

**CAPACITY IMPROVEMENT TO U.S. 20  
IN DUBUQUE COUNTY, IOWA**

Iowa DOT Project Number  
NHS-20-9(121)--19-31

**ENVIRONMENTAL ASSESSMENT**

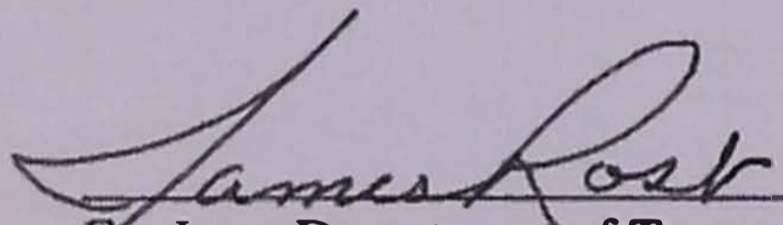
Submitted Pursuant to 42 U.S.C. 4332(2)(c)

By the  
**U.S. Department of Transportation  
Federal Highway Administration**

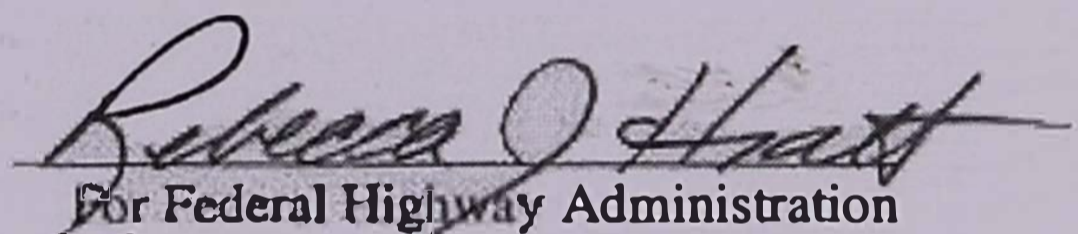
and

**IOWA DEPARTMENT OF TRANSPORTATION  
Highway Division  
Office of Location & Environment**

The signatures are considered acceptance of the general project location and concepts described in the environmental document unless otherwise specified by the approving officials. However, such approval does not commit to approve any future grant request to fund the preferred alternative.

  
For Iowa Department of Transportation

Sept. 24, 2003  
Date of Approval

  
For Federal Highway Administration

October 6, 2003  
Date Approved for Circulation

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The purpose of the Project is to improve the level of safety, provide additional roadway capacity, and improve traffic operations. The Project is located in Dubuque County, Iowa, from Peosta (Sundown Road and U.S. 20 interchange) to the Northwest Arterial in the City of Dubuque. The Project consists of improvements to U.S. Highway 20 that would eliminate at-grade intersections, develop interchanges, improve roadway geometry, and add additional capacity.

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Capacity improvement to U.S.  
20 in Dubuque County, Iowa

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AGENCIES, ABBREVIATIONS, AND SHORT FORMS

**APPENDIX**

**A Agency Coordination**

ADT	Average Daily Traffic
BMPs	Best Management Practices
CAC	Community Advisory Group
the Capacity Improvement Study	the U.S. 20 Capacity Improvement Study, from Route 20 to Drive
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CI	commercial and industrial use
the City	the City of Dubuque
the Commission	the Iowa State Highway Commission
the County	Dubuque County
the CTR	Critical Transportation Route on U.S. 20
the DTA	Dubuque Metropolitan Area Transportation Study
the EIS	environmental impact statement
the EPA	Environmental Protection Agency
the FEMA	Federal Emergency Management Agency
the FHWA	Federal Highway Administration
the ICCB	Iowa Council on Intergovernmental Cooperation
the IAC	Iowa Administrative Code
the Iowa DNR	Iowa Department of Natural Resources
the Iowa DOT	Iowa Department of Transportation
the ITC	intermodal transportation code
the LOS	level of service
the LRTP	Long Range Transportation Plan
the MVM	motor vehicle miles

## ACRONYMS, ABBREVIATIONS, AND SHORT FORMS

<b>AASHTO</b>	American Association of State Highway and Transportation Officials
<b>ADT</b>	average daily traffic
<b>BMPs</b>	Best Management Practices
<b>CAG</b>	Community Advisory Group
<b>the Capacity Improvement Study</b>	the U.S. 20 Capacity Improvement Study from Peosta to Devon Drive
<b>CEQ</b>	Council on Environmental Quality
<b>CFR</b>	Code of Federal Regulations
<b>CIN</b>	commercial and industrial network
<b>the City</b>	the City of Dubuque
<b>the Commission</b>	the Iowa State Highway Commission
<b>the County</b>	Dubuque County
<b>the CPZ</b>	Corridor Preservation Zone on U.S. 20
<b>dBA</b>	A-weighted decibels
<b>DMATS</b>	Dubuque Metropolitan Area Transportation Study
<b>EIS</b>	environmental impact statement
<b>EJ</b>	Environmental Justice
<b>EMA</b>	Dubuque County Emergency Management Agency
<b>EPA</b>	U.S. Environmental Protection Agency
<b>ESA</b>	Environmental Site Assessment
<b>FEMA</b>	Federal Emergency Management Agency
<b>FHWA</b>	Federal Highway Administration
<b>HUC 8</b>	8-digit level Hydrologic Unit Code
<b>IAC</b>	Iowa Administrative Code
<b>Iowa DNR</b>	Iowa Department of Natural Resources
<b>Iowa DOT</b>	Iowa Department of Transportation
<b>L<sub>eq</sub></b>	energy-equivalent sound level
<b>LOS</b>	level of service
<b>LRTP</b>	2020 Long Range Transportation Plan
<b>MVM</b>	million vehicle miles

<b>NAC</b>	Noise Abatement Criteria
<b>NEPA</b>	National Environmental Policy Act
<b>NHPA</b>	National Historic Preservation Act of 1966
<b>NRCS</b>	Natural Resources Conservation Service
<b>NRHP</b>	National Register of Historic Places
<b>PDO</b>	property damage only (crashes)
<b>Peosta</b>	the City of Peosta
<b>PMT</b>	Project Management Team
<b>REC</b>	recognized environmental condition
<b>Section 4(f)</b>	Section 4(f) of the U.S. Department of Transportation Act of 1966
<b>Section 6(f)</b>	Section 6(f) of the Land and Water Conservation Fund Act of 1965
<b>SIP</b>	state air quality implementation plan
<b>the State</b>	the State of Iowa
<b>ROW</b>	right-of-way
<b>UA</b>	Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
<b>U.S. 20 EA</b>	Environmental Assessment for the Capacity Improvement of U.S. 20 in Dubuque County
<b>USACE</b>	U.S. Army Corps of Engineers
<b>USACE – RI</b>	USACE – Rock Island District
<b>USC</b>	United States Code
<b>USDA</b>	U.S. Department of Agriculture
<b>USDOT</b>	U.S. Department of Transportation
<b>USFWS</b>	U.S. Fish & Wildlife Service
<b>USGS</b>	United States Geological Survey
<b>UST</b>	underground storage tank
<b>vpd</b>	vehicles per day



## CHAPTER I PROPOSED ACTION

The Iowa Department of Transportation (Iowa DOT) is developing a project that would provide a safer transportation corridor and would be consistent with efforts to improve capacity on U.S. 20 in the City of Dubuque (the City), Dubuque County (the County), and throughout the State of Iowa (the State). The general location of the proposed action is shown in Figure I-1.

From west to east, the proposed action consists of the development of a freeway facility transitioning to a signalized arterial. The following characteristics are design elements of the proposed action that would increase capacity and provide a safer transportation corridor:

- Freeway Facility – Peosta to east of Seippel Road
  - Interchanges – Full-access interchanges are proposed for selected locations. Access roads are proposed to reroute existing at-grade intersections to the interchanges.
  - Access Control – Existing residential, farmstead, and commercial driveways would be rerouted to proposed interchanges by the use of frontage and access roads.
  - Median Design – A consistent 50-foot median would be used for the freeway facility.
- Signalized Arterial – east of Seippel Road to Northwest Arterial
  - Turn Lane Capacity – The signalized arterial facility would be upgraded to provide dual left-turn lanes at selected U.S. 20 intersections.

The existing interchange serving the City of Peosta (Peosta) at county road Y-21 (Sundown Road) was selected as the west terminus (refer to Figure I-2, Study Area). This terminus is a logical connection point for capacity improvements compatible with a wide range of alternatives, including upgrading U.S. 20 to a freeway facility. The proposed action would extend 8 miles east to the intersection of U.S. 20 with Northwest Arterial. This intersection was selected as the east terminus because U.S. 20 reflects an urban environment from this point east and has different safety and capacity issues than the higher-speed rural portion of U.S. 20 from Peosta to Northwest Arterial. Additionally, the area east of Seippel Road provides for a transitional area from the proposed freeway to the existing signalized arterial. Therefore, the Study Area is from the interchange of U.S. 20 at Sundown Road to the intersection of U.S. 20 with Northwest Arterial.



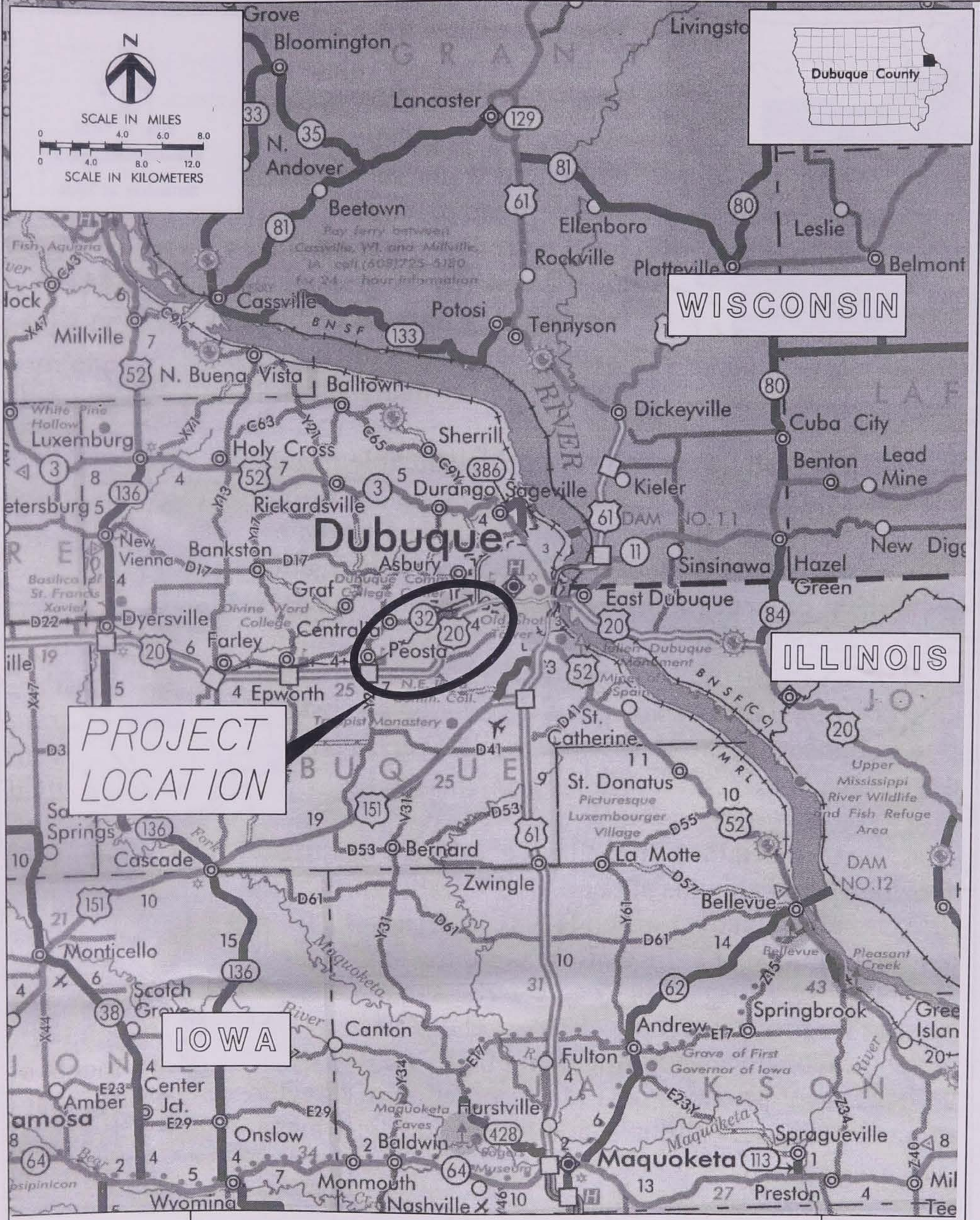
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Dubuque County

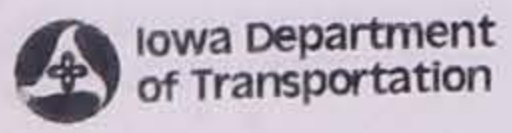


PROJECT LOCATION

WISCONSIN

ILLINOIS

IOWA



### Location Map

U.S. 20 Capacity Improvement Study,  
Dubuque County, Iowa  
Environmental Assessment



Date  
October 2003

Figure  
I - 1

## CHAPTER II

### HISTORY OF THE PROPOSED ACTION

This chapter provides a background of the development of U.S. 20 within the City and the County prior to this Environmental Assessment. Statewide efforts to establish U.S. 20 as a freeway system across the State are also described. In addition, this chapter explains the development of this document, the Environmental Assessment for the Capacity Improvement of U.S. 20 in Dubuque County (U.S. 20 EA).

#### A. PREVIOUS DEVELOPMENT EFFORTS ON U.S. 20 IN IOWA

Since 1960, Iowa DOT has been working to upgrade U.S. 20 to a freeway with full access control across the entire State. A final report by the Automotive Safety Foundation of Washington, D.C., submitted to the Iowa Highway Study Committee in November 1960, outlined the State's highway needs between 1960 and 1980. One of the most significant recommendations of the report was the creation of a 1,217-mile freeway system to "extend to all important areas of Iowa the same safety, ease of movement and preservation of investment as provided by the development of the Interstate routes" (Iowa State Highway Commission, 1974).

In 1965, the Iowa State Highway Commission (the Commission) adopted a freeway system that totaled 749 miles. The system included Freeway 520 to serve the U.S. 20 corridor in northern Iowa, including the cities of Sioux City, Fort Dodge, Cedar Falls, Waterloo, and Dubuque (Commission, 1974).

Since 1965, Iowa DOT has been funding projects to upgrade U.S. 20 to a four-lane freeway across the entire State. Although a freeway is the ultimate goal for the U.S. 20 corridor, some segments have been constructed as free-flow expressways, allowing limited at-grade signalized access. These expressway segments may be upgraded to freeways at some point in the future.

In the last 10 years, Iowa DOT's ongoing planning process, known as *Iowa in Motion*, was developed in response to Iowa's changing transportation needs. The *Iowa in Motion* process led to the development of a State Transportation Plan, which was adopted by the Commission on July 15, 1997. The adopted plan serves as a guide for transportation investment decisions through the year 2020. In the highway-related portion of the plan, increased emphasis is placed on the interstate system and the commercial and industrial network (CIN). These interconnected highways play a critical role in national and international trade and serve major population centers and regional travel. The CIN is composed of over 2,000 miles of existing primary highways identified by the State legislature to enhance the opportunities for the development and diversification of the State's economy and includes U.S. 20. Plans to rebuild U.S. 20 in the area of the proposed action are consistent with the potential improvements to the CIN noted in the *Iowa in Motion* plan (Iowa DOT, 1997).

To date, construction to upgrade U.S. 20 to a four-lane highway in the State has been completed on several segments of the U.S. 20 corridor:

- Sioux City to east of Merville (expressway)
- U.S. 169 to Iowa 17 (expressway)
- Iowa 17 to U.S. 65 (freeway)
- U.S. 65 to Iowa 14 (freeway)
- Iowa 14 to Iowa 38 (freeway)
- Iowa 38 to Dubuque (expressway)

Other segments are under development. Improvements to the remaining segments of U.S. 20, including upgrading U.S. 20 over the Mississippi River to four lanes, are at various stages of the planning and design process. The construction schedule for these projects is currently unknown as they are not currently fully funded in the State's *Transportation Improvement Program* (Iowa DOT, 2002). Refer to Figure II-1, Status of U.S. 20 Projects.

## **B. PREVIOUS DEVELOPMENT EFFORTS ON U.S. 20 IN DUBUQUE COUNTY**

Iowa DOT has been concerned about the rapid growth of traffic volumes in the U.S. 20 corridor in the County for many years. In the early 1990s, U.S. 20 was reconstructed from Devon Drive to the Julien Dubuque Bridge (at the Mississippi River) to provide free-flow operations on U.S. 20, improve safety, and increase traffic capacity. The following summarizes previous development efforts on U.S. 20 in Dubuque County.

### **1. 1995 Traffic Study**

In 1995, Iowa DOT initiated the Traffic Study of U.S. 20 from Old Highway Road to Devon Drive. The purpose of the study was to identify schematic short- and long-term improvements to provide acceptable traffic operations and improve safety in the U.S. 20 corridor. The recommendations of the study included reconstruction of U.S. 20 and selected cross-street approaches to increase traffic capacity and improve traffic operations. Staged implementation of the improvements, from years 2005 to 2010, was recommended to maintain an acceptable level of traffic service.

### **2. 1998 Concept Study**

In 1998, Iowa DOT initiated the U.S. 20 Concept Study from Swiss Valley Road through Devon Drive. The purpose was to identify feasible concepts to provide a high level of access control and free-flow operations on U.S. 20 (similar to the reconstructed section of U.S. 20 east of Devon Drive). The concepts were developed to analyze traffic operations, establish approximate right-of-way (ROW) impacts, and determine estimated construction costs.

### **3. 2000 Corridor Preservation**

In February 2000, a public information meeting was held to present the concepts developed for Swiss Valley Road to Old Highway Road and to propose implementation of a Corridor Preservation Zone on U.S. 20 (the CPZ). The CPZ was implemented by the Commission in March 2000 to preserve the U.S. 20 corridor for future roadway development. The CPZ process provides a 30-day review period before building permits, subdivision plats, and zoning changes can be approved within the CPZ. The review allows the State to determine whether the proposed changes are compatible with possible future improvements to the U.S. 20 corridor. Within the 30-day review period, the State has the option to initiate acquisition of all or part of the property being reviewed. In October 2002, a public information meeting was held to present and discuss the extension of the CPZ from its current terminus of Swiss Valley Road west to the interchange at Peosta. Recent development pressures of the area west of Old Highway Road on U.S. 20 created the need to extend the CPZ. The CPZ was renewed and extended to the Peosta interchange in January 2003.

### **4. U.S. 20 Intersections Project and 2001 Capacity Improvement Study**

Based on the outcome of the U.S. 20 Concept Study, the City in coordination with the State began implementing many of the proposed short-term improvements recommended previously. These improvements, called the U.S. 20 Intersections Project, include partial reconstruction of selected U.S. 20 side-street approaches and upgrading of the traffic signal controllers from Old Highway Road through Devon Drive.

In addition, the State initiated capacity improvement and environmental studies to be completed in conjunction with the U.S. 20 Capacity Improvement Study from Peosta to Devon Drive. These studies, undertaken in 2001, were to develop long-term safety and capacity improvement alternatives.

The Federal Highway Administration (FHWA) determined that an environmental impact statement (EIS) would be the appropriate level of environmental study for NEPA compliance for the Capacity Improvement Study. An agency scoping meeting and a public information meeting were held in March 2001 to introduce the project to agencies and the public. A second public meeting was held in October 2001 to discuss in more detail the roadway alternatives and the project purpose and need. Agency concurrence point meetings were held on January 29, 2002, for Concurrence Point 1, Purpose and Need, and for Concurrence Point 2, Alternatives to Be Analyzed.

The NEPA process for the study area between Peosta and Devon Drive was stopped when FHWA and Iowa DOT agreed to split the project into east and west sections. It was agreed that the west section from Peosta to Northwest Arterial would take immediate priority and that the NEPA process would be resumed using these termini as the limits of the proposed action. The Notice of Intent to prepare the EIS for the Capacity Improvement Study was withdrawn, and the preparation of this U.S. 20 EA for the west section was initiated.

One reason for the priority given to the west section was the severity of crashes that have occurred. Two areas in the west section have higher crash severity rates than Statewide averages (refer to Chapter III, Purpose and Need) for the years 1997 through 2001. Additionally, in contrast with the intensely developed east section, the west section is primarily rural in nature. Combined with topography that is restrictive in terms of roadway location and development of alignments, the footprint of the Project evaluated in this U.S. 20 EA would allow preservation of the future ROW needs and minimization of impacts on commercial development. In addition, portions of the west section, in contrast to the east section, can more readily be constructed in stages, providing additional flexibility on the timing of construction expenditures.

FHWA and Iowa DOT determined that an EA was likely to fulfill the NEPA compliance requirement for this proposed action, where the anticipated solution would involve improving the level of safety and increasing the capacity of an existing roadway corridor. This determination was based on the limited number of potentially significant impacts (such as socioeconomic, relocation, environmental justice, and historical property impacts).

It is anticipated that properties eligible for the National Register of Historic Places (NRHP) can be avoided precluding the necessity of invoking Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966. Section 4(f) stipulates that no highway project requiring the use of publicly owned parkland, recreation areas, wildlife and waterfowl refuges, or historic properties can be approved unless there are no feasible and prudent alternatives to such use.

The schedule for developing a NEPA document for the east section is undetermined at this time.

### **C. OTHER PROJECTS IN OR NEAR THE STUDY AREA**

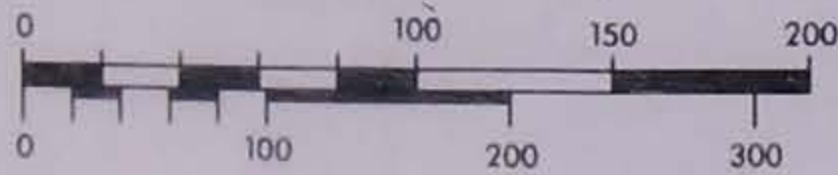
In addition to the proposed action addressed in this U.S. 20 EA, there are several other projects directly or indirectly related to U.S. 20 within the City and the County. These projects are at various stages of study and/or implementation. Table II-1 identifies the various projects that are occurring in the Study Area and includes the lead agency and the current status of the projects.

