U.S. 18 project on Asbury Park. It will be referenced in development of our 4(f) Statement.

You will find attached, the page from our design plans which illustrates the right-of-way which will be required from Asbury Park colored yellow and to be acquired in the name of the State. The right-of-way which is colored pink will be acquired in the name of the City of Mason City. The area which is bordered in blue will be the amount of land which will be the amount considered as residual land and may be utilized by the City as additional parkland or in any manner they may choose.

Please consider this our commitment to minimizing an unavoidable impact of transportation projects on parkland.

Yours very truly,

A handwritten signature in cursive script that reads "Harry S. Budd".

Harry S. Budd
Project Planning Engineer

HSB:HMH:lah

cc: C. I. MacGillivray, Director-Planning & Research, Iowa DOT
Bill Youells, Right-of-Way, Iowa DOT
Dave Drake, Project Planning, Iowa DOT