**TABLE II-1  
PROJECTS IN OR NEAR THE STUDY AREA**

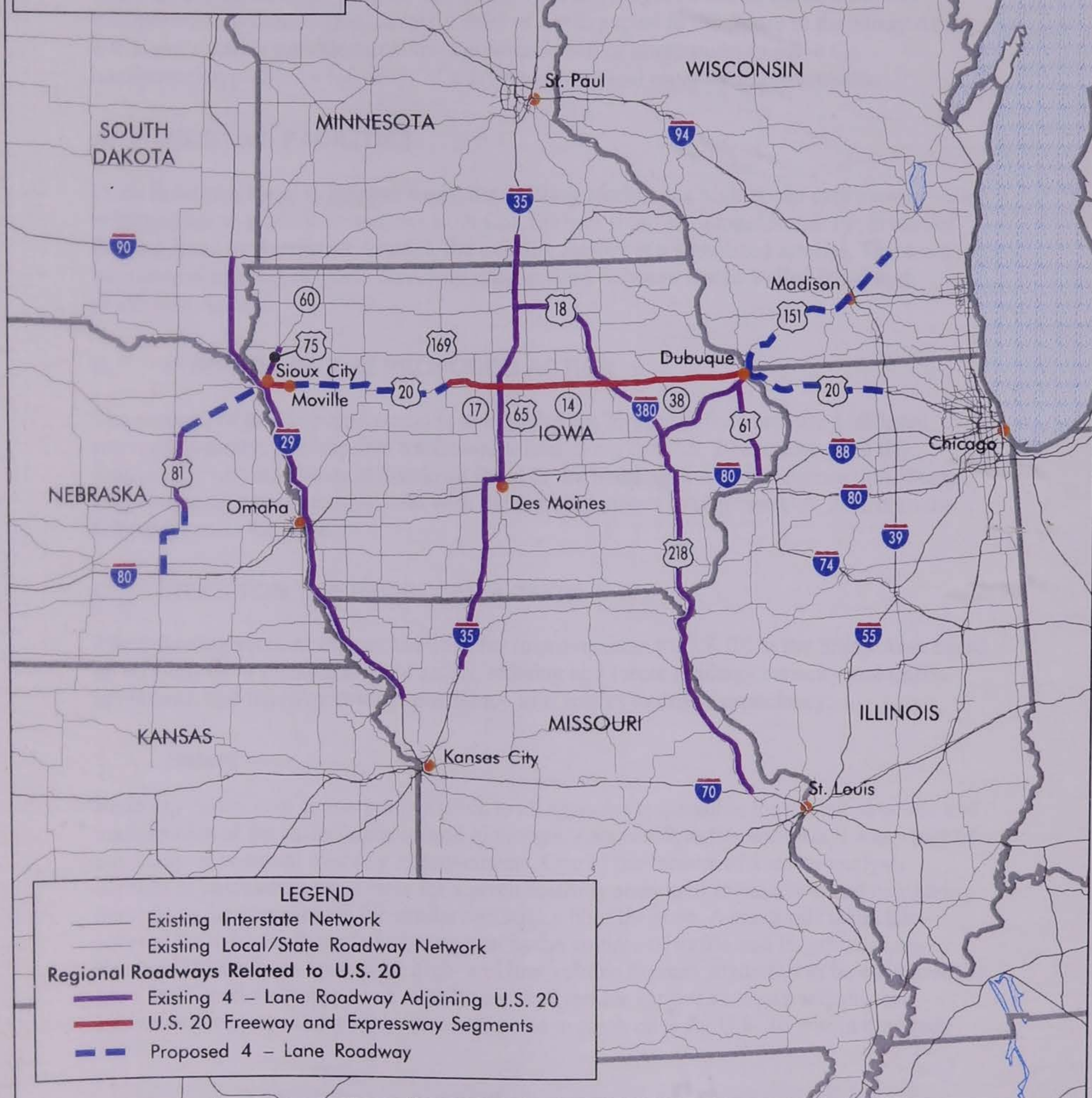
Project	Lead Agency	Project Description	Status
U.S. 20 Intersections	City of Dubuque/Iowa DOT	Short-term improvements to various intersections on U.S. 20 within the City	Construction planned for 2003 and 2004
Capacity Improvement of U.S. 20 in the City of Dubuque	Iowa DOT	Traffic concept studies of U.S. 20 from Northwest Arterial to Devon Drive	Concept studies initiated
U.S. 20 Corridor Preservation Zone Project	Iowa DOT	Extension of the CPZ from Swiss Valley Road to the interchange at Peosta	Public meeting held in October 2002; the CPZ extended in January 2003
U.S. 20 Mississippi River Bridge Capacity Improvement Study	Iowa DOT	Julien Dubuque Bridge	Project in final design
Southwest Arterial	City of Dubuque	Proposed new highway on the southwest side of the City between U.S. 61/151 and U.S. 20	Development of addendum to EA underway
Northwest Arterial North Extension	Iowa DOT	Extension north to U.S. 52	Project completed
Potential Southeast Extension of Northwest Arterial	City of Dubuque	Extension from U.S. 20 and Northwest Arterial intersection to the proposed Southwest Arterial	Project in Metropolitan Planning Organization's long-range transportation plan, but not planned in the reasonably foreseeable future



SCALE IN MILES



SCALE IN KILOMETERS

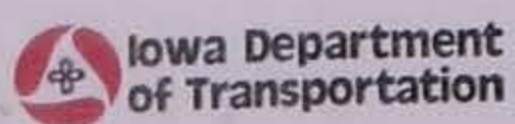


**LEGEND**

- Existing Interstate Network
- Existing Local/State Roadway Network
- Regional Roadways Related to U.S. 20**
- Existing 4 - Lane Roadway Adjoining U.S. 20
- U.S. 20 Freeway and Expressway Segments
- - - Proposed 4 - Lane Roadway

**Status of U.S. 20 Projects**

U.S. 20 Capacity Improvement Study,  
Dubuque County, Iowa  
Environmental Assessment



Date  
October 2003

Figure  
II-1



## **CHAPTER III PURPOSE AND NEED**

This chapter explains the purpose of and need for the proposed action based on the transportation problems that currently exist or are expected in the future in the Study Area. Sufficient detail is provided to allow the formulation of alternatives to solve the transportation problems by means of a safer roadway and capacity improvements.

### **A. EXISTING FACILITIES**

From Sundown Road to Seippel Road, the existing facility is a high-speed expressway with unsignalized at-grade intersections from Cox Springs Road to Seippel Road. From east of Seippel Road to Northwest Arterial, the existing facility is a signalized arterial. There are also several existing at-grade driveway intersections between Swiss Valley Road and Northwest Arterial.

### **B. PURPOSE OF THE PROPOSED ACTION**

The purpose of the proposed action is to improve the level of safety, provide additional roadway capacity, and improve traffic operations along the U.S. 20 corridor from the interchange serving Peosta at Sundown Road to the Northwest Arterial intersection. These improvements would be consistent with the ongoing efforts to improve U.S. 20 within the City and across the State.

### **C. NEED FOR THE PROPOSED ACTION**

The following sections discuss the need for improvements to U.S. 20 in the Study Area based on an analysis of existing level of safety, existing and future roadway capacity and traffic operations, and roadway design consistency as it relates to driver expectancy.

#### **1. Safety**

Roadway safety is of primary importance to all agencies responsible for the construction and maintenance of the nation's streets and highways. As a result, safety analysis is a key part of any study of potential roadway improvements. One of the aspects of a safety analysis consists of calculating crash rates for a given roadway section or intersection and comparing that rate to the average rate for similar facilities within the state. A crash rate takes into account the total number of crashes as well as the volume of traffic and length of roadway involved. This allows crashes on high- and low-volume primary highways to be compared. Iowa DOT tracks average crash rates by facility type for various roadway sections and intersection classes. These rates were compared to crash rates for U.S. 20 within the Study Area.

For safety analysis, the Study Area was divided into four sections:

- Sundown Road (Peosta) to Cottingham Road
- Cottingham Road to Seippel Road
- Seippel Road to Old Highway Road
- Old Highway Road to Northwest Arterial

Table III-1 shows the total number of crashes and the crash rates by roadway section compared to the Statewide average. The numbers shown are for the most recent five-year period for which data are available (1997 through 2001). This comparison of crash rates on U.S. 20 to Statewide average crash rates indicates that the section from Old Highway Road to Northwest Arterial experiences a much higher number of crashes than an average primary urban highway.

**TABLE III-1  
CRASH SUMMARY BY ROADWAY SECTION<sup>1</sup>**

U.S. 20 Roadway Section	Crashes				Rate (Crashes per 100 MVM) <sup>3</sup>	Statewide Average Rate	Percent Above/Below Statewide Average <sup>4</sup>
	Fatal	Injury	PDO <sup>2</sup>	Total			
Sundown Road to Cottingham Road	1	14	25	40	50	116 <sup>5</sup>	-57%
Cottingham Road to Seippel Road	2	41	68	111	108	116 <sup>5</sup>	-7%
Seippel Road to Old Highway Road	0	20	18	38	117	393 <sup>6</sup>	-70%
Old Highway Road to Northwest Arterial	0	54	42	96	591	393 <sup>6</sup>	50%
<b>Total</b>	<b>3</b>	<b>129</b>	<b>153</b>	<b>285</b>	-	-	-

Notes:

<sup>1</sup> 1997 through 2001.

<sup>2</sup> PDO = property damage only (crashes).

<sup>3</sup> MVM = million vehicle miles.

<sup>4</sup> Crash rates below the Statewide average are shown as negative values.

<sup>5</sup> Statewide rate for rural primary highways.

<sup>6</sup> Statewide rate for municipal primary roadways.

Source: Iowa DOT, Highway Division, Office of Traffic and Safety.

The total number of crashes and the crash rate are not the only criteria used to evaluate safety on streets and highways; crash severity is also an important evaluation criterion. The crash severity rate considers only those crashes that resulted in a fatality or an injury and is an indication of the seriousness of the accidents occurring on a given roadway section.

Table III-2 compares the crash severity rates on U.S. 20 in the Study Area to the Statewide averages for the years 1997 through 2001. This analysis indicates that crashes on two sections of U.S. 20 are generally more severe than Statewide averages, with severity on the section from Old Highway Road to Northwest Arterial being twice the average. Two fatalities are known to have occurred on U.S. 20 during 2001, one on the section from

Sundown Road to Cottingham Road and one on the section from Cottingham Road to Seippel Road. There was also one fatality in 1998 on the section from Cottingham Road to Seippel Road. The recent fatal crashes are an indication that safety may be becoming a more severe problem along U.S. 20 in the Study Area.

**TABLE III-2  
CRASH SEVERITY RATE<sup>1</sup>**

U.S. 20 Roadway Section	Crashes			Rate (Crashes per 100 MVM) <sup>2</sup>	Statewide Average Rate	Percent Above/Below Statewide Average <sup>3</sup>
	Fatal	Injury	Total			
Sundown Road to Cottingham Road	1	14	15	19	40 <sup>4</sup>	-53%
Cottingham Road to Seippel Road	2	41	43	42	40 <sup>4</sup>	5%
Seippel Road to Old Highway Road	0	20	20	61	164 <sup>5</sup>	-63%
Old Highway Road to Northwest Arterial	0	54	54	332	164 <sup>5</sup>	103%
<b>Total</b>	<b>3</b>	<b>129</b>	<b>132</b>	-	-	-

Notes:

<sup>1</sup> 1997 through 2001.

<sup>2</sup> MVM = million vehicle miles.

<sup>3</sup> Crash rates below the Statewide average are shown as negative values.

<sup>4</sup> Statewide rate for rural primary highways.

<sup>5</sup> Statewide rate for municipal primary roadways.

Source: Iowa DOT, Highway Division, Office of Traffic and Safety.

## 2. Roadway Capacity

### a. Existing Traffic Trends

U.S. 20 is the highest-volume east-west roadway in the County. The preliminary 2001 average daily traffic (ADT) on U.S. 20 outside the metropolitan area from Sundown Road (Peosta) to Seippel Road is approximately 15,000 vehicles per day (vpd). Within the City corporate limits from Seippel Road to Northwest Arterial, the average is 21,550 vpd (refer to Figure III-1, Existing and No-Build Traffic Volumes). In the Study Area, the daily percentage of trucks on U.S. 20 is approximately 10 percent of the total traffic.

Traffic volumes within the Study Area grew steadily from 1993 to 2001, with an average increase of 40 percent. During that 8-year period, the annual rate of growth on various sections of the U.S. 20 corridor ranged from 3.7 to 4.7 percent. Table III-3 shows the traffic volume trends along U.S. 20 from Sundown Road to Northwest Arterial.

**TABLE III-3  
TRAFFIC VOLUME TRENDS**

U.S. 20 Roadway Section	1993 (vpd)	1997 (vpd)	2001 (vpd)	Percentage of Change 1993-2001	Annual Growth Rate 1993-2001
Sundown Road to Swiss Valley Road	11,000	14,200	15,200	38%	4.1%
Swiss Valley Road to Seippel Road	11,200	N/A	15,000	34%	3.7%
Seippel Road to Old Highway Road	14,000	16,300	20,200	44%	4.7%
Old Highway Road to Northwest Arterial	15,800	18,700	22,900	45%	4.7%

Source: Iowa DOT, Planning & Programming Division, Office of Transportation Data, traffic flow maps.

**b. Existing Traffic Operations**

The quality of traffic operations for a given roadway section or intersection is typically identified using level of service (LOS). LOS categories range from LOS 'A' (best) to LOS 'F' (worst). For intersections, LOS is based on the amount of delay experienced by motorists, with separate thresholds established for each LOS grade for both signalized and unsignalized intersections. At unsignalized intersections, LOS 'F' occurs when there are not enough gaps to allow vehicles on minor streets to safely cross through traffic on the major street (Transportation Research Board, 2000). LOS 'B' or 'C' is generally accepted as the limit of acceptable traffic operations on rural roadways.

Table III-4 lists the existing LOS for the a.m. and p.m. peak hours for key intersections within the Study Area. For unsignalized intersections, the LOS for the crossroad is shown; for signalized intersections, the overall intersection LOS is shown.

**TABLE III-4  
EXISTING LEVEL OF SERVICE**

Intersection with U.S. 20	A.M. Peak	P.M. Peak
<i>Unsignalized</i>		
Sundown Road (North Ramp)	B	B
Sundown Road (South Ramp)	B	B
Thunder Hills Road	C	D
Swiss Valley Road	B	B
North Cascade Road	D	F
<i>Signalized</i>		
Old Highway Road	A	A
Northwest Arterial	C	D

Source: HDR Engineering, June 2003.

Table III-4 shows that the LOS at several intersections has fallen to unacceptable levels. For unsignalized intersections, a decrease in the LOS equates to a reduction in the opportunity to enter or cross U.S. 20 from cross streets. This often translates to safety issues as drivers begin to take more chances to cross or enter the mainline traffic stream.

**c. Future Traffic Trends**

Daily traffic forecasts for the U.S. 20 corridor in the year 2030 were developed using the Dubuque Metropolitan Area Transportation Study (DMATS) 2020 travel demand model. Prior to developing the 2030 volumes, the level of detail in the model for the U.S. 20 corridor was increased to improve the accuracy of the forecasts. Growth rates from 2001 to 2020 were utilized to extrapolate the traffic forecasts to 2030.

The resulting 2030 forecasts indicate annual traffic growth rates ranging from 2.1 to 2.9 percent for U.S. 20 traffic volumes in the Study Area if no major improvements to U.S. 20 occur (the No-Build Alternative). Under this scenario, traffic volumes from Swiss Valley Road to Seippel Road are expected to reach 33,900 vpd by 2030. Traffic volumes within the metropolitan area from Old Highway Road to Northwest Arterial are expected to increase to 39,900 vpd by 2030 (refer to Figure III-1, Existing and No-Build Traffic Volumes). Table III-5 provides detailed information on the projected traffic volume increases along U.S. 20 that would occur without the Project.

**TABLE III-5  
PROJECTED TRAFFIC VOLUMES**

U.S. 20 Roadway Section	2001 (vpd)	2030 (vpd)	Percentage of Change 2001-2030	Annual Growth Rate 2001-2030
Sundown Road to Swiss Valley Road	15,200	29,200	92%	+2.3%
Swiss Valley Road to Seippel Road	15,000	33,900	126%	+2.9%
Seippel Road to Old Highway Road	20,200	36,400	80%	+2.1%
Old Highway Road to Northwest Arterial	22,900	39,900	74%	+1.9%

Sources: HDR Engineering, June 2003.

Iowa DOT, Planning & Programming Division, Office of Transportation Data, traffic flow maps.

**d. Future Traffic Operations**

Iowa DOT has established minimum LOS criteria for the design of new or reconstructed roadways. For rural expressways, the criterion is LOS 'B,' and for urban expressways, the criterion is LOS 'C' (Iowa DOT, 2000). Table III-6 lists the estimated future LOS for the a.m. and p.m. peak hours for key intersections within the Study Area. For unsignalized intersections, the LOS for the crossroad is shown; for signalized intersections, the overall intersection LOS is shown. This planning level analysis shows that all of the intersections within the Study Area are expected to operate at LOS 'D' or worse by the year 2030 and thus do not meet the established design criteria. It is predicted that with implementation of the proposed action, the criterion of LOS 'B' for rural expressways and LOS 'C' for urban expressways will be achieved in most cases.

**TABLE III-6  
FUTURE LEVEL OF SERVICE**

Intersection with U.S. 20	A.M. Peak	P.M. Peak
<i>Unsignalized</i>		
Sundown Road (North Ramp)	D	F
Sundown Road (South Ramp)	E	F
Thunder Hills Road	F	F
Swiss Valley Road	F	F
North Cascade Road	F	F
<i>Signalized</i>		
Old Highway Road	F	F
Northwest Arterial	E	F

Source: HDR Engineering, June 2003.

This deterioration of traffic operations is likely to increase the number of crashes on U.S. 20 in the Study Area as drivers at unsignalized intersections take more risks and use smaller gaps when entering the traffic stream. The use of smaller gaps is also likely to result in disruption and increased delay to traffic on U.S. 20.

Although the installation of traffic signals at unsignalized intersections would provide the opportunity for sideroad traffic to cross or turn onto U.S. 20, the installation of additional traffic signals within the Study Area is not recommended due to the high speed and existing geometric conditions. The high speed and roadway geometry would limit the ability to see traffic signals and may exacerbate, rather than improve, the crash rate on U.S. 20.

### 3. Roadway Design Consistency

The geometric design of U.S. 20 from Peosta through Northwest Arterial results in inconsistent roadway design elements. Although not substandard based on individual design criteria, this segment contains roadway design elements that are inconsistent with current design standards and driver expectancy. Driver expectancy relates to the consistency of design elements for an individual roadway as well as consistency within a system of roadways.

The primary design element on U.S. 20 that is inconsistent with current design standards is the treatment and width of the median. The median treatment and width on U.S. 20 vary and do not follow a logical progression from a rural roadway to an urban roadway. From Peosta to Old Highway Road, the median is a 50-foot-wide rural, depressed, grass median, with the exception of a 1-mile section near Swiss Valley Road that has a 13-foot-wide curbed median with hard surfacing. At Old Highway Road, the median transitions to a 4-foot-wide curbed median with grass surfacing until Northwest Arterial. Although any one of these median treatments may be appropriate for a roadway, the mixture of treatments along a suburban and urban expressway violates driver expectancy, which may impact overall safety of the facility.

The existing median treatments cause problems for vehicles turning onto and off of U.S. 20. The narrow, 4-foot-wide section of median on U.S. 20 does not provide enough space to develop a left-turn lane. The 50-foot-wide depressed median in the western portion of the Study Area does not provide adequate space for large trucks turning left from cross streets to pause in the intersection during a two-stage turn.

These geometric conditions compound the safety and capacity problems described earlier and are not consistent with the U.S. 20 facility west of the Study Area.

#### **D. PURPOSE AND NEED SUMMARY**

The purpose of the proposed action is to:

- Improve the level of safety on U.S. 20 by reducing the number of conflict points and providing interchange access only west of Seippel Road.
- Provide additional roadway capacity.
- Improve traffic operations.

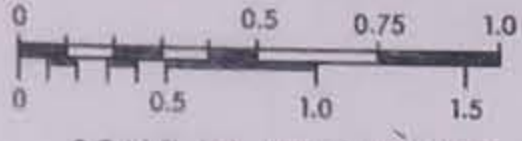
U.S. 20 is the primary east-west arterial in the County, and traffic volumes in the Study Area have increased steadily in recent years. This results in poor traffic operations for sideroad traffic and increased crash and severe crash rates along the corridor.

Traffic volumes on U.S. 20 within the Study Area are projected to increase between 74 and 100 percent by the year 2030. With this magnitude of increase, sideroad operations would be at unacceptable levels and likely would contribute to an increase in crashes.

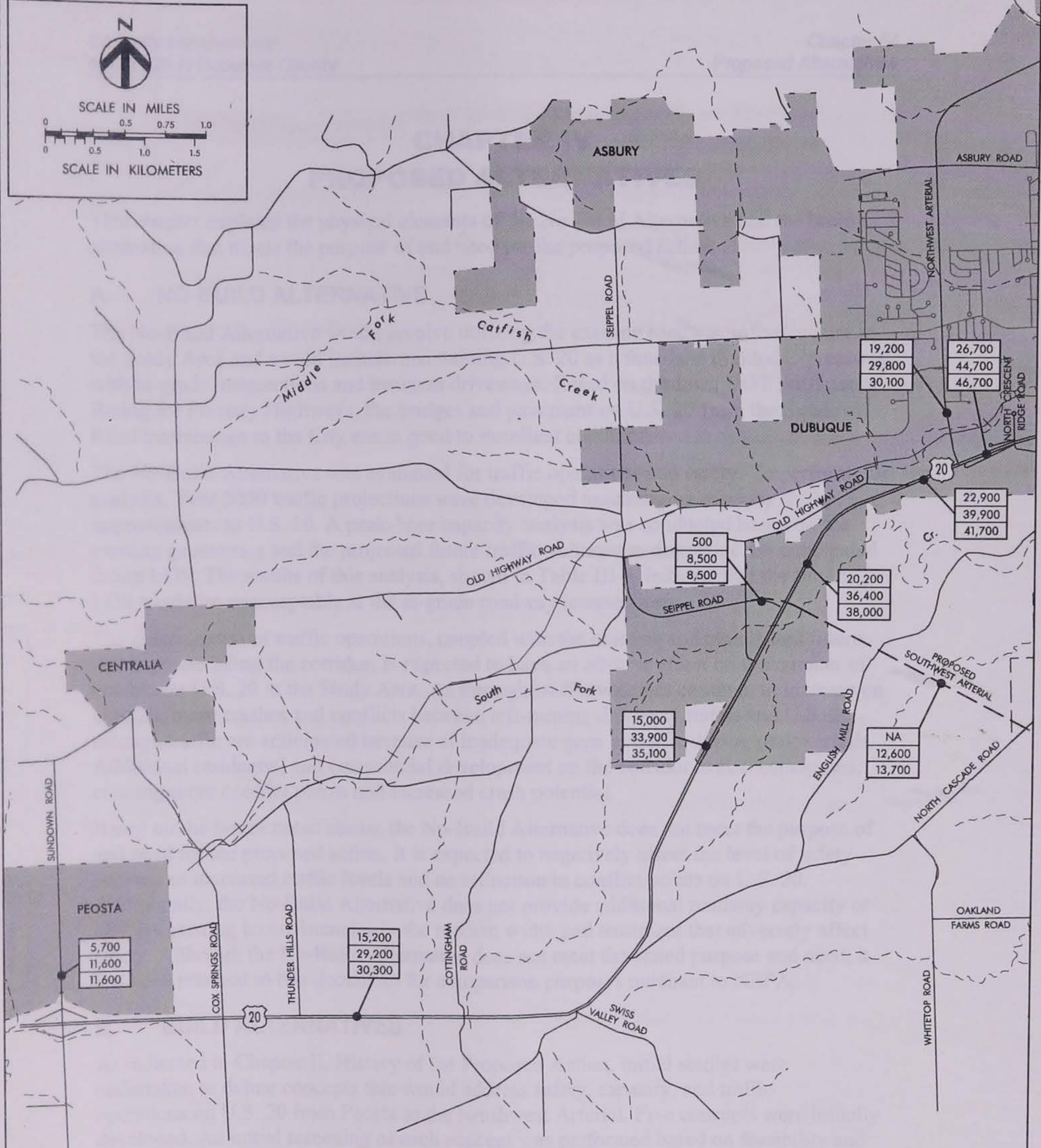
Roadway alternatives were developed in an effort to address the existing and foreseeable problems in the Study Area, thereby meeting the purpose of and need for the proposed action.



SCALE IN MILES



SCALE IN KILOMETERS

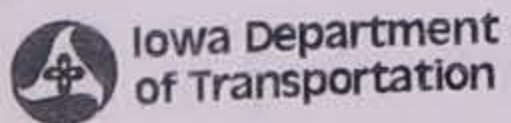


LEGEND

00,000	- Latest Available Traffic Count <sup>1</sup>
00,000	- 2030 No-Build Daily Traffic Forecast <sup>2</sup>
00,000	- 2030 Build Daily Traffic Forecast <sup>2</sup>

Sources :

1. Iowa DOT, Planning and Programming Division, Office of Transportation Data, Traffic Flow Maps.
2. HDR Engineering, June 2003.
3. 2030 No-Build and Build Traffic Projections Assume the Southwest Arterial is Constructed.



### Existing and No-Build Traffic Volumes

U.S. 20 Capacity Improvement Study,  
Dubuque County, Iowa  
Environmental Assessment



Date  
October 2003

Figure  
III - 1



## CHAPTER IV

### PROPOSED ALTERNATIVES

This chapter explains the physical elements of the No-Build Alternative and the build alternative that meets the purpose of and need for the proposed action.

#### A. NO-BUILD ALTERNATIVE

The No-Build Alternative would involve utilizing the existing roadway infrastructure in the Study Area and would include maintaining U.S. 20 as a four-lane divided expressway with at-grade intersections and business driveways. Based on the Iowa DOT Sufficiency Rating for Primary Highways, the bridges and pavement on U.S. 20 from the Sundown Road interchange to the City are in good to excellent condition.

The No-Build Alternative was evaluated for traffic operations and safety. To perform this analysis, Year 2030 traffic projections were developed assuming no capacity improvements to U.S. 20. A peak-hour capacity analysis was conducted based on the existing geometrics and the projected future traffic volumes to determine the anticipated future LOS. The results of this analysis, shown in Table III-6, indicate that the future LOS would be unacceptable at the at-grade roadway intersections.

The deterioration of traffic operations, coupled with the existing and anticipated future development along the corridor, is expected to have an adverse effect on the number of crashes on U.S. 20 in the Study Area. As through-traffic volumes continue to increase on U.S. 20, more crashes and conflicts between left-turning driveway traffic and U.S. 20 through traffic are anticipated because of inadequate gaps in traffic during peak periods. Additional residential and commercial development on the corridor is also anticipated, creating more conflict points and increased crash potential.

Based on the issues noted above, the No-Build Alternative does not meet the purpose of and need for the proposed action. It is expected to negatively affect the level of safety because of increased traffic levels and no reduction in conflict points on U.S. 20.

Additionally, the No-Build Alternative does not provide additional roadway capacity or address existing inconsistencies in the median width and treatment that adversely affect safety. Although the No-Build Alternative does not meet the stated purpose and need, it has been retained in this document for comparison purposes pursuant to NEPA.

#### B. BUILD ALTERNATIVES

As indicated in Chapter II, History of the Proposed Action, initial studies were undertaken to define concepts that would address safety, capacity, and traffic operations on U.S. 20 from Peosta to the Northwest Arterial. Five concepts were initially developed. An initial screening of each concept was performed based on feasibility and potential environmental impacts. This screening information was reviewed by the Project Management Team<sup>1</sup> (PMT) and the participating review agencies<sup>2</sup> involved with the

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<sup>1</sup> The Project Management Team consists of Iowa DOT technical staff that provides guidance and ownership throughout the planning and development of a project.

NEPA/404 process.<sup>3</sup> Plan view layouts of each concept were provided. Additionally, a description of each concept was provided that included potential design constraints and implications of concept implementation, including business and residential displacements, out-of-distance travel, and traffic operations. Environmental impacts concerning waters of the U.S. (including wetlands), floodplains, potential historic and archaeological sites, and potential hazardous waste sites were evaluated for each concept. The screening concluded that two concepts (Alternatives A and B) would be retained and evaluated in further detail.<sup>4</sup> The three concepts not retained for further evaluation were eliminated due to constructability concerns, out-of distance travel concerns, and unacceptable traffic operations. Each concept had similar environmental impacts.

Detailed evaluation of Alternatives A and B involved field-level environmental studies (wetlands/waters of the U.S., historic resources, hazardous materials investigations, and noise impacts) and application of more detailed design information to determine property acquisitions and cost.

The PMT identified a technically favored alternative based on operations, total cost, and social and environmental impacts. Each alternative would have similar natural environment impacts. The following summarizes the issues that led the PMT to identify a technically favored alternative:

- Traffic Operations – From a traffic standpoint, both alternatives provide acceptable traffic operations. Alternative B, with an interchange at North Cascade Road, would have less out-of-distance travel for North Cascade Road and business traffic having a destination in Dubuque.
- Interchange Location and Associated Impacts – Alternative B would fully impact the 60-lot Lost Canyon Mobile Home Park. Alternative A would not impact any mobile homes at the Lost Canyon Mobile Home Park.
- Interchange Location and Cost – Based on preliminary estimates, construction costs for the two alternatives are nearly identical. However, the approximate ROW cost for Alternative A is over \$6 million less expensive than Alternative B primarily due to the impacts on the Lost Canyon Mobile Home Park. The replacement costs for mobile homes impacted are estimated to range from

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<sup>2</sup> Participating review agencies are the U.S. Army Corps of Engineers – Rock Island District; U.S. Fish & Wildlife Service – Rock Island District; U.S. Environmental Protection Agency – Region 7; U.S. Department of Agriculture Natural Resources Conservation Service; and Iowa Department of Natural Resources.

<sup>3</sup> A Statewide Implementation Agreement established a concurrent “NEPA/404 process” for highway projects in Iowa. The *NEPA process* refers to the development of a full and fair discussion of the social, economic, and environmental issues associated with a proposed project and its reasonable alternatives. The purpose is to ensure that the policies and goals defined in the National Environmental Policy Act are infused into the ongoing programs and actions of the Federal government. The *Section 404 process* refers to the permitting of a project that involves discharge of dredged or fill material into waters of the United States. The permitting of such a project is subject to provisions of Section 404 of the Clean Water Act.

<sup>4</sup> Meeting notes from the PMT meeting (July 19, 2001) and Concurrence Point Meetings No. 1 and No. 2 (January 29, 2002) document the concept screening decisions. Planning exhibits and a summary of environmental and operational issues were presented for all five concepts and are available upon request.

\$60,000 to \$75,000 per mobile home, and it is highly likely that the majority of the mobile homes would need to be replaced due to age of the homes and the requirements of the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (49 Code of Federal Regulations [CFR] 24).

The PMT determined that due to the minimized residential impacts and total cost, Alternative A was its technically favored alternative. The DMATS Policy Board<sup>5</sup> was informed of the PMT's decision and had no objections to Alternative A as the favored alternative to be carried forward in this U.S. 20 EA. The participating review agencies also had no objections to this approach.

Based on recommendation by the PMT and the DMATS Policy Board, and consultation with participating review agencies, Alternative A is the preferred alternative. Therefore, the remainder of this U.S. 20 EA (the Project) focuses on the preferred alternative.

### **C. DESCRIPTION OF THE PREFERRED ALTERNATIVE**

The preferred alternative is an 8-mile four-lane divided highway facility with a typical 50-foot median and includes the area on U.S. 20 from the existing Sundown Road interchange (that serves Peosta) through the existing signalized Northwest Arterial intersection. A freeway facility with a mainline design speed of 70 miles per hour (mph) is proposed from Peosta through the proposed Seippel Road interchange. The design speed is the maximum speed at which drivers can maintain a safe level of vehicle control on a particular section of highway under the conditions for which the highway was designed. Posted speed would likely be between 55 and 65 mph.

Access to the freeway would be allowed by interchange access only. Existing residential, farmstead, and commercial driveways would be rerouted to proposed interchanges by the use of frontage and access roads. In general, it is desirable to provide a minimum 2-mile spacing for freeway interchanges in rural areas and a 1-mile spacing for interchanges in urban areas. Given the suburban nature of the Study Area, a desirable minimum interchange spacing of 1.5 miles was used for the Project.

The freeway is proposed to provide consistency on U.S. 20 from the existing Sundown Road interchange to the proposed Seippel Road interchange. The proposed freeway would eliminate at-grade intersections and direct business, farmstead, and residential access to U.S. 20, thereby substantially improving facility safety by reducing the number of conflict points on U.S. 20. The freeway would also increase the roadway capacity to serve the projected Year 2030 traffic volumes, providing a free-flow highway on U.S. 20 consistent with regional U.S. 20 improvements made west of the Study Area.

East of the future Seippel Road interchange, partial U.S. 20 reconstruction is proposed to provide transition on U.S. 20 from the freeway facility to the existing at-grade signalized arterial. A mainline design speed of 60 mph is proposed in this transitional area.

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<sup>5</sup> The DMATS Policy Board consists of elected officials from the Dubuque area and the Project Technical Committee, consisting of technical staff representatives from the City, the County, the East Central Intergovernmental Association, and Iowa DOT.

Typical cross sections for the mainline, frontage, and access roads are shown in Figure IV-1. The Project includes re-grading the shoulders and side slopes to bring the roadway up to current safety standards for vehicles that may run off the highway. No recreational trails for bicycle or pedestrian traffic are planned as part of the Project.

For purposes of describing the preferred alternative, the Study Area is divided into five sections:

- Sundown Road Interchange
- Cox Springs Road to Cottingham Road
- Cottingham Road to Landfill Road
- Landfill Road to Old Highway Road
- Old Highway Road to Northwest Arterial

The following describes each of these sections.

### **1. Sundown Road Interchange**

The interchange at Sundown Road, shown in Figure IV-2, currently provides access to U.S. 20 for Peosta. Based on a traffic capacity analysis of Year 2030 peak hour traffic projections, the existing rural diamond interchange would continue to provide acceptable traffic operations. The intersections of Sundown Road with the on and off ramps may require traffic signalization in the future, but geometric improvements are not expected to be necessary. The preferred alternative includes re-grading the U.S. 20 shoulders and side slopes east of the interchange to meet current safety standards. The existing mainline and ramp paving are in good condition, and full reconstruction in this area is not required.

### **2. Cox Springs Road to Cottingham Road**

Existing and projected future traffic and interchange spacing were considered in evaluating potential interchange locations in this section of the Study Area. Initially, Cox Springs Road and Thunder Hills Road were both considered for potential interchange locations. Based on considerably higher existing and projected traffic at the intersection of Thunder Hills Road and U.S. 20 and considering interchange spacing requirements, an interchange is proposed at Thunder Hills Road, as shown in Figure IV-2.

The proposed interchange at Thunder Hills Road would provide access to Cox Springs Road and would require the reconstruction of approximately 7,400 feet of U.S. 20. Mainline pavement reconstruction would be necessary to meet design requirements for sight distance at interchange off ramps. The reconstruction would involve lowering the mainline profile approaching the off ramps to increase the distance and time a driver has to see the exit ramp and then decide whether to exit off U.S. 20 at this interchange. Lowering the mainline profile would require the construction of three sections of retaining wall to minimize impacts to farmsteads near Cox Springs Road and southeast of the proposed interchange. A rural diamond interchange configuration is proposed, with frontage or access roads to serve the properties in the vicinity of the interchange and to provide connectivity from Cox Springs Road and Thunder Hills Road. A farmstead in the

southwest quadrant of the proposed interchange would be impacted. Stop sign traffic control would be required at the ramp terminal and frontage road intersections.

The preferred alternative would have access roads providing connectivity from Thunder Hills Road and Cox Springs Road north and south of U.S. 20. These access roads would provide access to existing properties on Cox Springs Road that would lose direct access to U.S. 20 as a result of the preferred alternative. The access roads would generally run parallel to U.S. 20 and the proposed ramps. To minimize impacts to Whitewater Creek and improve compatibility with future land use plans, a one-quarter mile separation is provided between U.S. 20 and the north side access road. Refer to Figure IV-2 for the proposed alignment and identified displacements and floodplain impacts associated with the preferred alternative.

### **3. Cottingham Road to Landfill Road**

Refer to Figures IV-3 and IV-4 in Chapter IV for the preferred alternative in this section of the Study Area. Based on the interchange spacing, traffic projections, and terrain, it was determined that potential interchange locations at Cottingham Road and Landfill Road were not viable. An interchange was also considered at North Cascade Road but was not viable based on the socioeconomic effects and the cost of fully impacting the Lost Canyon Mobile Home Park.

The preferred alternative would consist of constructing a rural diamond interchange at Swiss Valley Road with frontage road connections to Cottingham Road, North Cascade Road, and existing properties east of North Cascade Road. Stop sign traffic control would be required at the ramp terminal and frontage road intersections.

The alignment of U.S. 20 in this section of the Study Area would be shifted by as much as 250 feet to the north in the vicinity of Swiss Valley Road to minimize interchange ROW impacts and to improve the mainline geometry in the vicinity of the off and on ramps. This would require the reconstruction of U.S. 20 from approximately 750 feet east of Cottingham Road to approximately 1,800 feet west of Landfill Road. The existing raised-curb median east of Swiss Valley Road would be removed as part of the reconstruction, and the proposed roadway would have a 50-foot grass median through this section of the Study Area. To fit the rural diamond interchange into the surrounding terrain and minimize commercial displacements, the spacing between the ramp and frontage road intersections with Swiss Valley Road are reduced from the typical 500-foot spacing to 350-foot spacing north of the interchange.

Area residents, farmsteads, and businesses would be able to access their properties by using frontage roads on either side of U.S. 20. Because this alternative would sever the U.S. 20 cross access for Cottingham Road, the frontage road on the north side would link Cottingham Road with the proposed interchange. This frontage road would continue to run northeasterly to provide access to properties along U.S. 20, including several farmsteads, a nursery, and the Lost Canyon Mobile Home Park.

On the south side of U.S. 20, the frontage road would connect the fragment of North Cascade Road west of Swiss Valley Road to the existing intersection of North Cascade Road and U.S. 20. This proposed North Cascade Road connector would serve as a backage road for the existing commercial businesses south of U.S. 20 and east of

Swiss Valley Road while providing 600-foot intersection spacing to the ramp terminal intersection and also providing access from North Cascade Road to the proposed interchange. A second frontage road would intersect the North Cascade Road connector and provide access to properties on the south side of U.S. 20 east of North Cascade Road that would lose direct access to the highway. The design speed for the frontage roads is between 45 and 55 mph.

#### **4. Landfill Road to Old Highway Road**

In the Study Area section from Landfill Road to Old Highway Road, several interchange locations are proposed in the vicinity of Seippel Road, as shown in Figure IV-4. The Seippel Road interchange is part of the Southwest Arterial (Iowa 32) Environmental Assessment. In cooperation with the Iowa DOT, the City and the County are managing the remaining study work necessary to complete the environmental assessment for this project. The Seippel Road interchange would serve as the north terminus of the Southwest Arterial project and would enhance the access from the Seippel Road industrial area north of U.S. 20 to U.S. 20 and Southwest Arterial. The Southwest Arterial project would include a full interchange with access road connections to the west to provide access to agricultural land and existing businesses.

Two different interchange configurations at U.S. 20 are being studied as part of the Southwest Arterial project. The type of interchange was not finalized at the time this document was authored; therefore, this document shows both potential interchange alternatives. For informational purposes only, both interchange configurations and the accompanying frontage road system are shown in Figure IV-4. For clarity, a different color scheme is used to differentiate Southwest Arterial and U.S. 20 improvements.

It is anticipated that the Southwest Arterial project would be constructed prior to this section of the Project. This is due to the increased funding availability for the Southwest Arterial project compared to the Project. In addition, this section has the lowest priority for construction in relation to the other sections discussed in this chapter and would be the last section to be constructed once funding becomes available. In the event that this section is constructed prior to the Southwest Arterial project, all impacts associated with the interchange at Seippel Road and access roads required for the Project would still be covered for NEPA compliance in the Southwest Arterial Addendum to the 1999 Environmental Assessment. This document is being developed along the same time frame as this U.S. 20 EA, and the finalization of both NEPA documents is anticipated in advance of construction of either project. Therefore, the impacts will be known and disclosed in an approved NEPA document regardless of which project is constructed first.

The preferred alternative provides full compatibility with the proposed Southwest Arterial improvements. The preferred alternative would extend the access road system proposed for the Southwest Arterial project on both sides of U.S. 20 southwest to Landfill Road, providing access to the Dubuque County Landfill, the Barrington Lakes Subdivision, and several additional properties that currently have direct access to U.S. 20.

To provide reasonable vertical grades, minimize ROW impacts on buildings, and improve constructability, the horizontal alignment of the access roads has been designed to follow the existing terrain. The access road north of U.S. 20 would provide a backage

road to the existing businesses between Landfill Road and Cousins Road and would connect the Dubuque County Landfill and U.S. 20. South of U.S. 20, the access road alignment generally would follow the north bank of the tributary of South Fork Catfish Creek and tie into the Barrington Lakes Subdivision directly across from Barrington Lake, which would have an impact on the privately owned subdivision tennis courts. No ROW impacts on buildings are anticipated in this section.

### **5. Old Highway Road to Northwest Arterial**

As part of the Southwest Arterial project, a frontage road would be constructed west of Old Highway Road to provide access to properties south of U.S. 20. This frontage road would tie into the south leg of the existing U.S. 20 and Old Highway Road signalized intersection.

In the transitional section east of the Seippel Road interchange, U.S. 20 gradually changes from a freeway to a signalized arterial with at-grade intersections. The preferred alternative would provide additional intersection capacity, as shown in Figure IV-5. Partial reconstruction of the north side of U.S. 20 is proposed to provide additional traffic capacity for the signalized intersections at Old Highway Road and Northwest Arterial. Reconstruction of westbound through lanes would begin approximately 650 feet west of the intersection of U.S. 20 with Old Highway Road and would continue to 750 feet beyond the intersection of U.S. 20 and Northwest Arterial. Dual left-turn lanes would be added at the Old Highway Road and Northwest Arterial signalized intersections to improve the LOS during peak traffic periods.

### **D. SUMMARY OF IMPACTS**

Table IV-1 summarizes the impacts associated with the preferred alternative. For a detailed description of these impacts, refer to Chapter V, Project Impacts.

TABLE IV-1  
SUMMARY OF IMPACTS

Resource	Impact
Wetlands <sup>1</sup> (acres)	1.5
Waterways <sup>1,2,3</sup> (feet)	2,350
Forested Riparian Areas (acres)	15
Fill in Floodplain (acres)	25
Prime Farmland (acres)	53.2
Sensitive Noise Receiver Impacts	
Residential <sup>4</sup>	21
Commercial <sup>5</sup>	0
Cultural Resources	
Intensive Architectural/Historical Studies	
• Section 106 Eligible	0
• Section 106 and Section 4(f) Eligible	0
Phase I Archaeological Study	
• Potentially Section 106 Eligible <sup>6</sup>	1
• Section 106 and Section 4(f) Eligible	0
Potential Hazardous Material Locations	2
Right-of-Way Impacts	
Right-of-Way (acres)	275
Displacements and Relocations	
Residential	3
Residential – mobile homes	0
Farmsteads	3
Businesses	6
ROW Acquisition Costs	\$13.6 million
Construction Cost	\$21.7 million

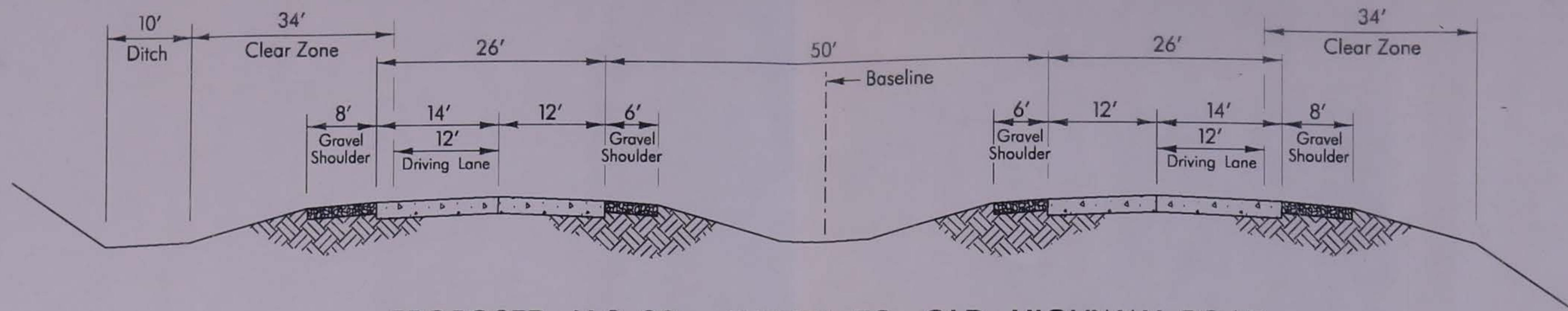
## Notes:

- <sup>1</sup> Jurisdiction will be determined by the U.S. Army Corps of Engineers.
- <sup>2</sup> Stream length impacts are based on preliminary culvert layouts.
- <sup>3</sup> Waterways are determined by the presence of a definable bed and bank.
- <sup>4</sup> A residential impact is when noise levels approach (within 1 dBA, or 66 dBA) or exceed the Noise Abatement Criteria of 67 dBA.
- <sup>5</sup> A commercial impact is when noise levels approach (within 1 dBA, or 71 dBA) or exceed the Noise Abatement Criteria of 72 dBA.
- <sup>6</sup> This location is potentially eligible based on the Phase I Archaeology study. Final eligibility will be determined based on the results of a Phase II Archaeology investigation.

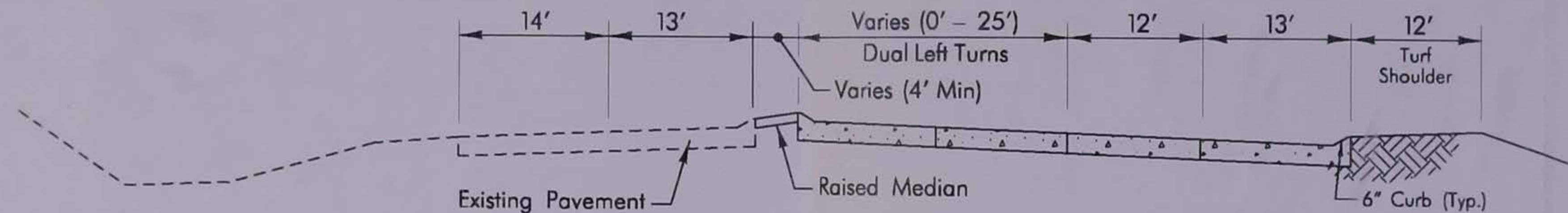
## Sources:

- HDR. Field Survey and Wetland Delineation. Fall 2001.
- HDR. Forested Riparian Areas – Digitized from 1999 aerial photography. 2002.
- HDR. Noise Study Report. January 2003.
- IIV Engineers and Surveyors, P.C. Phase I Environmental Site Assessment, U.S. 20 Corridor from Devon Drive, Dubuque to Peosta. October 2002.
- Nash, Jan Olive et al. U.S. 20 Capacity Improvement Study – Peosta to Devon Drive - West Section: Peosta through the Northwest Arterial Intersection. Volume I: Intensive Level Historical and Architectural Survey. October 2002.
- National Flood Insurance Program, Flood Boundary and Floodway map, County of Dubuque, Iowa. 1983, 1989.
- Tallgrass Historians. Draft Phase I Archaeological Study. January 2003.
- USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa – Ill, 1966, Photorevised 1972.

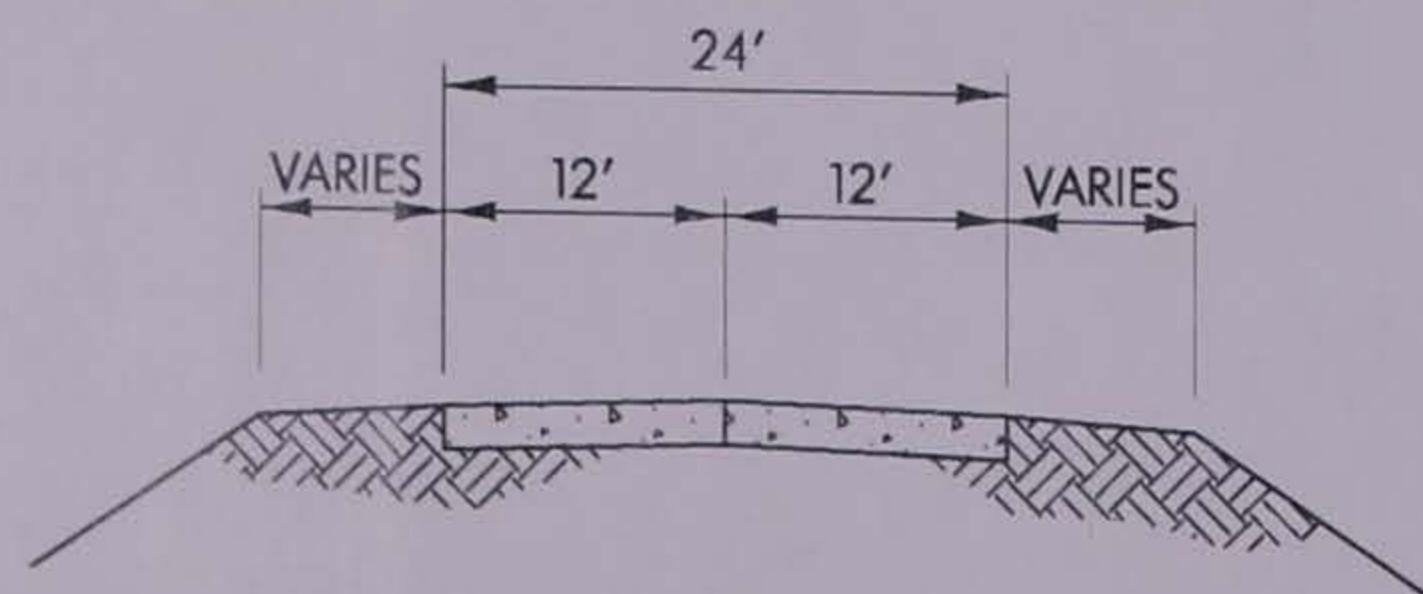




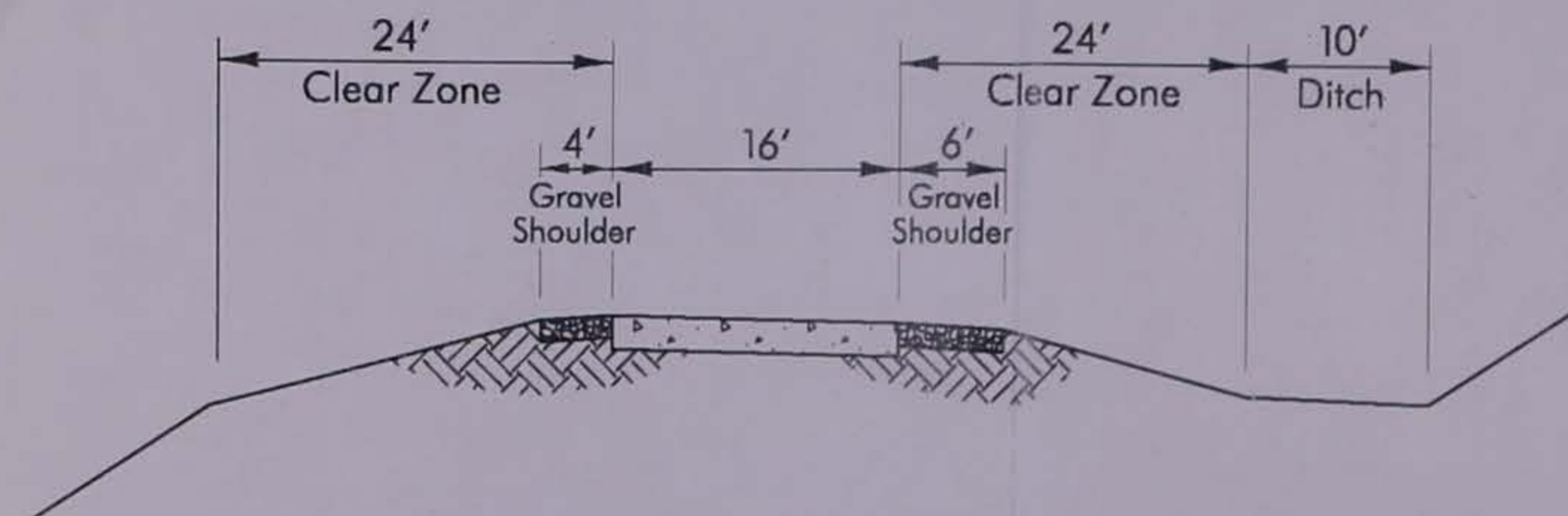
**PROPOSED U.S. 20 - PEOSTA TO OLD HIGHWAY ROAD**



**PROPOSED U.S. 20 - OLD HIGHWAY ROAD TO NORTHWEST ARTERIAL**

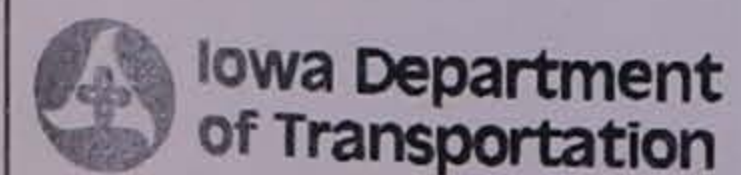


**PROPOSED SIDEROADS AND CIRCULATION ROADS**



**PROPOSED RAMPS**

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE



**TYPICAL CROSS SECTIONS**

U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa



Date  
October 2003

Figure  
IV-1

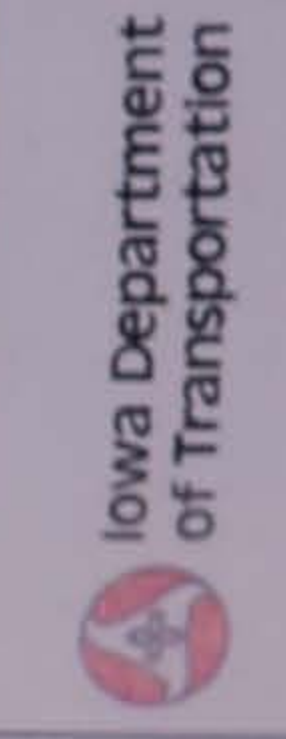


**LEGEND**

- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- ANTICIPATED CONSTRUCTION IMPACTS
- ANTICIPATED BUSINESS IMPACTS
- ANTICIPATED FARMSTEAD IMPACTS
- ANTICIPATED FARMSTEAD PARTIAL IMPACTS
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE
- TRAFFIC SIGNAL LOCATION
- STOP SIGN LOCATION
- PREDICTED 60 DBA NOISE CONTOUR
- NOISE RECEIVER WITH ID NUMBER
- PROPERTY LINE
- CITY CORPORATE LIMITS
- FEMA FLOODPLAIN LIMITS
- STUDY AREA BOUNDARY

Sources:  
 1. Aerial Photography - Dubuque County, Iowa, 2000  
 2. Concept - HDR Engineering, June 2003  
 3. Property Parcel - Dubuque County, Iowa, September 2002  
 4. National Flood Insurance Program - Flood Boundary and Floodway Map, Dubuque County, Iowa, 1983 and 1989

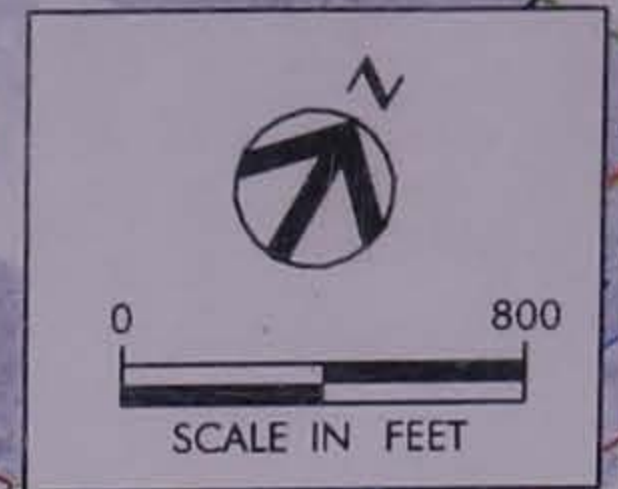
**PREFERRED ALTERNATIVE**  
 Sundown Road to Thunder Hills Road  
 U.S. 20 Capacity Improvement Study  
 Dubuque County, Iowa



**PRELIMINARY PLAN**  
 NOT FINAL - SUBJECT TO CHANGE

Date  
 October 2003  
 Figure  
 IV-2



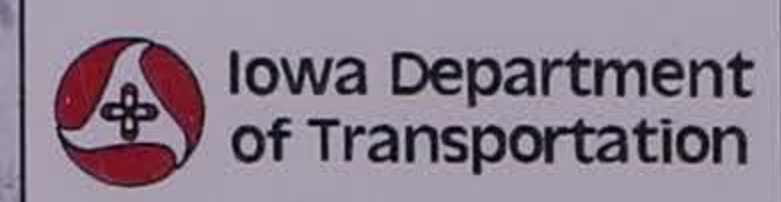


**LEGEND**

- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- ANTICIPATED CONSTRUCTION IMPACTS
- ANTICIPATED BUSINESS IMPACTS
- ANTICIPATED FARMSTEAD IMPACTS
- ANTICIPATED FARMSTEAD PARTIAL IMPACTS
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE
- TRAFFIC SIGNAL LOCATION
- STOP SIGN LOCATION
- PREDICTED 66 dBA NOISE CONTOUR
- NOISE RECEIVER WITH ID NUMBER
- PROPERTY LINE
- CITY CORPORATE LIMITS
- FEMA FLOODPLAIN LIMITS
- STUDY AREA BOUNDARY

- Sources:
1. Aerial Photography - Dubuque County, Iowa, 2000
  2. Concept - HDR Engineering, June 2003
  3. Property Parcel - Dubuque County, Iowa, September 2002
  4. National Flood Insurance Program - Flood Boundary and Floodway Map, Dubuque County, Iowa, 1983 and 1989

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE



**PREFERRED ALTERNATIVE**  
Cottingham Road to North Cascade Road  
U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa



Date  
October 2003

Figure  
IV-3

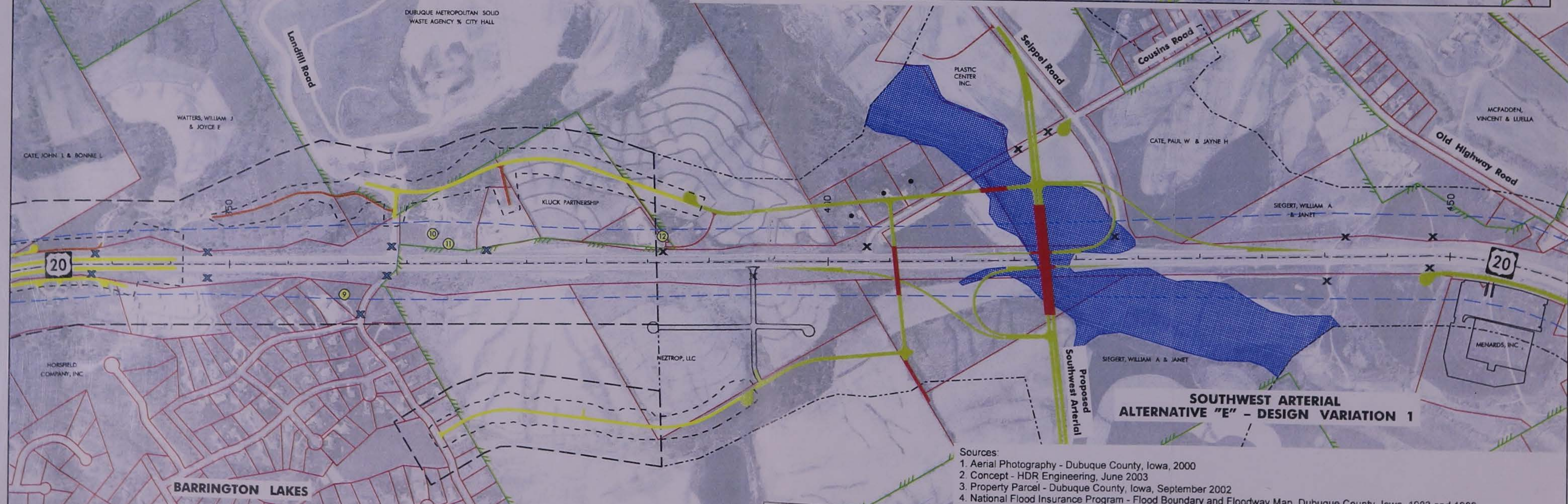
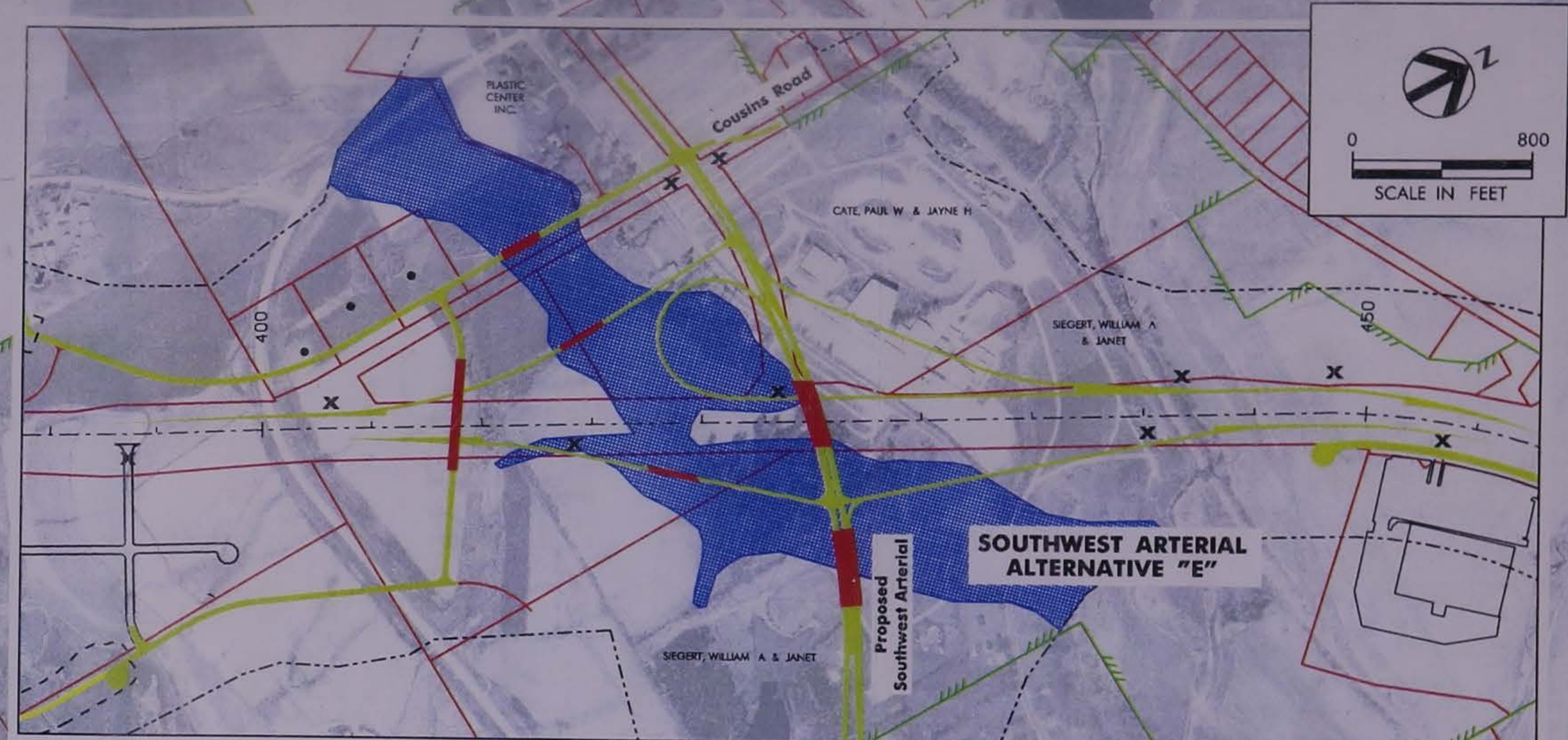
**LEGEND**

- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- ANTICIPATED CONSTRUCTION IMPACTS
- ANTICIPATED BUSINESS IMPACTS
- ANTICIPATED FARMSTEAD IMPACTS
- ANTICIPATED FARMSTEAD PARTIAL IMPACTS
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE
- TRAFFIC SIGNAL LOCATION
- STOP SIGN LOCATION
- PREDICTED 65 dBA NOISE CONTOUR
- NOISE RECEIVER WITH ID NUMBER
- PROPERTY LINE
- CITY CORPORATE LIMITS
- FEMA FLOODPLAIN LIMITS
- STUDY AREA BOUNDARY

**PROPOSED SOUTHWEST ARTERIAL**

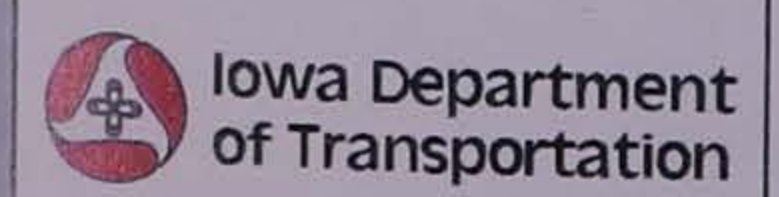
- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- STUDY AREA BOUNDARY
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE

0 800  
SCALE IN FEET



- Sources:
1. Aerial Photography - Dubuque County, Iowa, 2000
  2. Concept - HDR Engineering, June 2003
  3. Property Parcel - Dubuque County, Iowa, September 2002
  4. National Flood Insurance Program - Flood Boundary and Floodway Map, Dubuque County, Iowa, 1983 and 1989

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE



**PREFERRED ALTERNATIVE**  
Landfill Road to Seippel Road  
U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa



Date  
October 2003

Figure  
IV-4



**LEGEND**

- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- ANTICIPATED CONSTRUCTION IMPACTS
- ANTICIPATED BUSINESS IMPACTS
- ANTICIPATED FARMSTEAD IMPACTS
- ANTICIPATED FARMSTEAD PARTIAL IMPACTS
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE
- TRAFFIC SIGNAL LOCATION
- STOP SIGN LOCATION
- PREDICTED 66 dBA NOISE CONTOUR
- NOISE RECEIVER WITH ID NUMBER
- PROPERTY LINE
- CITY CORPORATE LIMITS
- FEMA FLOODPLAIN LIMITS
- STUDY AREA BOUNDARY

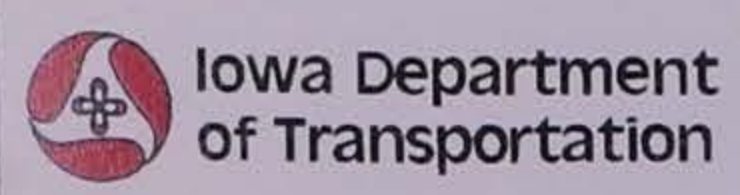
**PROPOSED SOUTHWEST ARTERIAL**

- PROPOSED PAVEMENT
- PROPOSED GRANULAR SURFACE
- PROPOSED BRIDGE
- STUDY AREA BOUNDARY
- ANTICIPATED RESIDENTIAL IMPACTS
- PROPOSED ROAD CLOSURE



- Sources:
1. Aerial Photography - Dubuque County, Iowa, 2000
  2. Concept - HDR Engineering, June 2003
  3. Property Parcel - Dubuque County, Iowa, September 2002
  4. National Flood Insurance Program - Flood Boundary and Floodway Map, Dubuque County, Iowa, 1983 and 1989

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE



**PREFERRED ALTERNATIVE**  
Old Highway Rd. to North Crescent Ridge Rd.  
U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa



Date  
October 2003  
Figure  
IV-5

## CHAPTER V PROJECT IMPACTS

This chapter addresses long-term impacts on the socioeconomic and natural environment as well as short-term impacts related to construction activities. In addition, indirect and cumulative impacts associated with the preferred alternative are evaluated. The potential impacts are for the preferred alternative.

Some commonly addressed issues of an impact analysis for a NEPA document are not relevant in the Study Area and are therefore discussed briefly below and then dismissed from discussion in the remainder of this chapter:

- Air Quality

The preferred alternative would have no significant impact on air quality. Transportation conformity rules<sup>1</sup> apply in areas designated nonattainment or that have a maintenance plan for transportation-related criteria pollutants (40 CFR 93.102). The Study Area is located in an attainment area for all criteria pollutants, and no maintenance plan is in effect (Iowa Department of Natural Resources [Iowa DNR], March 29, 2001). Therefore, the transportation conformity rules do not apply.

Furthermore, one of the purposes of the preferred alternative is to provide additional roadway capacity. This would improve the LOS at all existing intersections with U.S. 20. An improved LOS would result in better traffic flow and fewer idling vehicles at intersection locations. This should be beneficial from a vehicle emission standpoint at localized intersections.

Construction-related air quality impacts are discussed in Section M, Construction.

- Environmental Justice

The preferred alternative would have no significant impact on Environmental Justice (EJ) populations. To comply with the regulations of Title VI of the 1964 Civil Rights Act and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, the potential environmental impacts of the preferred alternative were studied with respect to the demographic and socioeconomic composition of the Study Area. U.S. Census Bureau Census 2000 data, the most recent data available, were used for this analysis. To adequately evaluate any "significant" or "disproportionate" impacts of the preferred alternative on minority populations and low-income populations, analysis at the block level, the smallest level of aggregation of census data, was conducted.

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<sup>1</sup> Transportation conformity is required by the Clean Air Act to ensure that Federally supported highway and transit project activities are consistent with ("conform to") the purpose of a state air quality implementation plan (SIP). If an area does not meet the U.S. Environmental Protection Agency (EPA) air quality standards for any one of the criteria pollutants, it is designated a nonattainment area.

The Census 2000 data did not indicate that an EJ population exists within the Study Area. Additional data was obtained for the Lost Canyon Mobile Home Park, and it was determined that EJ populations are not present.

Overall, the racial composition within the Study Area is less diverse than the nonwhite population in the City and the County in 2000. In terms of racial characteristics, residents in the Study Area are primarily white. This analysis was also performed at the block group level (a smaller sample area) with similar results. In relation to City and Countywide household income averages, the demographics are proportionate across all income groups, so no low-income EJ population exists in the Study Area. In relation to vulnerable age group composition,<sup>2</sup> there are slightly fewer members of vulnerable age groups present in the Study Area than exist elsewhere in the City or the County. Because racial composition, household income distribution, and age composition within the Study Area are comparable to the City and the County, no disproportionate impacts to minority or low-income populations would occur. A technical memorandum documenting the EJ analysis (HDR Engineering, October 2003) is available from the Iowa DOT upon request.

- Threatened and Endangered Species

Informal consultation was initiated for the presence of threatened and endangered species that are protected under the Endangered Species Act of 1973, as amended. Consultation was performed with the U.S. Fish & Wildlife Service (USFWS) and Iowa DNR. Two species are listed as threatened (bald eagle and northern monkshood) and one as endangered (Iowa Pleistocene snail) for this geographic region (USFWS, June 12, 2001). However, based on the specific preferred alternative location and associated impacts, USFWS issued a statement of no objection to the preferred alternative (USFWS, January 6, 2003). Further, Iowa DNR did not recommend further field studies, and their records did not show rare species or significant natural communities in the Study Area (Iowa DNR, March 21, 2001). Therefore, the preferred alternative would not impact any protected species.

- Wild and Scenic Rivers

There are no designated Wild and Scenic Rivers within the Study Area. Therefore, the preferred alternative would not impact wild and scenic rivers.

## A. SOCIAL AND ECONOMIC IMPACTS

This section addresses the potential impacts on the social and economic character of the Study Area. Commercial and small business development is located along the east end of the Study Area, starting at Swiss Valley Road and heading northeast along U.S. 20 to the existing signalized Northwest Arterial intersection. Proceeding from Swiss Valley Road west

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<sup>2</sup> Vulnerable age group composition includes children under the age of 18 and citizens over the age of 65.

to Sundown Road, the Study Area consists predominantly of rural residential homes, farm buildings, and agricultural land used for row crop production.

## 1. Demographics

The Study Area is primarily rural in character, with the majority of the Study Area outside the City limits. Table V-1 summarizes the 1990 and 2000 populations of the State, County, City, and Study Area by block group. In 2000, the total population of the County increased slightly. The City's population remained essentially unchanged. Of the five block groups, block group 3, census tract 010200 had the largest population at 2,019, an increase of 852 persons or 5.6 percent from 1990. Refer to Figure V-1 for a map indicating the census tracts and block groups. Overall, the population in the Study Area increased by 23 percent. This reflects the growth occurring in the Study Area.

**TABLE V-1  
POPULATION DATA IN STUDY AREA, 1990-2000**

Area	1990	2000	Annual Growth Rate 1990-2000
State of Iowa	2,776,755	2,926,324	0.5 %
Dubuque County	86,403	89,143	0.3 %
City of Dubuque	57,546	57,686	0.02 %
Study Area			
Block Group 4, Census Tract 001203	830	1,168	3.5 %
Block Group 2, Census Tract 010102	1,779	1,287	-3.2 %
Block Group 3, Census Tract 010102	933	1,336	3.7 %
Block Group 3, Census Tract 010200	1,167	2,019	5.6 %
Block Group 1, Census Tract 010300	502	607	1.9 %
Total	5,211	6,417	2.1 %

Source: U.S. Census Bureau, 1990 and 2000 Census of Population and Housing, Summary File 1.

## 2. Tax Base

The preferred alternative would primarily affect two components of the local tax base: property taxes and sales tax.

### a. Property Taxes

The Project would lead to adverse impacts associated with a public agency purchasing ROW for the preferred alternative. Land would be removed from the tax base, and local jurisdictions would lose a small portion of their property tax revenues. Property taxes were considered for agricultural land, farmsteads, and residential and commercial properties.

- Agricultural – Of the 275 acres of ROW required for the preferred alternative, approximately 230 acres are currently in agricultural production. However, it is assumed that the relocation of the farmsteads and commercial structures would result in the conversion of the remaining 45 acres of farmland. Therefore, property tax



impacts were calculated based on 275 acres. The adjusted market value of agricultural land is \$600 per acre. Agricultural land is taxed at approximately \$15 per acre annually (Dubuque County Assessor's Office, January 16, 2003). This amounts to an annual tax revenue loss of about \$4,125. This revenue loss would be small in relation to total budgets of local governmental bodies, including Dubuque County, local townships, local school districts, and other small entities.

- Farmsteads – Impacted farmsteads are assumed to be relocated in the County and thus would not have an impact on property tax revenues.
- Residential – Impacted residential dwellings are assumed to be relocated in the County/City limits and thus would not have an impact on property tax revenues.
- Commercial – Commercial businesses are assumed to be relocated in the County/City limits and thus would not have an impact on property tax revenues.

#### **b. Sales Tax**

The preferred alternative would lead to the displacement of six businesses. These businesses include a trucking company, a propane gas supplier, a paving contractor, and a water conditioning business. The decrease in sales tax revenues generated from these businesses would be insignificant because the businesses are expected to relocate in the area. This would simply redistribute sales in the area and therefore would not decrease sales tax revenues.

Overall, the tax base impacts associated with the preferred alternative would be small in relation to total tax revenue. Therefore, the Project would not have a significant impact on the tax base.

### **3. Acquisition of Right-of-Way**

Based on conceptual design efforts, the preferred alternative would require approximately 275 acres of new roadway ROW. The cost for acquiring this new ROW is estimated at \$13.6 million.

### **4. Displacements and Relocations**

The ROW acquisition would result several displacements and relocations. These are shown in Table V-2 as well as in Figures IV-2 through IV-5 in Chapter IV.

#### **5. Noise**

FHWA has developed Noise Abatement Criteria (NAC) and procedures to be used in the planning and design of highways. These criteria and procedures are set forth in 23 CFR 772.

A noise study performed as part of the U.S. 20 EA, identified current noise levels in the study area. The study also considered the impacts of new highways and roadway interchange relative to the U.S. 20 EA. A weighted decibel (dBA) for road noise was calculated and 72 dBA was determined as the design noise level. The design noise level is based on the U.S. 20 EA design noise level.

**TABLE V-2  
RIGHT-OF-WAY IMPACTS**

Impacts	Preferred Alternative
Displacements <sup>1</sup> & Relocations <sup>2</sup>	
• Residences	3
• Farmsteads	3
• Businesses	6
• Partial take (Farmstead)	1
Total Impacts	13

*Notes:*

<sup>1</sup> Displacement is the physical removal of residential and commercial structures to allow construction of the preferred alternative.

<sup>2</sup> Relocation is the process of finding safe, affordable housing for residents whose homes are displaced and assisting displaced businesses in finding suitable locations for their enterprises.

Mitigation of these impacts would be accomplished through the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (UA), as amended. The UA ensures uniform and equitable treatment of all persons displaced from their residences, businesses, or farmsteads as a result of a Federally funded project. This includes just compensation for such acquired properties (42 United States Code [USC] 4601 et seq., as amended, 1989).

In addition, the policy of Iowa DOT is that persons displaced from their property shall receive uniform and equitable treatment and not disproportionately bear the impacts of a project that is intended to provide benefits to a larger group of people. Iowa DOT has programs and policies that enforce the UA, as amended, such as an early acquisition program to assist individuals who meet certain hardship criteria and policies to ensure comparable (equal or better) housing for residential relocations (42 USC 4601 et seq., 1989).

Individuals displaced from their residences, whether owners or tenants, are eligible for relocation assistance advisory services and moving payments. Iowa DOT employs relocation assistance agents to explain all available options. Replacement housing payments and reimbursement for certain expenses incurred while purchasing replacement housing are determined upon review of each relocation and the eligibility of the displaced individual. The goal is to find equal or better housing for all who are relocated (42 USC 4601 et seq., 1989).

**5. Noise**

FHWA has developed Noise Abatement Criteria (NAC) and procedures to be used in the planning and design of highways. These criteria and procedures are set forth in 23 CFR 772.

A noise study, performed as part of this U.S. 20 EA, identified current noise levels in the Study Area. The study also quantified the impacts of new alignments and roadway interchanges relative to the NAC noise level of 67 A-weighted decibels (dBA) for residential dwellings and 72 dBA for commercial uses, both on an energy-equivalent sound level ( $L_{eq}$ ) basis. The  $L_{eq}$  descriptor is reliable for low-volume as well as high-volume roadways, in

most instances is simple for highway designers to use, and is flexible in terms of allowing noise levels from different sources to be included in the analysis of the total ambient noise.

Traffic noise levels were estimated using "peak hour" noise levels based on forecasts of design year 2030. The guidelines set forth by Iowa DOT and FHWA indicate a significant noise impact when:

- The predicted noise levels at an adjacent sensitive receiver approach or exceed FHWA's NAC of 67 dBA for residences and 72 dBA for commercial receivers. Approaching is defined as coming within 1 decibel (that is, 66 dBA for residences or 71 dBA for commercial receivers) of the NAC.
- The predicted increase in noise levels at an adjacent sensitive receiver approaches or exceeds 10 dBA. Approaching is defined as coming within 1 decibel (that is, a change of 9 dBA) of the 10 dBA.

**a. Noise Prediction**

Table V-3 lists all the predicted impacted noise-sensitive receivers where noise levels are predicted to approach or exceed the NAC in 2030 due to impacts of the preferred alternative. The table includes the computed noise levels in hourly  $L_{eq}$  dBA for the existing year (2002) and the design year (2030), for both Alternative A and the No-Build Alternative. The computed noise levels are compared to the hourly  $L_{eq}$  dBA NAC approach levels in the 23 CFR 772 guidelines used to determine noise impacts. The impacted receiver ID locations and a developed 66 dBA noise contour can be seen in Chapter IV, Figures IV-2 through IV-5.

**TABLE V-3  
PREDICTED NOISE LEVELS AT IMPACTED RECEIVERS**

Receiver ID	2002 Existing Noise Level	2030 No-Build Noise Level	2030 Build Noise Level	L <sub>eq</sub> Noise Abatement Criteria	Change in Noise Level <sup>1</sup>
	(dBA)				
1	68	71	66	66	-2
2	63	69	67	66	4
3	63	69	67	66	4
4	72	76	70	66	-2
5	71	75	69	66	-2
6	66	70	66	66	0
7	68	71	67	66	-1
8	65	68	69	66	4
9	62	66	66	66	4
10	63	66	66	66	3
11	66	69	69	66	3
12	63	67	67	66	4
13	63	66	66	66	3
14	63	67	67	66	4
15	64	67	67	66	3
16	64	67	67	66	3
17	64	67	67	66	3
18	65	68	68	66	3
19	62	66	66	66	4
20	64	70	70	66	6
21	69	73	73	66	4

Note:

<sup>1</sup> Change in noise level is the difference between build and existing noise levels.

#### b. Summary of Impacts

Table V-4 summarizes the receivers by impact type and year for the preferred alternative. Analysis results predict 21 traffic noise impacts due to the preferred alternative. By comparison, 30 receivers would have an impact in the 2030 No-Build condition.

**TABLE V-4  
SUMMARY OF RECEIVER IMPACTS**

NAC Class	Receiver Types		2002 Existing	2030 No-Build <sup>1</sup>	2030 Build
B	Residential	Meet or Exceed NAC	10	26	15
		Approach NAC	2	4	6
C	Commercial	Meet or Exceed NAC	0	0	0
		Approach NAC	0	0	0

Note:

<sup>1</sup> Some impacted receivers in the 2030 No-Build condition would be displaced under the Build condition and not accounted for as a receiver impact under the 2030 Build condition accordingly.

No receivers exceeded a change of 10 dBA or greater between the existing and the 2030 Build condition.

**c. Noise Abatement Measures**

Noise abatement measures are considered where predicted traffic noise levels approach or exceed the NAC or substantially exceed the existing noise levels. Such is the situation in this case. It should be noted that while the predicted future noise levels for the Build condition approach or exceed the NAC for 21 receivers, the future No-Build noise levels are similar as 30 receivers approach or exceed the NAC. However, any noise level under the Build condition that approaches or exceeds the NAC was considered for noise abatement. Figures IV-2 through IV-5 in Chapter IV indicate the locations of the modeled receivers that approach or exceed the NAC and show the 66 dBA contour line representing the approximate distance next to U.S. 20 where traffic noise impacts are likely to approach (within 1 dBA, or 66 dBA) the NAC of 67 dBA.

Determining the reasonableness and feasibility of noise abatement involves the use of professional judgment to weigh, on a case-by-case basis, the overall benefits of noise abatement against the overall adverse social, economic, and environmental effects of noise abatement.

Currently, Iowa DOT considers a barrier feasible if it can be constructed to provide a minimum noise level reduction (insertion loss) of 5 dBA at the sites predicted to approach or exceed the NAC. In addition, Iowa DOT considers the cost of a barrier to be reasonable if the cost per benefited receiver is no more than \$20,000.

The following abatement measures were considered:

- **Buffer Zones:** Buffer zones are undeveloped, open spaces that border a highway. Buffer zones are created when a highway agency purchases land or development rights, in addition to the normal ROW so that future dwellings cannot be constructed close to the highway. This prevents the possibility of constructing dwellings that would otherwise have an excessive noise level from nearby highway traffic. An additional benefit of buffer zones is that they often improve the roadside appearance.

Creating a buffer zone is not reasonable for the preferred alternative due to the tremendous amount of land that must be purchased and because dwellings already border the proposed alignments.

- *Alteration of Horizontal and Vertical Alignment:* This noise abatement measure can be incorporated into a project to reduce traffic noise impacts where the receivers are typically on one side of the project or where the elevation is relatively constant. Since sound intensity decreases with distance, shifting the centerline away from the receivers may reduce noise levels.

Generally speaking, the local topography is highly variable, so altering the vertical alignment is not a feasible or reasonable option for the preferred alternative. Due to receivers on both sides of the new alignments and due to other constraints, shifting the alignment horizontally would affect other receivers disproportionately and is not a feasible or reasonable option.

- *Traffic Management Measures:* Controlling traffic can sometimes reduce noise problems. For example, trucks can be prohibited from certain streets and roads, or they can be permitted to use certain streets and roads only during daylight hours.

This is not reasonable as this is a U.S. highway that is built to carry all types of vehicles, including heavy commercial vehicles.

- *Acoustical Insulation of Houses:* This noise abatement measure would not affect the noise level violations of Iowa State Noise Standards because these standards are exterior standards. FHWA guidelines and Iowa DOT policy recommend that only noise-sensitive public buildings such as schools and hospitals be considered for acoustical insulation. Therefore, this option is not feasible or reasonable.
- *Noise Barriers:* Noise barriers are considered for mitigating a noise impact on existing buildings. To be effective, a noise barrier must be continuous and have substantial length and height. Noise barriers are not proposed unless a single barrier on a feasible location can effectively reduce traffic noise at several affected residences for a reasonable cost. They typically are not constructed for a single residence.

According to Iowa DOT's policy on "Highway Traffic Noise Analysis and Abatement," noise barriers are feasible when terrain, access, safety, or other physical constraints do not preclude them and where they can provide at least 5 dBA of noise reduction. A reasonable cost per residence benefited is \$20,000 (Iowa DOT, 1997).

Due to cost, noise barriers are generally not constructed for single receivers (Iowa DOT, 1997). As single receivers, noise barriers were, therefore, not considered for receivers 1, 2, 3, 8, 9, and 12.

Barriers were not considered for receivers 19 through 21 as these receiver locations adjacent to Old Highway Road would not allow for a continuously long barrier to achieve a 5 dBA reduction in noise (Iowa DOT, 1997).

Three separate noise barriers were analyzed for the remaining receivers impacted by the preferred alternative. None of the noise barriers were reasonable based on the cost. Refer to Table V-5 for a noise barrier cost analysis.

**TABLE V-5  
NOISE BARRIER COST ANALYSIS**

Barrier Wall	Receivers Designated for Benefit	Insertion Loss (dBA)	Barrier Length (ft)	Average Barrier Height (ft)	Total Cost <sup>1</sup>	Total Number of Impacted Receivers	Number of Benefited Receivers <sup>2</sup>	Cost of Abatement per Benefited Receivers
1	4-7	5.6-8.6	962	16	\$307,840	4	4	\$76,960
2	10, 11	4.5-8.9	877	11.33	\$198,700	2	5	\$39,748
3	13-18	6.1-7.7	1,465	10	\$293,100	6	7	\$41,871

Notes:

<sup>1</sup> Total Barrier Cost is based on a unit cost of \$20.00/ft<sup>2</sup>.

<sup>2</sup> Includes benefits to adjacent receivers not impacted.

## 6. Public Services/Public Facilities

### a. Public Services

Public services within the Study Area include fire protection, paramedic services, and law enforcement. According to the Dubuque County Emergency Management Agency (EMA), the preferred alternative is acceptable for providing emergency services, and eliminating the at-grade intersections between Sundown Road and Northwest Arterial would decrease accidents substantially in this area (Dubuque County EMA, January 28, 2003). Dubuque EMA and the City of Dubuque Fire Department (City of Dubuque Fire Department, January 28, 2003) also offered that consideration be given to installation of the 3M Opticom Pre-emption system, which allows emergency vehicles to override traffic signals, at all signalized intersections. This suggestion is noted and will be considered during design of the Project.

Dubuque EMA indicated that between Sundown Road and Thunder Hills Road, ambulance service would need to be rerouted a longer distance to service the farms and to respond to the north or south of U.S. 20 on Cox Springs Road. Between Cottingham Road and North Cascade Road, emergency services would respond on U.S. 20 from the west. Placing the interchange at Swiss Valley Road and offering frontage roads would not significantly impact emergency response time to new housing developments north of U.S. 20 and locations in the vicinity of North Cascade Road, Lost Canyon Mobile Home Park, and Siegert Lane. Emergency response vehicles would only have a minimum delay in servicing the Cottingham Road area, as the frontage road would allow emergency vehicles to travel west to service this area from U.S. 20 and the Swiss Valley Road interchange.

Dubuque EMA and the City of Dubuque Fire Department prefer the second alternative for the Seippel Road interchange. As noted in Chapter IV, Proposed Alternatives, the Seippel Road interchange is part of the Southwest Arterial project, and to date, an alignment has not been selected.

**b. Public Facilities**

Several communications, power, and gas utilities are located throughout the Study Area. As a result of the preferred alternative, the Enron/Northern Natural Gas Company would require considerable realignment around the Thunder Hills Road and Swiss Valley Road interchange. Other utilities in the Study Area may require temporary relocations during construction; however, most of the infrastructure in the Study Area is for distribution rather than generation or treatment and would not represent a major issue or cost.

In addition, the preferred alternative would require the removal of service to homes and businesses acquired for ROW. Other utility customers in the Study Area would be affected by temporary interruptions of utility service during relocations of utility infrastructure for power, gas, communications, water, and sewer lines.

Northeast Iowa Community College is located adjacent to the ROW at the western end of the Study Area east of Sundown Road. A portion of the College's property would be converted to ROW. Due to the small amount and location of this conversion, the preferred alternative would not impact the College's operations or any plans for expansion.

**c. Mitigation**

Existing residential, farmstead, and commercial driveways would be rerouted to proposed interchanges by the use of frontage and access roads. Because the preferred alternative allows for acceptable public services, no additional mitigation is needed.

Any impacts on utilities by the preferred alternative would be mitigated through utility line relocations. For a discussion of construction impacts, refer to Section M, Construction.

**B. LAND USE**

Land in the Study Area is predominantly agricultural, used for row crops and pastureland. Nearly all of the area that would be affected by the preferred alternative is zoned agricultural, with the exception of the commercial and residential mixed-use properties surrounding the Swiss Valley Road interchange. In addition, commercial and industrial lands are located along U.S. 20 east of Seippel Road to Northwest Arterial.

Current land uses are consistent with zoning requirements and existing land use plans. However, as previously stated in Chapter III, Iowa DOT initiated the Corridor Preservation Zone (the CPZ) to preserve the U.S. 20 corridor, including portions of the Study Area. This process provides a 30-day review period for building permits, subdivision plats, and zoning changes and allows the State to determine whether the proposed changes are compatible with future capacity improvements to the U.S. 20 corridor.

The 2002 Dubuque County Comprehensive Land Use Plan (Comprehensive Plan) indicates that the proposed future land use in the Study Area is primarily rural residential with small strips of commercial and industrial uses along U.S. 20 (East Central Intergovernmental Association, 2002). For the Swiss Valley Road interchange, future land use is planned for



single and multi-family residential, rural residential, and agricultural uses. For the Thunder Hills Road interchange, the northeast corner of the interchange is planned for commercial use while the surrounding areas are rural residential and agricultural uses.

Land use impacts that would result from the preferred alternative are related to the acquisition and relocation of residential housing and businesses. In addition, agricultural land that falls within the ROW would be directly taken out of production. Indirect impacts would pertain to farmland outside of the impact area that is rendered non-farmable because of diagonal severance and interference in land patterns. Examples of these indirect impacts include creation of remnant parts of fields that may be too small to economically farm and limited access to fields.

Direct access to U.S. 20 at Cox Springs Road, Cottingham Road, North Cascade Road, and Landfill Road would be eliminated by the preferred alternative and would reduce short-term development potential at these locations.

The preferred alternative is consistent with the Dubuque County Comprehensive Plan; therefore, no mitigation is needed.

### **C. PUBLIC LANDS**

Public land is defined as any land owned by Federal, State (other than Iowa DOT), or local agencies for public use. There is some public land within the Study Area. A portion of Northeast Iowa Community College property would be taken for ROW for the preferred alternative. The total amount of property taken would be approximately 2 acres. This acquisition is on the southern fringe of the College property and is already adjacent to the ROW of existing U.S. 20. The additional ROW required would not hinder any future development the College may have.

Access to the Dubuque County Landfill would be changed as a result of the preferred alternative. The current access from U.S. 20 would be closed and traffic would be routed through the Seippel Road interchange (as part of the Southwest Arterial project) on a frontage road. This access change has been coordinated with and supported by the Dubuque Metropolitan Solid Waste Agency.

### **D. FARMLAND**

The Farmland Protection Policy Act (7 CFR 658) requires that Federal projects minimize the conversion of farmland to nonagricultural uses. To the extent practicable, state and local farmland policies are to be considered. Specially classified farmlands receive particularly close scrutiny under this act and are addressed in the remainder of this section.

#### **1. Prime Farmland**

The U.S. Department of Agriculture (USDA) defines prime farmland as "land that is either used for food or fiber crops or is available for those crops" (USDA/Soil Conservation Service, 1985). Prime farmland produces the highest yields with the least amount of energy

and economic inputs. The Natural Resources Conservation Service (NRCS) classifies land as prime farmland if it fits specific precipitation, soil temperature, pH, sodium, erosion, and other physical criteria. These lands are considered of the highest quality for agricultural production. Prime farmland is shown in Figure V-2, Other Environmental Impacts.

**a. Affected Land**

Existing land use within the Study Area is primarily farmland. Much of the farmland is planted in row crops, such as corn and soybeans. The preferred alternative would primarily affect Downs silt loam and Fayette silt loam soil types, as well as small areas of Worthen silt loam, Dubuque silt loam, Nordness silt loam, Schapville silt loam, and Orthents loamy soil types. Of these, the Downs silt loam, Fayette silt loam, and Worthen silt loam soil types are listed as prime farmland (USDA/Soil Conservation Service, 1985).

**b. Impacts**

In accordance with the Farmland Projection Policy of 1981, a USDA Farmland Conversion Impact Rating Form (refer to Form AD-1006 in Appendix A, Agency Coordination) was completed for the preferred alternative. A NRCS land evaluation and site assessment was performed, and points are assigned based on the project impact on a particular category. The NRCS land evaluation has a maximum score of 100, and the site assessment has a maximum score of 160. The preferred alternative would convert 230 acres of land in agricultural production, 53.2 acres of which are prime farmland, to roadway ROW. The percentage of farmland this represents within the County is 0.1 percent. The NRCS land evaluation of the preferred alternative farmland is 61. Thirty-eight percent of farmland under NRCS jurisdiction has the same value or higher. The site assessment considers the Project's impacts to site and surrounding farm services (refer to 7 CFR 658.5(b) for site assessment criteria). The total score of the site assessment is 62 points. The combined rating of the land evaluation and site assessment is 123. A rating of 160 points or higher is considered to be a substantial impact.

**c. Mitigation**

Because impacts to farmland would be minimal, mitigation would not be required.

**2. Unique Farmland**

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high-quality and/or large yields of a specific crop when treated and managed according to modern farming methods. Examples of such crops are fruits and vegetables. Farmlands in the Study Area are dedicated to row crop production, hay, and pasture and are not considered unique farmlands.

## **E. VISUAL RESOURCES**

Visual landscape characteristics are objects that are observed and are either natural or manmade. The objects can be given an aesthetic value based on individual human perception or on the contrast between one object and another object or group of objects. Objects affecting aesthetic value can be of a fixed nature (such as traffic signal poles) or intermittent (such as moving vehicles).

The preferred alternative would alter the natural landscape from a rural, agricultural setting to a more built environment. However, with U.S. 20 as an existing highway, most of the impacts would be from the vertical intrusion of the proposed interchanges and frontage roads. As discussed in Chapter IV, the preferred alternative would have new rural diamond interchanges with bridge crossings at Thunder Hills Road and Swiss Valley Road. Access roads would also be added or enhanced. In addition, to a lesser degree, the preferred alternative would bisect agricultural land, and vegetation in the ROW would be removed. Grading, cut, and fill would reduce the contour of the land, although some portions of the highway would be located in relatively low-lying areas.

In summary, the impacts on visual resources in the Study Area would be typical of what is normally associated with this type of highway project. Iowa DOT expects to seed native grasses and forbs within the roadway ROW to increase plant diversity and soften some of the impact.

Construction areas would be reseeded, and most of the roadway would remain as it is. In the area of the new interchanges, little can be done to their intrusion into the viewshed. The remaining impacts are considered minor because of the existing roadway.

## **F. BICYCLE AND PEDESTRIAN FACILITIES**

According to the DMATS 2020 Long Range Transportation Plan (LRTP), U.S. 20 would be considered a barrier to some bicyclists and pedestrian traffic because of steep inclines, safety concerns, and heavy traffic volumes (East Central Intergovernmental Association and DMATS, 2000). Currently, no pedestrian paths exist within the Study Area, and no pedestrian transportation plans were analyzed in the DMATS LRTP. Therefore, there would be no impacts to the existing trail system. In addition, bicycle and pedestrian facilities are not compatible with high-speed freeways and are not proposed for the Project.

## **G. WATER RESOURCES**

The water resources in the Study Area generally consist of intermittent and perennial streams and wetlands. Section H, Wetlands/Waters of the U.S., indicates where these resources are and quantifies the impacts. Impacts to groundwater resources are not anticipated due to limited types of construction activities that would have the potential to impact these resources (major cuts, fills through drainage areas, bridge piles, etc.).

Water quality standards have been set for designated rivers and streams in Iowa under 567 Iowa Administrative Code (IAC) 61.3(455B), Surface Water Quality Criteria. All waters

of the State are classified for protection of beneficial uses. Classified waters include general use segments and designated use segments. General use segments are intermittent watercourses and those watercourses that typically flow only for short periods of time following precipitation in the immediate locality or as a result of discharges from wastewater treatment facilities and whose channels are normally above the water table. These water bodies do not support a viable aquatic community of significance during low flow and do not maintain pooled conditions during periods of no flow (567 IAC 61.3(1)a). Designated use segments are water bodies that maintain flow throughout the year or contain sufficient pooled areas during intermittent flow periods to maintain a viable aquatic community of significance 567 IAC 61.3(1)b).

In the Study Area, South Fork Catfish Creek is a designated use segment classified as Class B Limited Resource Warm Water. This classification is defined as waters in which flow or other physical characteristics limit the ability of the water body to maintain a balanced warm water community. Such waters support only populations composed of species able to survive and reproduce in a wide range of physical and chemical conditions and are not generally harvested for human consumption (567 IAC 61.3(1)b). Water quality requirements for this classification as well as general water quality criteria are detailed in Surface Water Quality Criteria (567 IAC 61.3(455B)). South Fork Catfish Creek is not under protected status in accordance with 567 IAC 72.50(455B), nor are there any other protected streams in the Study Area. U.S. 20 currently bridges this creek. The preferred alternative would not alter the existing roadway or the crossing of South Fork Catfish Creek.

Whitewater Creek is also located in the Study Area. U.S. 20 crosses Whitewater Creek in two locations between Thunder Hills Road and Cox Springs Road. South of U.S. 20 west of Thunder Hills Road, Whitewater Creek has been tiled and no longer supports surface water flows east of this location within the Study Area except during storm events. Whitewater Creek has no designation under 567 IAC 61.3(455B).

The roadway drainage would be conveyed through open ditches to the existing surface water drainages. The roadside ditches would be vegetated and stabilized, which would provide opportunities for the runoff to infiltrate, reduce the velocities, and minimize any increases in sediment. Minor increase in impervious surfaces would occur from the addition of access roads, frontage roads, and interchanges. New or additional lanes are not being added as a part of the preferred alternative. The minor increase in impermeable area should not create any water quality impacts.

Sodium chloride (salt) is used for ice control on Iowa DOT highways when icy conditions exist. Iowa DOT's policy and practice is to not place salt for ice control indiscriminately. Iowa DOT personnel are advised to use minimal amounts of ice control materials to reduce the possible adverse effects of salt usage. Effects from the use of ice control in relation to the preferred alternative are expected to be negligible as this potential impact already exists in the Study Area, and the increased need for ice control would be negligible.

For construction-related water quality impacts, refer to Section M, Construction.

## H. WETLANDS/WATERS OF THE U.S.

Wetlands and waterways are regulated by the U.S. Army Corps of Engineers (USACE) – Rock Island District (USACE – RI) under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill material into waters of the U.S. The State also has regulatory jurisdiction, administered by Iowa DNR, over all waters within its boundaries.

### 1. Wetlands

The wetlands and other waters of the U.S. located in the Study Area were delineated in the fall of 2001 in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, January 1987). A total of 1.5 acres of wetlands would be impacted by the preferred alternative. These are associated with Whitewater Creek. In addition to these fringe wetlands, the preferred alternative will impact an oxbow of Whitewater Creek that was cut off by earlier U.S. 20 construction and is now a wetland area on the north side of U.S. 20 west of Cox Springs Road. These wetlands are classified as palustrine emergent (Cowardin et al., December 1979) and are dominated by reed canary grass (*Phalaris arundinacea*) and willow (*Salix sp.*). The wetland locations are shown in Figure V-3, Natural Environment Impacts.

### 2. Waters of the U.S.

Under current policy, USACE – RI has defined jurisdictional waterways under Section 404 as those that have a definable bed and bank.

Waters of the U.S. were determined by identifying perennial and intermittent waterways on United States Geological Survey (USGS) quadrangle topographic maps. During the wetlands delineation that occurred in the fall of 2001, all waterways that had a definable bed and bank were identified. Waterways with identified wetlands as part of the drainage system were also identified.

Within the Study Area, Whitewater Creek is an intermittent to seasonal stream that runs parallel to U.S. 20 (refer to Figure V-3, Natural Environment Impacts). Whitewater Creek has a definable bed and bank north of existing U.S. 20 beginning west of Thunder Hills Road. The creek has been diverted into underground agricultural drainage tiles south of U.S. 20 at this location and no longer sustains surface water flows, except during storm events. The total length of the impacts on Whitewater Creek for the preferred alternative is 350 feet.

Other intermittent waterways with definable bed and banks are present within the Study Area at various locations. Refer to Figures V-3 through V-6 for their locations. The impacts associated with these waterways are estimated to be approximately 2,000 feet.

South Fork Catfish Creek and its tributaries exist in or near the U.S. 20 corridor. However, impacts on South Fork Catfish Creek and its tributaries and associated Federal Emergency Management Agency (FEMA)-designated floodplain<sup>3</sup> would occur at the interchange with Southwest Arterial at Seippel Road. These potential impacts will be documented in the Southwest Arterial Addendum to the 1999 Environmental Assessment. The preferred alternative would have no additional impacts on South Fork Catfish Creek or its tributaries and associated floodplain.

### 3. Avoidance, Minimization, and Mitigation

During the conceptual design stage, efforts were made to avoid and minimize impacts on all wetlands, streams, and waterways. Impacts to Whitewater Creek were avoided at two locations:

- The location where the creek crosses Cox Springs Road north of U.S. 20
- The location south of U.S. 20 between Cox Springs Road and Sundown Road where the creek is closest to U.S. 20

The new alignment would provide an access road between Thunder Hills Road and Cox Springs Road. The access road would connect with Cox Springs Road at the existing grade and would not require culvert extensions or additional fills. On U.S. 20 between Cox Springs Road and Sundown Road, the shoulders and side slopes of the highway can be maintained by eliminating grading at the toe of the slope that was planned for a ditch and instead draining precipitation runoff directly into Whitewater Creek. These alignment considerations would eliminate approximately 530 feet of stream impacts to Whitewater Creek and 0.10 acre of associated wetland impacts.

In addition to the avoidance and minimization that have already occurred, mitigation measures would be undertaken. These measures include restoration and/or creation of buffers to protect existing wetlands and waterways. If required, there would also be restoration or creation of palustrine emergent wetlands within the USGS 8-digit level Hydrologic Unit Code (HUC 8) Grant-Little Maquoketa watershed or adjacent HUC 8 watersheds within the Northern Mississippi Valley Loess Hills Major Land Resource Area (portions of Apple-Plum and Maquoketa HUC 8 watersheds).

Landowners who applied for a parcel to be entered into one of two Federal programs, the Wetland Reserve Program and the Emergency Watershed Program, but whose parcels were not accepted into the program can be identified by working with local and State resource agencies. Such parcels are often valued for their potential wetland restoration opportunities though not accepted into the Federal program for one reason or another. An initial inventory of such potential sites indicated that parcels are available for mitigation opportunities. An analysis of potential sites would be performed as part of the mitigation concept for the

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<sup>3</sup> A floodplain is the land area adjacent to a stream, including the floodway, inundated by a particular flood event. A floodway is the channel and any adjacent floodplain areas that must be kept free of encroachment to ensure that the 100-year flood is conveyed without increasing the flood height by more than 1.0 foot.

USACE Section 404/401 permit application. A USACE Section 404/401 permit is required for any fill activities in jurisdictional wetlands or waters of the U.S. After the NEPA process has been completed for the preferred alternative, Iowa DOT would submit a permit application to USACE – RI for approval.

## I. FLOODPLAINS

Whitewater Creek and tributaries of South Fork Catfish Creek have FEMA-designated floodplains that would be affected by the preferred alternative. The preferred alternative would impact floodplains at various locations (refer to Figures IV-2 through IV-5 in Chapter IV). The impacts primarily would be fills required for the construction of access roads and interchanges. Culverts would be sized to provide adequate conveyance of Whitewater Creek and associated tributaries of South Fork Catfish Creek. Approximately 25 acres of floodplain would be affected.

The impacts on the floodplain and floodway of South Fork Catfish Creek would be associated with the interchange with Southwest Arterial at Seippel Road and are documented in the Southwest Arterial Addendum to the 1999 Environmental Assessment. Should this Project be constructed prior to the Southwest Arterial, the permits and associated mitigation for floodplain impacts would be associated with this Project. Refer to Chapter IV, Section C, Part 4 for a discussion of the Southwest Arterial project. No additional impacts on the FEMA floodplain of South Fork Catfish Creek are associated with the preferred alternative. Refer to Figure IV-6 in Chapter IV, which shows the floodplain and interchange alignments associated with Southwest Arterial.

Mitigation for impacts to the floodplain of Whitewater Creek and tributaries of South Fork Catfish Creek would be addressed through the State's floodplain construction permitting process.

## J. BIOLOGICAL RESOURCES

The Study Area primarily consists of lands dedicated to agricultural use, with small forested and riparian areas located between Peosta and South Fork Catfish Creek. The Midwest Region of the USFWS classifies the Study Area as the Upper Mississippi River Tallgrass Prairie Ecosystem. Species native to this ecosystem includes the following (USFWS, 2002):

- Plant species – tallgrass prairie grasses, forbs, flowers (such as big and little bluestem, switchgrass, prairie cone flower, and purple prairie clover), and oak savanna habitat, which is a combination of grasses and shrubs with trees such as the bur oak and red oak
- Animal species – both nesting and migratory bird species, white-tailed deer, muskrat, beaver, raccoon, skunk, and fox
- Fish species – smallmouth bass and catfish

## 1. Impacts

The plant and wildlife species found within the Study Area are common for the region. The forested areas and transition zones located between Peosta and South Fork Catfish Creek have the greatest plant species diversity and carrying capacity for wildlife. A total of 15 acres of forested riparian areas would be impacted by the preferred alternative. Most of the upland areas are row cropped or used as grazing pasture and have minimal plant species diversity and low carrying capacity for wildlife. Some terrestrial and forested habitat would be removed during construction.

Removal of this habitat within the ROW would permanently displace plants and wildlife. The mortality of common plant and wildlife species would subsequently increase with the preferred alternative. This impact would not be significant, however, because removal of forested areas required for construction would be minimized and suitable plant and wildlife habitat is located in the surrounding area.

Fish species in South Fork Catfish Creek would not be adversely affected as no improvements to the creek crossing are planned for the preferred alternative.

## 2. Mitigation

To minimize impacts, the ROW would be seeded with a native grass and forb mixture. Iowa DOT projects use native grasses and forbs to stabilize soil and decrease soil erosion. Planting these types of vegetation would increase plant diversity. In addition, Iowa DOT may dedicate excess ROW in riparian areas to plant and wildlife mitigation.

## K. HISTORIC, ARCHAEOLOGICAL, AND RECREATIONAL RESOURCES

Historic, archaeological, and recreational resources were identified within the Study Area. The following summarizes the efforts to determine whether any potential Section 106, Section 4(f), or Section 6(f) properties are located in the Study Area and would be affected by the preferred alternative.

### 1. Section 106 Resources

Section 106 of the National Historic Preservation Act of 1966 (NHPA) requires Federal agencies to determine whether their undertakings will have adverse impacts on historic properties that are listed in or are eligible for listing in the NRHP and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment ("Section 4f. Introduction: Related Statutes," 2002). In an effort to make this determination, historic and archaeological resources were surveyed and their significance evaluated.

Surveys were conducted of the Study Area in 2001 and 2002 to determine the presence of known sites or sites eligible for listing in the NRHP. The findings are summarized as follows.



**a. Historic and Architectural Properties**

Two properties within the Study Area were determined eligible for listing in the NRHP. These sites are identified in Figure V-2 and are described below. Additional information on these sites may be found in *U.S. 20 Capacity Improvement Study; Intensive Level Historical and Architectural Survey* (Nash, 2002). The Project will have no effect on these properties (Iowa DOT, June 3, 2003; State Historical Society of Iowa, June 9, 2003).

1. N. Perry Farmstead, also referred to as the Chapman Farmstead (State Inventory No. 31-04618) – The historic and current functions of this property are categorized as a farmstead. The property is eligible for listing in the NRHP under criterion C, for distinctive architectural characteristics. Two buildings, an Italianate house (State Inventory No. 31-04619) and an English three-bay threshing barn (State Inventory No. 31-04620) are individually eligible for listing in the NRHP under criterion C.

The N. Perry Farmstead is out of the limits of construction and would not be affected by the preferred alternative.

2. John and Elizabeth Jones Farmstead, also referred to as Watters Farmstead (State Inventory No. 31-04596) – The historic and current functions of this property are categorized as a farmstead. The property is eligible for listing in the NRHP under criterion C, for distinctive architectural characteristics.

Many features on the farmstead contribute to the Jones historic farmstead district. They are as follows:

- House (State Inventory No. 31-04597) – The historic function of this property is categorized as a single dwelling residence. The current function of this property is categorized as vacant. The property is eligible for listing in the NRHP under criterion C, for distinctive architectural characteristics.
- Side-entrance barn (State Inventory No. 31-04598) – The historic function of this property is categorized as a general-purpose barn. The current function of this property is categorized as vacant. The property is eligible for listing in the NRHP under criterion C, for distinctive architectural characteristics.
- Stone quarry and road segment – For specific information on these two features, refer to the following discussion of archaeological sites.

The John and Elizabeth Jones Farmstead is located within the limits of construction. However, the preferred alternative would affect only the road segment that is the original access to the farmstead (refer to the following discussion of archaeological sites for further information).

**b. Archaeological Sites**

As a result of the archaeological survey, one site within the Study Area was determined to be potentially eligible for listing in the NRHP and will be adversely affected by the Project, and another site was noted as contributing to the John and Elizabeth Jones Farmstead (which is described in the discussion of historic and architectural properties, above) and will not be affected by the Project. Exact locations and descriptions of these sites are not disclosed for

confidentiality reasons. General site information is described below. Additional information on these sites may be found in *U.S. 20 Capacity Improvement Study; Archaeological Study* (Rogers, 2003).

1. Mid-nineteenth century historic site (State Inventory No. 13DB763) – This site is potentially eligible for listing in the NRHP under criterion D, for yielding significant information in archaeology or history. The Project would have an adverse affect on this property and will be examined at the Phase II level to confirm its eligibility for listing on the NRHP (Iowa DOT, March 21, 2003). Mitigation for this site will be determined during the completion of the Section 106 process.
2. Stone quarry and road segment associated with the John and Elizabeth Jones Farmstead (State Inventory No. 13DB790) – While the stone quarry and road segment are not individually eligible for listing in the NRHP, they contribute to the architectural significance of the farmstead. Neither the quarry nor the road segment would warrant investigation at the Phase II level as they are simply part of the overall landscape and cultural features associated with the John and Elizabeth Jones Farmstead. The preferred alternative would affect the road segment by changing the current access to the farmstead from U.S. 20 to access by way of Landfill Road. This would enhance the historic farmstead's architectural properties because it would re-establish the historic way to enter and view the farmstead. The road segment, as an eroded feature, does not possess much information potential other than the historic entry to the property. The Iowa State Historic Preservation Office reviewed the concept for re-establishing the road segment and concurs that re-establishing the road segment would not affect the farmstead (Iowa DOT, March 21, 2003).

## 2. Section 4(f) Resources

Section 4(f) states in part:

It is the policy of the United States Government that special effort be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. (49 USC 303)

Section 4(f) requires that USDOT determine whether a proposed highway project would adversely affect a Section 4(f) resource. If a project will affect a Section 4(f) resource, all feasible and prudent ways of avoiding this impact must be evaluated. Section 4(f) resources are:

- Public recreation areas
- Parks
- Wildlife and/or waterfowl refuges
- Significant historic properties, excluding those properties only eligible for the NRHP under criterion D (These same resources are also considered under Section 106 of the NHPA.)

The properties listed under the discussion of historic and architectural properties, above, are also protected by Section 4(f). The preferred alternative would not affect these properties. The mid-nineteenth century historic site described in the archaeological resources section is not eligible for Section 4(f) protection as it is eligible for listing only under criterion D.

There are no public recreation areas, parks, or wildlife and/or waterfowl refuges located within the Study Area.

Because the preferred alternative would not affect any Section 4(f) property, mitigation would not be needed.

### 3. Section 6(f) Resources

Section 6(f) of the Land and Water Conservation Fund Act of 1965 was established to protect Federal investments and maintain high-quality recreation resources ("Legal Protection," 2002). The National Park Service administers Section 6(f), which protects parks and recreation areas that were acquired, developed, or rehabilitated, even in part, with the use of any Federal land and water grant funds. All Federal agencies must comply with Section 6(f) (16 USC 4601-4 to -11 et seq., as amended).

Section 6(f) states that no lands that have been paid for in part or in entirety by Federal land and water grants can be converted to non-park or non-recreation uses without the approval of the National Park Service. This approval will be granted only if the action is in compliance with the state recreation plan and an area of equal fair market value and usefulness is substituted for the land being removed from park and/or recreation use (16 USC 4601-4 to -11 et seq., as amended).

No public lands or public facilities developed with Federal land grant funds exist within the Study Area.

### L. HAZARDOUS WASTE SITES

A Phase I Environmental Site Assessment (ESA) was completed along the U.S. 20 corridor in Dubuque County, from Peosta Road to Devon Drive, to identify sites with recognized environmental conditions (RECs).<sup>4</sup> This section reviews the results of this ESA to assess the potential impacts of sites with RECs on the preferred alternative.

The ESA included a records review of environmental databases, a visual inspection of the Study Area, and personal interviews. The ESA identified three sites with RECs that are located between Sundown Road and the Northwest Arterial (Phase I, 2002). These three sites are listed in Table V-6 and identified in Figure V-2, Other Environmental Impacts.

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<sup>4</sup> The American Society for Testing and Materials defines an REC as "the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property" (E1527-00).

**TABLE V-6**  
**SITES WITH RECOGNIZED ENVIRONMENTAL CONDITIONS**

Site Description	Recognized Environmental Condition	Impacts from the Preferred Alternative
IOCO Auto/Truck Plaza, U.S. 20 West (northeast of Swiss Valley Road and U.S. 20)	UST and leaking underground storage tank (LUST) site	Potential
John Ward, northeast corner of Northwest Arterial and U.S. 20 intersection	Fill site, metals detected in groundwater at the southwest portion of site	Potential
White Front Feed 4290 Dodge Street	Former underground storage tank (UST) site	None

A discussion of each potentially impacted site with RECs identified in the Study Area follows. For a detailed discussion of all sites and RECs, refer to the *Phase I Environmental Site Assessment, Iowa Department of Transportation, U.S. 20 Corridor From Devon Drive, Dubuque to Peosta* (IIW Engineers and Surveyors, P.C., October 2002).

### 1. IOCO Auto/Truck Plaza

The IOCO Auto/Truck Plaza is located approximately 0.10 mile east of the intersection of U.S. 20 and Swiss Valley Road along U.S. 20 (refer to Figure V-2). Iowa DNR lists five active gasoline USTs at this property. In addition, this site is listed as a leaking UST site.

A 1990 Iowa DNR spill report indicates a diesel fuel spill of approximately 245 gallons. According to Iowa DNR, the property owner has not adequately defined the free product plume. This site is currently undergoing remediation with Iowa DNR oversight.

This site potentially would be affected by the preferred alternative. An access road would be constructed behind the property, which is away from the businesses primary operations (USTs and pump islands). Since the extent of migration of free product has not been defined, it cannot be definitively determined that the preferred alternative would not encounter contaminated soil or groundwater. Further investigation would be conducted prior to construction to assess the extent of impact to the preferred alternative.

### 2. John Ward

The John Ward site, located north and east of the intersection of Northwest Arterial and U.S. 20, is now owned by the State (refer to Figure V-2). John Ward used this site for a number of years as a fill site. Iowa DNR investigated allegations of illegal dumping on the property and did not take action against the owner.

John Deere Waterloo Works used this site for approved fill in 1996. The Iowa DNR Solid Waste Section approved and monitored this activity. Iowa DNR concluded that there was no indication of hazardous material in this fill.

In July 2000, a Limited ESA was performed in conjunction with acquisition of this property by Iowa DOT. This assessment indicated that the groundwater flow was from southwest to northeast, away from the U.S. 20 Study Area. Groundwater samples revealed elevated levels of metals in the monitoring well at the southwest edge of the property, closest to the U.S. 20 intersection. This report recommended further investigation to confirm the nature of the groundwater impacts in this area (Limited Environmental Site Assessment, 2000).

The preferred alternative would include a partial reconstruction of the north side of U.S. 20. This reconstruction would include the westbound lanes approximately 750 feet to the east of the intersection of U.S. 20 and Northwest Arterial. This portion of the preferred alternative would impact the John Ward site. Prior to construction, additional investigation would be conducted in accordance with the July 2000 Limited ESA to determine the groundwater impacts in this area.

## **M. CONSTRUCTION**

The impacts of construction would be temporary, as they would be limited to the period of construction. The major impacts during construction would be related to noise, air quality, visual resources, and water quality. In addition, there would be impacts on travel patterns and accessibility. Because detailed discussion of construction impacts is not feasible until final design has been completed for the preferred alternative, general impacts are discussed in this section for construction impacts. However, all practical precautions would be taken to limit and minimize the temporary impacts of construction activities. Construction related impacts are not considered to be significant.

### **1. Noise**

Potential noise impacts during construction would be associated with the redirection of traffic within the Study Area and the construction activities associated with the proposed improvements.

#### **a. Impacts**

During certain phases of construction, the redirection of traffic may result in traffic being moved closer to some of the noise-sensitive receivers. If this does occur, however, traffic noise levels are not expected to be significantly more noticeable than they are currently.

The process of roadway construction may include excavation, precision explosives, fill activities, grading, and other related activities. The noise-sensitive receivers located directly adjacent to the corridor are those most likely to experience impacts.

#### **b. Mitigation**

Best Management Practices (BMPs) would be used to mitigate construction-related impacts. With respect to noise impacts, BMPs would require that construction be limited to daylight hours, typically 6 a.m. to 6 p.m. This would reduce noise levels for any neighboring residential areas during evening and overnight hours.

## 2. Air Quality

Short-term air quality impacts during construction would occur for the following reasons:

- Vehicle delays during construction would increase exhaust emissions.
- Construction vehicles and related equipment would increase exhaust emissions.
- Disruption of ground covers by grading and other activities would generate dust.

### a. Impacts

Emissions due to vehicle delays, construction vehicles and equipment, and activities generating dust would be minimized to the extent possible and are not expected to change the "attainment" air quality status of the area.<sup>5</sup>

### b. Mitigation

To minimize air quality impacts during construction, the following BMPs would be implemented:

- Smooth traffic flow patterns would be enforced so that emissions from idling cars would be minimized.
- Equipment would not be concentrated at locations near any sensitive receiver sites, and no single piece of equipment would result in significant pollution concentrations.
- Construction contractors would be required to comply with the statutory regulations for the State for air pollution control and to receive permits, as needed.
- Construction contracts would stipulate adherence to requirements regarding open burning of grub material, fugitive dust, visible emissions, and permits.
- A schedule of water sprinkling would be developed and followed to control dust.

## 3. Visual Resources

### a. Impacts

Impacts on visual resources during construction would be temporary and negligible.

### b. Mitigation

For any construction areas that would remain unvegetated for an extended period of time, such as over the winter, temporary seeding would be required. This would be required around residential areas and any other area where fugitive dust over an extended period of time would be unacceptable.

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<sup>5</sup> The Clean Air Act and Amendments of 1990 define an "attainment area" as a locality where air pollution levels meet National Ambient Air Quality Standards for certain criteria air pollutants, including particulate matter, sulfur dioxide, ozone, nitrogen dioxide, carbon monoxide, and lead.

#### **4. Water Quality**

South Fork Catfish Creek, located near the eastern terminus of the Study Area, is the largest stream in the Study Area. Whitewater Creek, located in the western portion of the Study Area, is a second order stream. Smaller water features, such as farm ponds and intermittent streams, are scattered throughout the Study Area.

##### **a. Impacts**

Because the existing bridge structure over South Fork Catfish Creek would not be modified as a result of the preferred alternative, no direct impacts from construction are anticipated for the creek. As discussed in Section H.2, Whitewater Creek would be minimally impacted by the preferred alternative. Storm events could cause erosion of non-vegetated fill material to run off into South Fork Catfish Creek and Whitewater Creek and their respective tributaries, causing indirect impacts to these waterways. In addition, potential spills of chemicals and petroleum products used for maintenance of machinery and other work vehicles could cause water contamination during periods of runoff.

##### **b. Mitigation**

A stormwater runoff prevention plan and BMPs would be implemented to prevent sediment and other pollutants from entering creeks and streams. The specific sediment, erosion control, and spill prevention measures for the preferred alternative would be developed during the detailed design phase and included in the plans and specifications phase. It is likely that the plans would include installation of silt fences, detention basins, buffer strips, or other features used in various combinations and the placement of drums of petroleum products in secondary containment to prevent leakage onto ground surfaces.

#### **5. Travel Patterns and Accessibility**

##### **a. Impacts**

Redirection of traffic may be required during construction. This would temporarily alter travel patterns and accessibility. Also, short-term traffic delays might result from the movement of construction equipment and vehicles.

##### **b. Mitigation**

A traffic control plan would be developed prior to construction, and details would be developed during future roadway design. As part of this process, the traffic redirection plan developed during design would minimize the amount of disruption to traffic while ensuring the safety of motorists. This would include using appropriate signage and construction barriers to alert motorists to altered traffic conditions. In addition, coordination with emergency service providers and schools would be conducted prior to changing any access.

## **N. INDIRECT AND CUMULATIVE IMPACTS**

### **1. Indirect Impacts**

Indirect impacts are unintentional project impacts (positive or negative) that would affect the socioeconomic and/or natural environment beyond the ROW and would occur later in time or be farther removed in distance from the Study Area. The following indirect impacts have been identified for the preferred alternative:

- Future land use

Indirect impacts relating to future development could occur near Peosta. Residential developments are planned for the east side of Peosta east of Cox Springs Road north of U.S. 20 and west of Cox Springs Road north of U.S. 20 (refer to Figure IV-2). The interchange locations and subsequent access roads may promote development in this area. Conversely, potential future development south of U.S. 20 in the Cox Springs Road location may be adversely impacted as access across U.S. 20 at this location would be eliminated.

Access to U.S. 20 would also be eliminated at Cottingham Road (refer to Figure IV-3). The existing land use at this intersection is agricultural. Future land use shows this area remaining in agriculture. Eliminating access to U.S. 20 at this location would not affect this future land use.

For a discussion of direct impacts associated with changes in existing land use resulting from the proposed interchanges, refer to Section B, Land Use.

- Existing development

Potential business impacts in the form of out-of-distance travel would be created by the preferred alternative. Out-of-distance travel is an inconvenience for potential customers and may cause them to go elsewhere for desired goods or services. A loss of customers creates a hardship for the owners of these businesses. The intersection at Swiss Valley Road would create out-of-distance travel for existing businesses near North Cascade Road (refer to Figure IV-3).

While out-of-distance travel would occur for some businesses, these businesses are primarily destination businesses and would not be greatly affected by loss of customers due to out-of-distance travel. In addition, improving the safety of the intersections with U.S. 20 and the overall improvement to the roadway system will benefit the daily operations of these businesses.

### **2. Cumulative Impacts**

Cumulative impacts are effects of the preferred alternative that are combined with the effects from other projects and persist to the long-term detriment of the environment. The Council on Environmental Quality (CEQ) regulations define cumulative impacts as:



The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. (CEQ, 1978)

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. In order for cumulative impacts to be evaluated, these other actions must have advanced far enough in the planning process that their implementation is reasonably foreseeable. In addition, the impacts of these other actions must overlap the impacts of the preferred alternative.

The following paragraphs identify past, present, and reasonably foreseeable actions; discuss the potential resulting cumulative impacts; and evaluate the impacts on affected resources.

**a. Past Actions**

Past actions that have affected the Study Area include construction of U.S. 20 and implementation of the CPZ from Northwest Arterial to Peosta.

- Construction of U.S. 20 resulted in impacts to Whitewater Creek and South Fork Catfish Creek in the Study Area. In addition, other creeks and wetlands adjacent to the highway were impacted.
- The CPZ is designed to coordinate development efforts in the immediate vicinity of the U.S. 20 corridor with potential future transportation-related improvements to the U.S. 20 corridor. The implementation of the CPZ is designed to have a beneficial effect together with the proposed Project-related improvements.

**b. Present Actions**

There are no present actions that have a cumulative effect in relation to the preferred alternative.

**c. Reasonably Foreseeable Actions**

Reasonably foreseeable actions are projects that are far enough along in the planning process that their implementation is likely. The following reasonably foreseeable actions in the vicinity of the Study Area have been identified:

- Southwest Arterial Project

The Southwest Arterial project, as proposed, would create a direct connection between U.S. 61/151 and U.S. 20 on the southwest side of the City. The Southwest Arterial project proposes an interchange with U.S. 20 at Seippel Road (refer to Figure IV-4). This EA has taken this interchange location into account and assumes that the interchange and all related improvements would be built as a part of the Southwest Arterial project. Refer to Chapter IV, Section C, Part 4 for a discussion of the Southwest Arterial project. The construction of this interchange would have negative natural resource impacts on existing water resources (South Fork Catfish

Creek and associated wetlands), farmland, and wildlife. The cumulative effects on the natural environment would be overall impacts on the water resources, farmland, and wildlife in the Study Area. Both projects would require acquisition of new roadway ROW.

Acquisition of new roadway ROW for the Southwest Arterial project and this Project would result in the cumulative loss of tax base. The cumulative loss of tax base is insignificant in comparison to the total budgets of local governmental bodies, including Dubuque County, local townships, local school districts, and other small entities.

The construction of Southwest Arterial would also have cumulative impacts on land use. Land use would change from existing agricultural land to commercial use. However, this change in land use is consistent with existing land use plans and would therefore not be a cumulative impact.

Impacts to wetlands and other waters of the U.S. will be mitigated in accordance with Section 404 of the Clean Water Act. The loss of farmland and wildlife is insignificant compared to the amount of farmland and wildlife in the vicinity of these projects. Loss of tax base, as described above, is also insignificant. While cumulative impacts exist, the amount and the ability to mitigate for losses offsets the cumulative impacts with the Southwest Arterial project.

- U.S. 20 Intersections Project

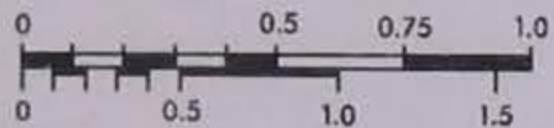
The U.S. 20 intersections project involves the short-term improvements of various intersections on U.S. 20 within the City. These improvements are interim in nature and are designed to improve the existing LOS by improving operations. The improvements are consistent with the overall purpose of and need for this Project. The collective impacts associated with the U.S. 20 intersections project, combined with the impacts associated with this Project, would not constitute a cumulative impact on the environment because its impacts do not overlap those of this Project.

- U.S. 20 Mississippi River Bridge Capacity Improvement Study

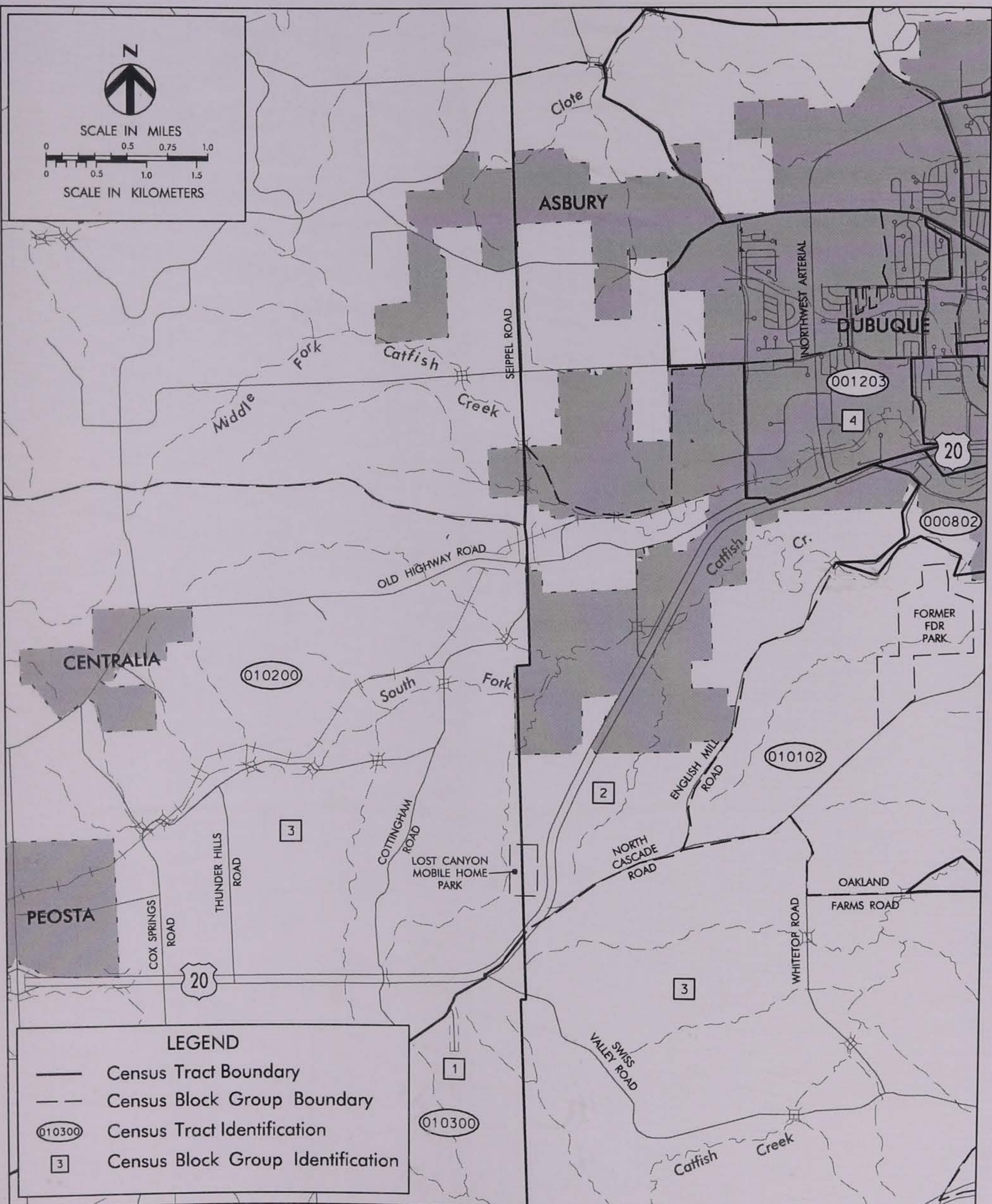
The U.S. 20 Mississippi River Bridge Capacity Improvement Study evaluates the potential improvements to the Julian Dubuque Bridge to increase capacity for the Mississippi River crossing in this location. Given the relative distance of the Julian Dubuque Bridge from the Study Area, any future improvements made to the bridge would not have a cumulative effect with this Project.




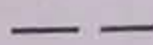
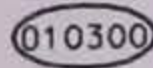
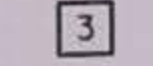
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**LEGEND**

-  Census Tract Boundary
-  Census Block Group Boundary
-  Census Tract Identification
-  Census Block Group Identification

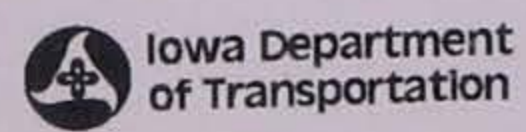
**Census Tract & Block Group Identification**

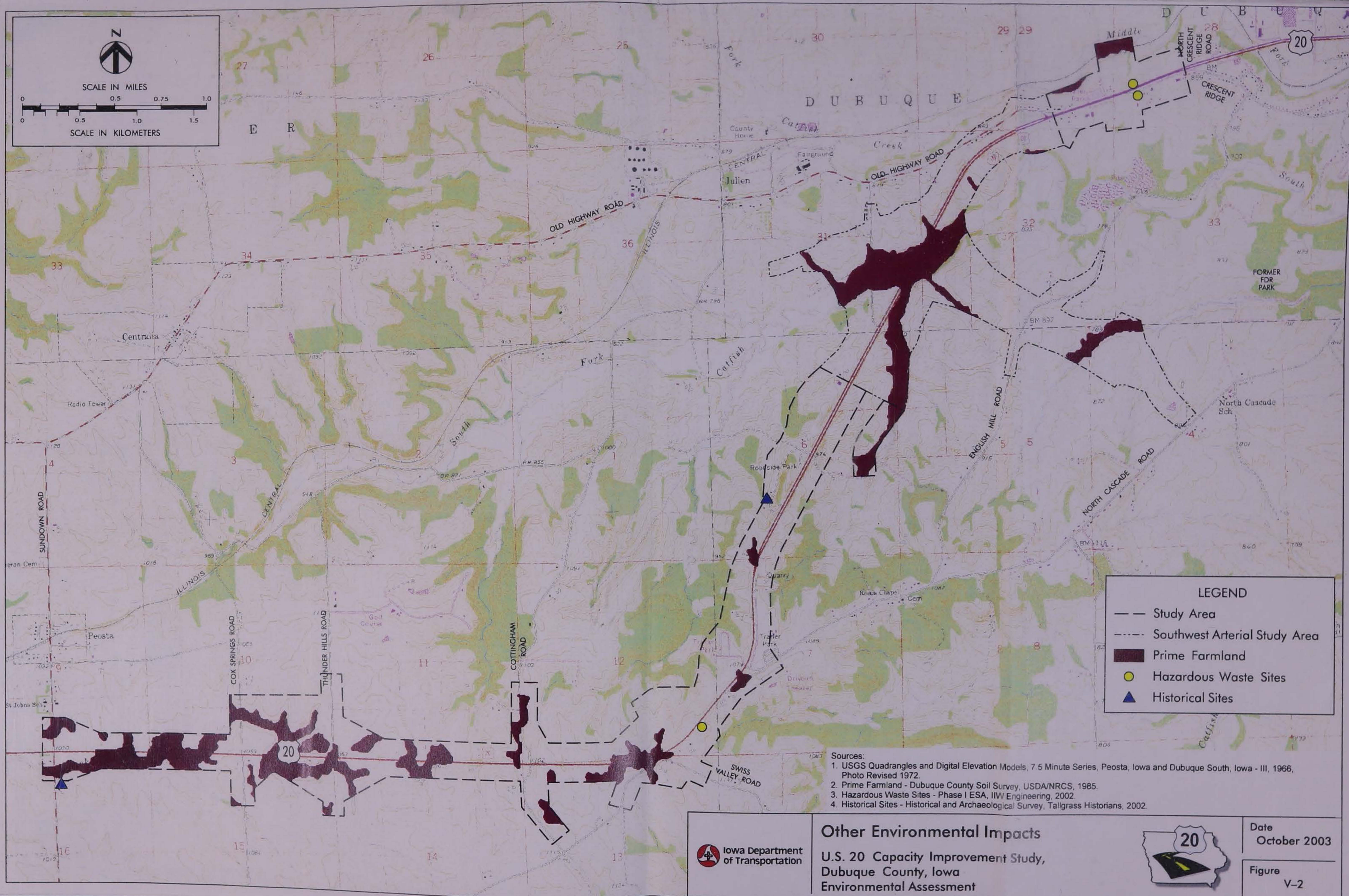
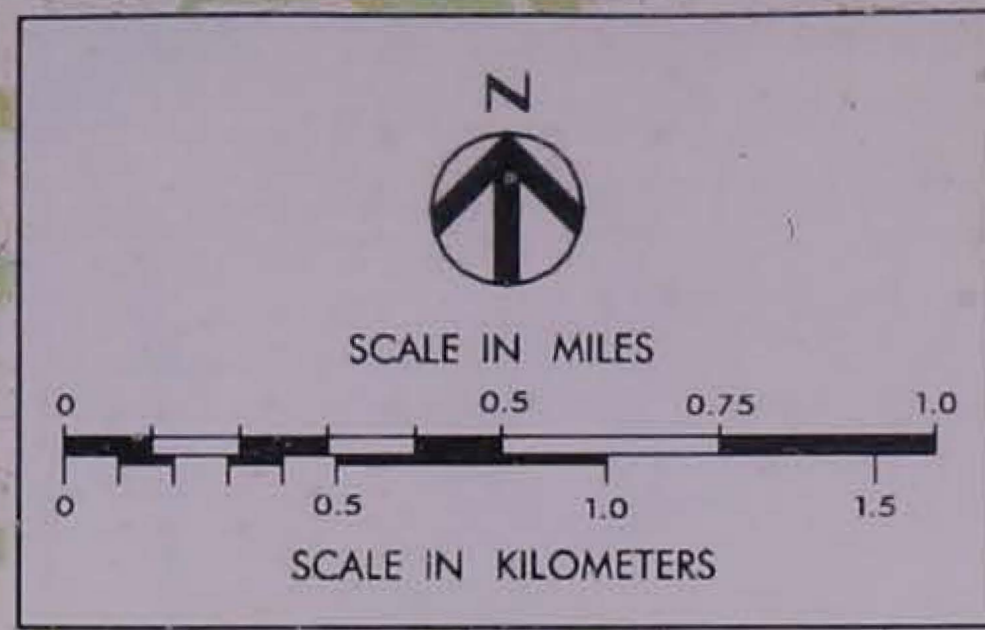
U.S. 20 Capacity Improvement Study,  
Dubuque County, Iowa  
Environmental Assessment



Date  
October 2003

Figure  
V-1

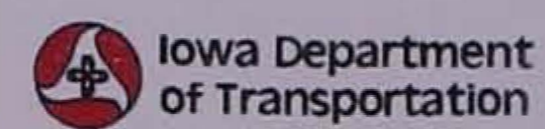




**LEGEND**

- Study Area
- - - Southwest Arterial Study Area
- Prime Farmland
- Hazardous Waste Sites
- ▲ Historical Sites

- Sources:
1. USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa - Ill, 1966, Photo Revised 1972.
  2. Prime Farmland - Dubuque County Soil Survey, USDA/NRCS, 1985.
  3. Hazardous Waste Sites - Phase I ESA, IIW Engineering, 2002.
  4. Historical Sites - Historical and Archaeological Survey, Tallgrass Historians, 2002.

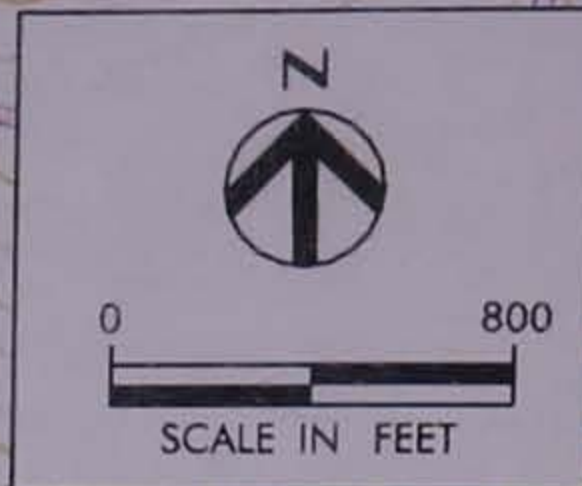
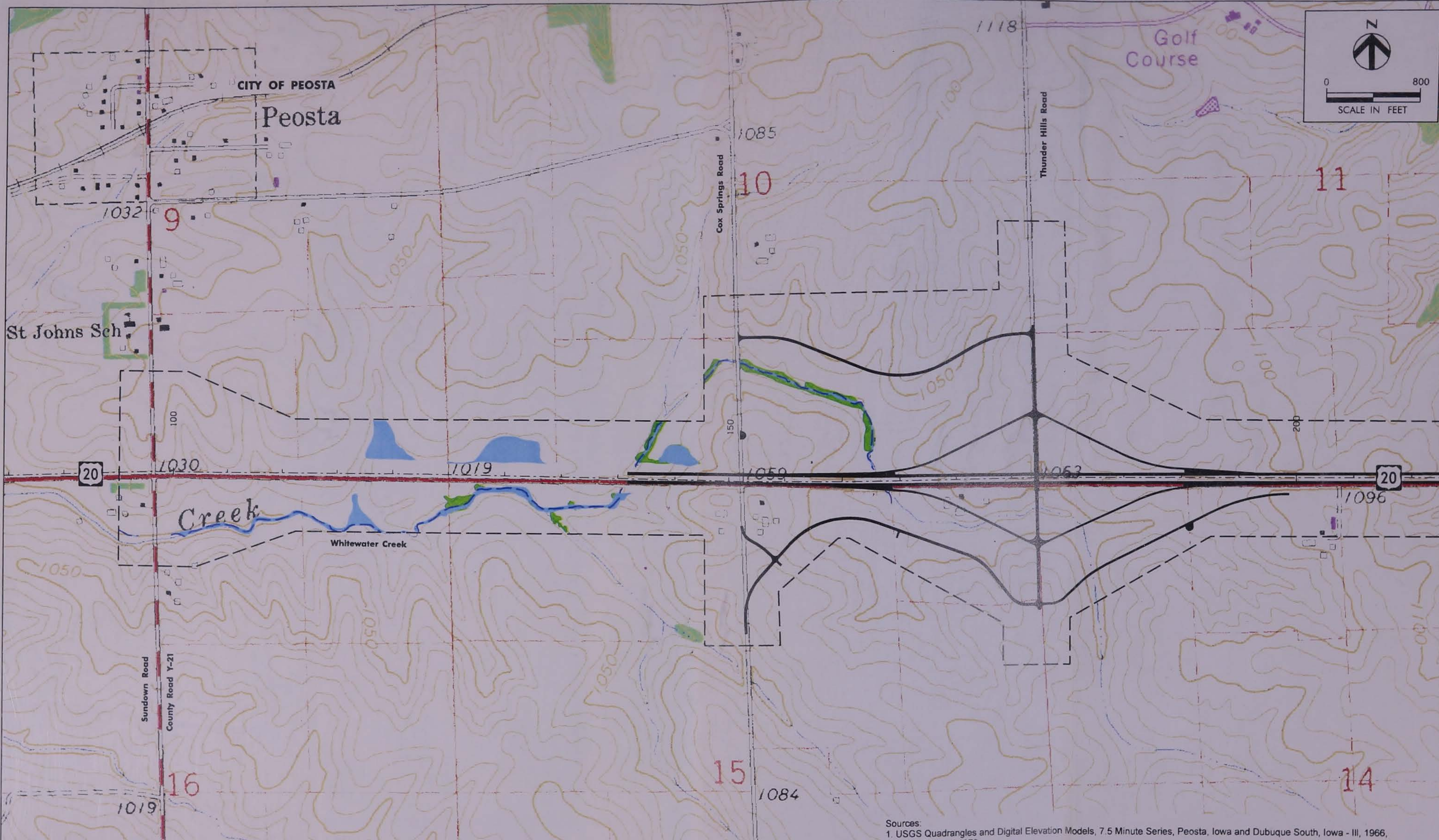


**Other Environmental Impacts**  
 U.S. 20 Capacity Improvement Study,  
 Dubuque County, Iowa  
 Environmental Assessment



Date  
October 2003

Figure  
V-2

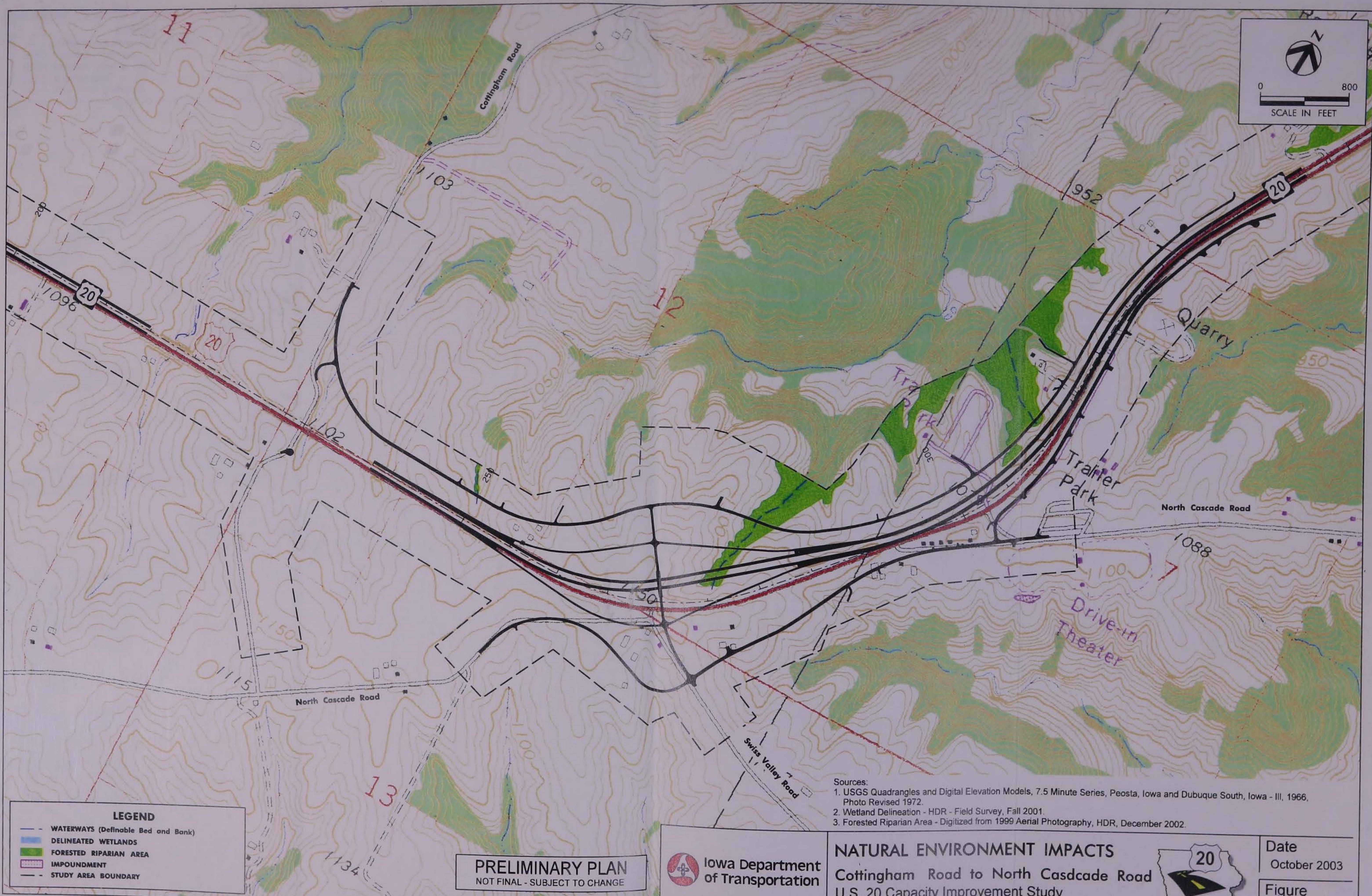


LEGEND	
	WATERWAYS (Definable Bed and Bank)
	DELINEATED WETLANDS
	FORESTED RIPARIAN AREA
	IMPOUNDMENT
	STUDY AREA BOUNDARY

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE

- Sources:
- USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa - III, 1966, Photo Revised 1972.
  - Wetland Delineation - HDR - Field Survey, Fall 2001.
  - Forested Riparian Area - Digitized from 1999 Aerial Photography, HDR, December 2002.

<p>Iowa Department of Transportation</p>	<p><b>NATURAL ENVIRONMENT IMPACTS</b></p> <p>Sundown Road to Thunder Hills Road</p> <p>U.S. 20 Capacity Improvement Study</p> <p>Dubuque County, Iowa</p>		Date October 2003
			Figure V-3

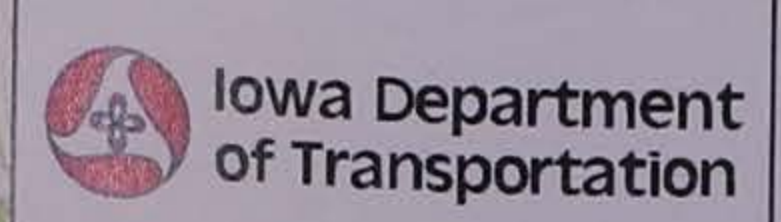


**LEGEND**

	WATERWAYS (Definable Bed and Bank)
	DELINEATED WETLANDS
	FORESTED RIPARIAN AREA
	IMPOUNDMENT
	STUDY AREA BOUNDARY

**PRELIMINARY PLAN**  
NOT FINAL - SUBJECT TO CHANGE

- Sources:
1. USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa - III, 1966, Photo Revised 1972.
  2. Wetland Delineation - HDR - Field Survey, Fall 2001.
  3. Forested Riparian Area - Digitized from 1999 Aerial Photography, HDR, December 2002.



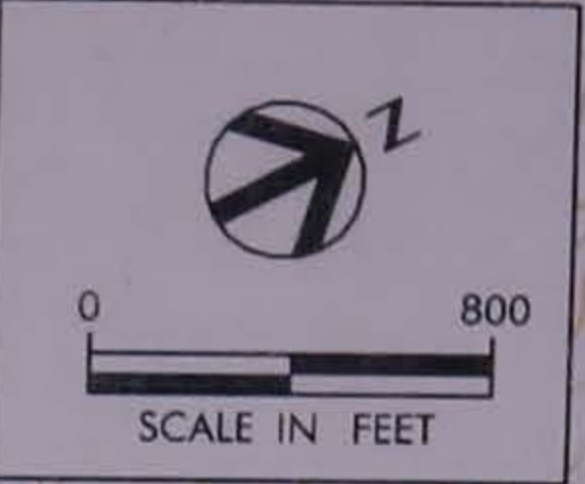
**NATURAL ENVIRONMENT IMPACTS**  
Cottingham Road to North Cascade Road  
U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa



Date  
October 2003  
Figure  
V-4

**LEGEND**

-  WATERWAYS (Definable Bed and Bank)
-  DELINEATED WETLANDS
-  FORESTED RIPARIAN AREA
-  IMPOUNDMENT
-  STUDY AREA BOUNDARY



0 800  
SCALE IN FEET



Sources:  
 1. USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa - III, 1966, Photo Revised 1972.  
 2. Wetland Delineation - HDR - Field Survey, Fall 2001.  
 3. Forested Riparian Area - Digitized from 1999 Aerial Photography, HDR, December 2002.

**PRELIMINARY PLAN**  
 NOT FINAL - SUBJECT TO CHANGE



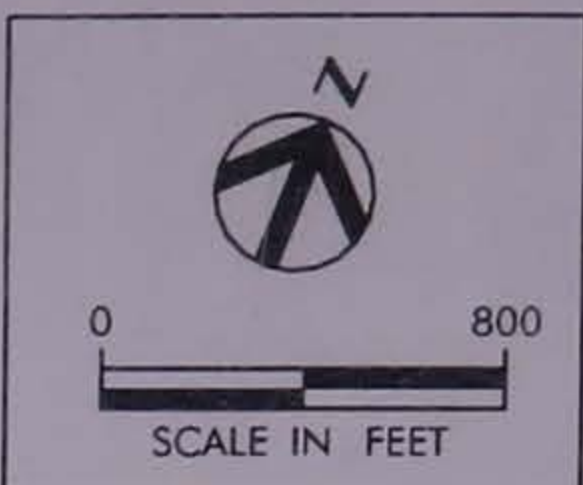
**NATURAL ENVIRONMENT IMPACTS**  
 Landfill Road to Seippel Road  
 U.S. 20 Capacity Improvement Study  
 Dubuque County, Iowa



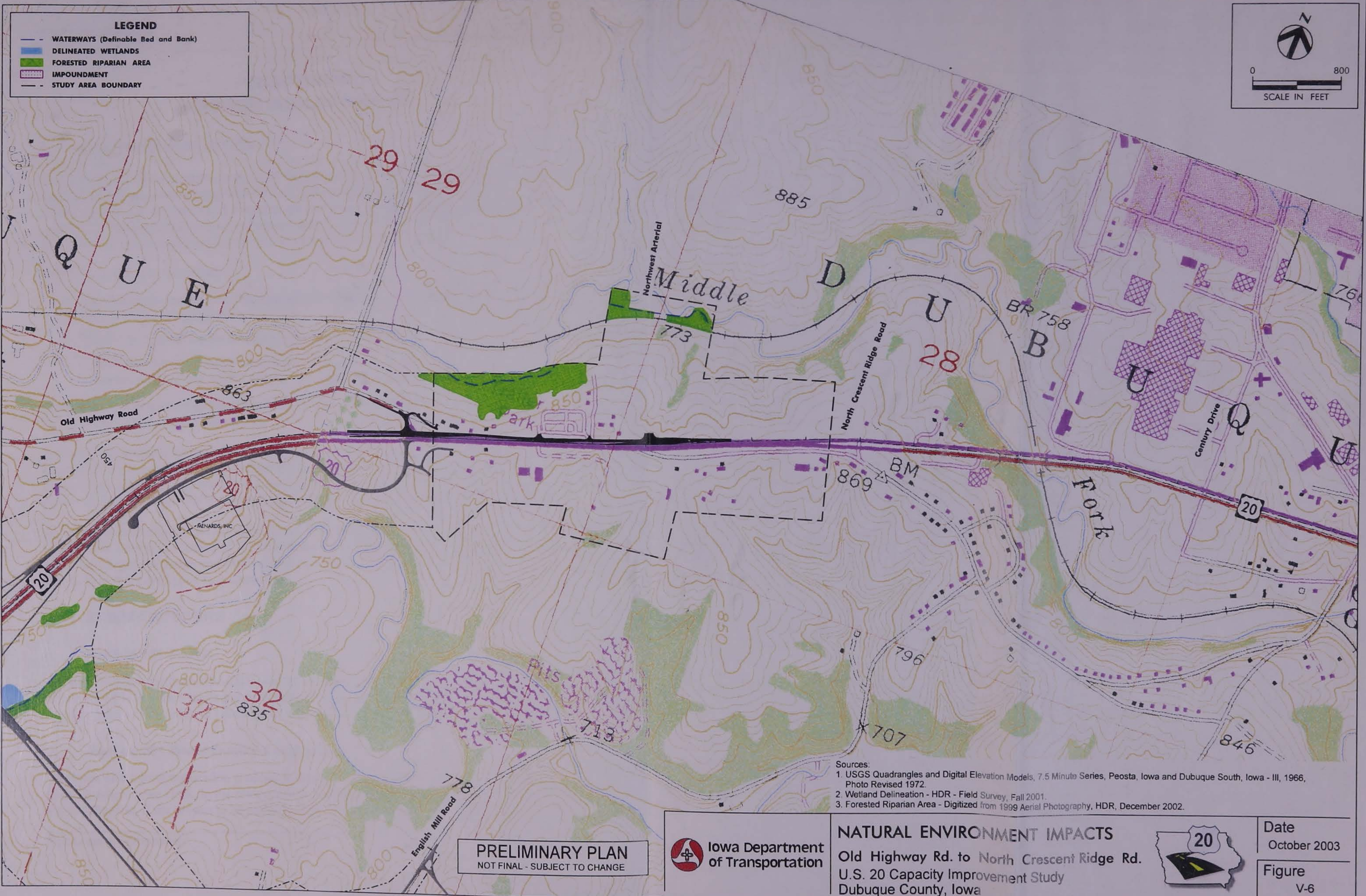
Date  
 October 2003  
 Figure  
 V-5

**LEGEND**

-  WATERWAYS (Definable Bed and Bank)
-  DELINEATED WETLANDS
-  FORESTED RIPARIAN AREA
-  IMPOUNDMENT
-  STUDY AREA BOUNDARY

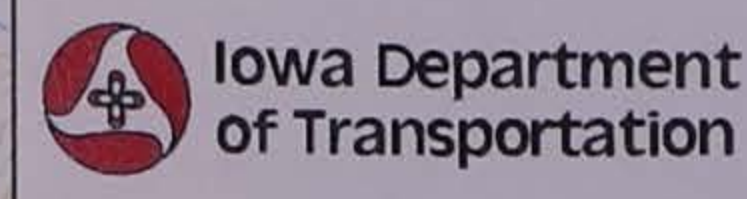


SCALE IN FEET



Sources:  
 1. USGS Quadrangles and Digital Elevation Models, 7.5 Minute Series, Peosta, Iowa and Dubuque South, Iowa - III, 1966, Photo Revised 1972.  
 2. Wetland Delineation - HDR - Field Survey, Fall 2001.  
 3. Forested Riparian Area - Digitized from 1999 Aerial Photography, HDR, December 2002.

**PRELIMINARY PLAN**  
 NOT FINAL - SUBJECT TO CHANGE



**NATURAL ENVIRONMENT IMPACTS**  
 Old Highway Rd. to North Crescent Ridge Rd.  
 U.S. 20 Capacity Improvement Study  
 Dubuque County, Iowa



Date  
 October 2003  
 Figure  
 V-6



## **CHAPTER VI DISPOSITION OF THE EA**

### **A. DOCUMENT DISPOSITION**

This U.S. 20 EA documents the analysis of the Project in accordance with NEPA. The full range of potential environmental impacts was studied in detail, as reported herein. Active public involvement was encouraged by various means during the process of developing concepts, analyzing potential environmental impacts, and identifying the preferred alternative, as documented in Chapter VII, Comments and Coordination.

This U.S. 20 EA concludes that:

- The Project is necessary to improve safety, roadway capacity, and existing highway design within the Study Area.
- The Project would satisfy the purpose and need as defined in Chapter III.
- The Project would not have significant adverse social, economic, or environmental impacts of a level that would warrant the preparation of an EIS.

Alternative A was selected as the preferred alternative because of fewer social impacts and lesser cost than other viable alternatives.

Following the public's review of this U.S. 20 EA (refer to Chapter VII, Comments and Coordination), Iowa DOT will review the public comments received and prepare responses. At one of its regularly scheduled public meetings, the Commission will either decide to support Iowa DOT's and FHWA's preferred alternative or identify other options to pursue.

Unless significant impacts are identified as a result of the public review of this U.S. 20 EA or at the public hearing, a Finding of No Significant Impact will be prepared for the Project. This will allow final design and land acquisition to begin. Section B below identifies permits that would be required prior to construction.

### **B. REQUIRED PERMITS**

#### **1. Section 404 Permit**

A Section 404 permit from USACE would be required for impacts on wetlands and other waters of the U.S. within the Study Area (refer to Chapter V, Project Impacts). USACE requires prior authorization of discharges of dredged or fill material into waters of the U.S.

#### **2. Section 401 Water Quality Certification**

The State uses a joint application process, Section 401 Water Quality Certification, with the USACE where Iowa DNR, in the review of the Section 404 permit application, must decide, via certification, if the project to be authorized by the 404 permit complies with the State's

water quality standards. Any specific conditions required for compliance with the State's water quality standards would be specified in the Section 401 certification and in the permit conditions of the issued Section 404 permit.

### 3. Section 402 National Pollution Discharge Elimination Systems

Iowa DNR administers the Federal National Pollution Discharge Elimination Systems and issues general permits for stormwater discharges for construction activities. The purpose of the program is to improve water quality by reducing or eliminating contaminants in stormwater. A stormwater discharge permit for construction activities will be obtained from Iowa DNR prior to construction of the Project.

The project is subject to the Clean Water Act (CWA), including Iowa DOT, FDOT, and other agencies for stormwater and discharge project development within existing program permits and quality. The Clean-Do process incorporates planning, design, agency coordination, and public involvement elements. It integrates compliance with NPRA and Section 404 of the Clean Water Act.

Agencies that participated in the Clean-Do process for the Project are:

- U.S. Army Corps of Engineers - Rock Island District
- U.S. Fish & Wildlife Service - Rock Island District
- U.S. Environmental Protection Agency - Region 5
- U.S. Department of Agriculture Natural Resources Conservation Service
- Iowa Department of Natural Resources
- Federal Highway Administration - Iowa Division

The final goal of the process is the use of project management teams (PMTs) to provide guidance and oversight throughout the planning and development of a project.

The following describes the efforts and events included for agency coordination and public involvement during the development of the U.S. 20 EA.

#### A. AGENCY COORDINATION

##### 1. Agency Scoping

The agency coordination process was performed as part of the initial environmental study (the EIS for Future to Drive, Drive) prior to redefinition of the project in a redefined study for the U.S. 20 EA. This is appropriate as the purpose and need and alternatives described in the study essentially the same after the project is redefined into the east and west sections (refer to Chapter II, History of the Proposed Action, for a more detailed discussion of the Project's development).

As outlined in Chapter IV, Proposed Alternatives, the PMT consists of Iowa DOT (technical lead)

## **CHAPTER VII**

### **COMMENTS AND COORDINATION**

This chapter includes a summary of agency coordination and public involvement that has taken place in development of this U.S. 20 EA. Future public involvement efforts that are planned for the Project are also discussed. Appendix A contains agency coordination letters received throughout the development of this U.S. 20 EA.

This Project was initiated using Iowa DOT's Can-Do development process. The purpose of the Can-Do process is to strengthen the partnership among Iowa DOT, FHWA, and other agencies by streamlining and shortening project development without losing program integrity and quality. The Can-Do process incorporates planning, design, agency coordination, and public involvement elements. It integrates compliance with NEPA and Section 404 of the Clean Water Act.

Agencies that participated in the Can-Do process for the Project are:

- U.S. Army Corps of Engineers – Rock Island District
- U.S. Fish & Wildlife Service – Rock Island District
- U.S. Environmental Protection Agency – Region 7
- U.S. Department of Agriculture Natural Resource Conservation Service
- Iowa Department of Natural Resources
- Federal Highway Administration – Iowa Division

The focal point of the process is the use of project management teams (PMTs)<sup>1</sup> to provide guidance and ownership throughout the planning and development of a project.

The following describes the efforts and events included for agency coordination and public involvement during the development of this U.S. 20 EA.

#### **A. AGENCY COORDINATION**

##### **1. Agency Scoping**

The agency coordination that was performed as part of the initial environmental study (the EIS for Peosta to Devon Drive) prior to redefinition of the project is considered as coordination for this U.S. 20 EA. This is appropriate as the purpose and need and alternatives considered remained essentially the same after the project was split into the east and west sections (refer to Chapter II, History of the Proposed Action, for a more detailed discussion of the Project's development).

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<sup>1</sup> As explained in Chapter IV, Proposed Alternatives, the PMT consists of Iowa DOT technical staff.

Early agency coordination occurred in March 2001 and consisted of letters to the Federal and State agencies, as well as other local governmental agencies, to announce the initiation of the Capacity Improvement Study for U.S. 20, Peosta to Devon Drive, and to announce the agency scoping meeting. Table VII-1 provides a summary of the agency responses. Written agency responses to the early coordination request are provided in Appendix A.

**TABLE VII-1  
AGENCY RESPONSES**

Agency	Date	Response	Resolution
United States Department of Housing and Urban Development	March 15, 2001	Does not have staff expertise to review. Returned without comment.	None required.
Iowa DNR	March 15, 2001	Attached a preliminary list of underground storage tanks (USTs) and leaking underground storage tanks (LUSTs). They have attached Excel spreadsheet and maps (utilizing ArcView). The department can be contacted for an electronic copy of the files.	Utilized their information for the Phase I Environmental Site Assessment.
USACE	March 15, 2001	Request forwarded to Rock Island District.	None required.
USDA	March 19, 2001	Does not have any specific comments. Recommend contacting the NRCS to initiate the Farmland Conservation Impact Rating, Form 1006.	Developed Form 1006 with NRCS (see Appendix A).
Iowa DNR, Conservation and Recreation	March 21, 2001	No records of rare species or significant natural communities. Though not the result of thorough field surveys, based on the information provided, they do not think the Project will affect protected species or rare natural communities.	None required.
Iowa DNR, Air Quality	March 29, 2001	The area is in attainment for all criteria pollutants as mandated in the Clean Air Act of 1990. At this time, EPA does not have proposed criteria pollutant requirements to prevent construction. Building demolitions will trigger the National Emission Standards for Hazardous Air Pollutants (NESHAPS) for asbestos.	None required.

Agency	Date	Response	Resolution
EPA	April 9, 2001	Reserve the right for comments until NEPA documentation has been prepared. They recommend that HDR proceed with implementation of the proposed plan, that continued consideration be given to ensuring there are minimal impacts to the natural and human environment, and that cumulative impacts have been addressed.	Recommendation followed in preparation of this EA.
USACE – RI	April 13, 2001	No USACE real estate coordination. Advisement of 404 permit requirements.	USACE-RI incorporated in concurrence point process.
State Historical Society of Iowa	May 7, 2001	FHWA will need to comply with Section 106 of the National Historic Preservation Act.	Consultation process with Iowa State Historical Preservation Office undertaken.
USFWS	June 12, 2001	Identified three species that may be present in the area of concern.	Supplied supplemental information on habitat. Received a finding of NO OBJECTION on January 6, 2002 (see Appendix A).
Dubuque County Emergency Management Agency	January 28, 2003	Identified a preference for Alternative A and the second alternative for the Seippel Road interchange as part of the Southwest Arterial project. Also recommended that 3M Opticom Pre-emption systems be installed on traffic signals.	Alternative A is the preferred alternative for the Project. The Seippel Road interchange is addressed in the Addendum to the 1999 Environmental Assessment for the Southwest Arterial project in Dubuque County. Installation of 3M Opticom Pre-emption systems is a design issue and not addressed at this stage of the Project.

An agency scoping meeting was held on March 21, 2001, to introduce the Project to the agencies and address any initial comments and concerns. Agencies represented at the agency scoping meeting were Iowa DNR – Fisheries and Water Quality, FHWA – Iowa Division, East Central Intergovernmental Association/DMATS, and the City. No initial comments or concerns were made by these agencies at that time.

After splitting of the original study area (Peosta to Devon Drive) occurred, a letter to the agencies was sent to describe the changes and reasons for the segmentation and to discuss the new Study Area and level of NEPA compliance that would be performed (refer to Chapter II, History of the Proposed Action). The issue of splitting the original study area was also

discussed during the Concurrence Point No. 3 meeting (see Part 2, NEPA/404 Merge Coordination, below). No questions or comments were made concerning splitting of the project from the agencies in response to the letter or from discussion at Concurrence Point No. 3.

## 2. NEPA/404 Merge Coordination

The agency coordination that occurred in conjunction with the NEPA/404 merge process, as a component of the Can-Do process, consisted of Concurrence Point Meetings No. 1/2 and 3. Concurrence points are milestones within the Can-Do process where the transportation agency requests agency concurrence regarding project purpose and need, alternatives to be considered, alternatives to be carried forward, and the preferred alternative. The intent of the concurrence point process is to encourage early participation by the regulatory agencies in an effort to validate decisions made by the transportation agency during the NEPA process and to avoid revisiting those decisions after significant effort has been expended performing detailed analyses and design. The following concurrence point meetings have been held for this U.S. 20 EA:

- Concurrence Point Meetings No. 1 and No. 2 – Reached concurrence on project purpose and need and alternatives to be analyzed (January 29, 2002)<sup>2</sup>
- Concurrence Point Meeting No. 3 – Reached concurrence on alternatives to be carried forward (January 30, 2003)

Concurrence on the preferred alternative (Concurrence Point Meeting No. 4) will be sought following the Commission's approval of the preferred alternative.

## B. PUBLIC INVOLVEMENT

An extensive public involvement program was used during the development of this U.S. 20 EA in order to effectively engage the general public and interested parties in the Project. The key components of this program are outlined in the following sections.

### 1. Community Advisory Group

A Community Advisory Group (CAG) was established in 1998 for the U.S. 20 Concept Study from Old Highway Road to Devon Drive (see Chapter II, History of the Proposed Action), and meetings of the CAG continued during the U.S. 20 Capacity Improvement Study and during the development of this U.S. 20 EA. The CAG is made up of local residents, as well as business and community leaders representing the City, the County, Dubuque Chamber of Commerce, trucking interests, real estate interests, agricultural interests, and businesses interests.

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<sup>2</sup> Concurrence Point Meetings No. 1 and No. 2 were held prior to splitting of the project. However, these concurrence points did not need to be revisited as the purpose and need and alternatives considered did not change as a result of splitting of the project.

The CAG met four times during the course of the study, generally prior to public information meetings. At these CAG meetings, selected members of the PMT discussed project information, including preliminary and refined concepts, with CAG members and solicited input on the information presented as well as discussed other issues of which the selected members of the PMT may not have been aware.

## 2. Public Information Meetings

Four open-house-style public information meetings were held at key milestones during the development of this U.S. 20 EA to provide information to the public and to gather public feedback. Meeting dates and topics are listed below:

- February 2, 2000 Present and discuss the CPZ (refer to Chapter II, Section B, Part 3) from near Old Highway Road to Swiss Valley Road. More than 120 people attended the meeting. While concerned about impacts to individual properties, most in attendance were supportive of the concept of corridor preservation.
- March 21, 2001 Public scoping meeting to provide study background. Attendance at the meeting totaled 118 people. Generally, comments were positive as those in attendance were looking for background on the project.
- October 11, 2001 Introduce preliminary concepts under consideration. The meeting was attended by 77 people. People generally favored the project, saw the need for improvements, and provided positive comments.
- October 29, 2002 Review and expand the CPZ. A total of 93 residents, business owners, and concerned citizens attended the corridor preservation public information meeting. Although many had concerns with impacts associated with one alignment or another, the consensus was that there is a need for the Project. The typical reasons given for the need were traffic congestion, accidents, and overall safety of the corridor.
- March 25, 2003 Present refined alternatives, including the technically favored alternative. A total of 118 people attended the meeting. Generally, the comments received were positive in nature and supported Iowa DOT's efforts for improvement in the corridor. Attendees were also very understanding and supportive of current funding constraints and took the opportunity to re-emphasize some of their short-term safety concerns within the corridor. Of specific concern with the public were the areas near the IOCO truck stop, the Thunder Hills Road intersection, and the Northwest Arterial intersection.

### **3. Project Newsletters/Interested Party Notification**

Project newsletters were published and distributed to all interested parties on the Project mailing list prior to the first two public information meetings. The Project mailing list includes over 400 businesses and over 500 individuals. Newsletter topics included public meeting announcements, general Project background and approach, and public involvement opportunities.

Letters of invitation were sent to affected property owners and posted in the Dubuque Telegraph Herald prior to CPZ meetings. An informational letter was used to notify interested parties of the March 25, 2003, public information meeting.

### **4. Project Web Site**

A Web site containing project-specific information was developed during the early phases of the U.S. 20 Capacity Improvement Study. This site provided background information about the project, served as a clearinghouse for information presented at public information meetings, and provided a means for the public to contact the PMT with comments and concerns. The project Web site was announced via newsletter.

At the time that the initial project was split into two sections, including the section evaluated in this U.S. 20 EA, Iowa DOT made a decision to remove the project Web site. This was part of a decision to shut down all project Web sites.

### **5. Telephone Hotline**

A joint telephone hotline was set up for the U.S. 20 Capacity Improvement Study and the concurrent study of Capacity Improvements over the Mississippi River. This hotline was announced in the project newsletter. This hotline provided area residents with an opportunity to provide comments, ask questions, or request information. The hotline was not used by the public for the U.S. 20 Capacity Improvement Study.

### **6. Small Group Meetings**

Twenty-seven small group meetings were held with potentially impacted property owners prior to the public unveiling of preliminary concepts. These meetings were used to gather input about the potential impacts of each concept to individual properties. Information from these meetings was used to refine the concepts to minimize impacts based on property owner input.

A small group meeting was also held with residents of the Lost Canyon Mobile Home Park prior to the public unveiling of preliminary concepts since one of the concepts under consideration required relocation of the entire mobile home park.

Small group meetings and presentations were also conducted as requested by groups such as the Chamber of Commerce, Westside Business Association, and others.



## 7. Correspondence

Throughout the course of the project, correspondence was received from the public via a variety of means, including public information meetings, telephone calls, letters, and Email. All public correspondence was logged, and a response was sent to the specific public entity or individual if one was requested.

### C. TRIBAL COORDINATION

The following tribes were contacted to seek comment concerning the Project:

- Iowa Tribe of Okalahoma
- Iowa Tribe of Kansas and Nebraska
- Otoe-Missouri Tribe of Oklahoma
- Sac and Fox Tribe of Mississippi
- Ho-Chunk Nation

No comments concerning the Project have been received to date.

### D. FUTURE PUBLIC INVOLVEMENT

The public review period for this U.S. 20 EA will extend for 30 calendar days from the time the public notice, announcing the publication of the EA, is issued. During that time, a public hearing will be held to obtain comments on the accuracy and completeness of the EA and on Iowa DOT and FHWA's selection of the preferred alternative. A transcript of the hearing will be prepared and responses to the comments from the public hearing, agencies, and interested parties will be incorporated into the NEPA decision document and/or sent directly to the commentor.

Agency	Date	Response	Resolution
EPA	April 9, 2001	Reserve the right for comments until NEPA documentation has been prepared. They recommend that HDR proceed with implementation of the proposed plan, that continued consideration be given to ensuring there are minimal impacts to the natural and human environment, and that cumulative impacts have been addressed.	Recommendation followed in preparation of this EA.
USACE – RI	April 13, 2001	No USACE real estate coordination. Advisement of 404 permit requirements.	USACE-RI incorporated in concurrence point process.
State Historical Society of Iowa	May 7, 2001	FHWA will need to comply with Section 106 of the National Historic Preservation Act.	Consultation process with Iowa State Historical Preservation Office undertaken.
USFWS	June 12, 2001	Identified three species that may be present in the area of concern.	Supplied supplemental information on habitat. Received a finding of NO OBJECTION on January 6, 2002 (see Appendix A).
Dubuque County Emergency Management Agency	January 28, 2003	Identified a preference for Alternative A and the second alternative for the Seippel Road interchange as part of the Southwest Arterial project. Also recommended that 3M Opticom Pre-emption systems be installed on traffic signals.	Alternative A is the preferred alternative for the Project. The Seippel Road interchange is addressed in the Addendum to the 1999 Environmental Assessment for the Southwest Arterial project in Dubuque County. Installation of 3M Opticom Pre-emption systems is a design issue and not addressed at this stage of the Project.

An agency scoping meeting was held on March 21, 2001, to introduce the Project to the agencies and address any initial comments and concerns. Agencies represented at the agency scoping meeting were Iowa DNR – Fisheries and Water Quality, FHWA – Iowa Division, East Central Intergovernmental Association/DMATS, and the City. No initial comments or concerns were made by these agencies at that time.

After splitting of the original study area (Peosta to Devon Drive) occurred, a letter to the agencies was sent to describe the changes and reasons for the segmentation and to discuss the new Study Area and level of NEPA compliance that would be performed (refer to Chapter II, History of the Proposed Action). The issue of splitting the original study area was also

discussed during the Concurrence Point No. 3 meeting (see Part 2, NEPA/404 Merge Coordination, below). No questions or comments were made concerning splitting of the project from the agencies in response to the letter or from discussion at Concurrence Point No. 3.

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- Concurrence Point Meetings No. 1 and No. 2 – Reached concurrence on project purpose and need and alternatives to be analyzed (January 29, 2002)<sup>2</sup>
- Concurrence Point Meeting No. 3 – Reached concurrence on alternatives to be carried forward (January 30, 2003)

Concurrence on the preferred alternative (Concurrence Point Meeting No. 4) will be sought following the Commission's approval of the preferred alternative.

## B. PUBLIC INVOLVEMENT

An extensive public involvement program was used during the development of this U.S. 20 EA in order to effectively engage the general public and interested parties in the Project. The key components of this program are outlined in the following sections.

### 1. Community Advisory Group

A Community Advisory Group (CAG) was established in 1998 for the U.S. 20 Concept Study from Old Highway Road to Devon Drive (see Chapter II, History of the Proposed Action), and meetings of the CAG continued during the U.S. 20 Capacity Improvement Study and during the development of this U.S. 20 EA. The CAG is made up of local residents, as well as business and community leaders representing the City, the County, Dubuque Chamber of Commerce, trucking interests, real estate interests, agricultural interests, and businesses interests.

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<sup>2</sup> Concurrence Point Meetings No. 1 and No. 2 were held prior to splitting of the project. However, these concurrence points did not need to be revisited as the purpose and need and alternatives considered did not change as a result of splitting of the project.

## CHAPTER VIII REFERENCES

- 7 CFR 658. Farmland Protection Policy Act.
- 23 CFR 772. Procedures for Abatement of Highway Traffic Noise and Construction Noise.
- 40 CFR 93.102 (2002). Applicability.
- 49 CFR 24. Uniform Relocation Assistance and Real Property Acquisition for Federal and Federally Assisted Programs.
- 567 IAC 61.3(455B) (1990). Surface Water Quality Criteria.
- 567 IAC 72.50(455B) (1986). Protected Streams.
- 16 USC 4601-4 to -11 et seq., as amended (1996). Land and Water Conservation Fund Act.
- 42 USC 4601 et seq., as amended (1989). Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.
- 49 USC 303 (1983). Policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites.
- American Society for Testing and Materials. E1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.  
<http://www.astm.org>.
- CEQ. November 29, 1978. "National Environmental Policy Act Regulations." Federal Register, Vol. 43, No. 230.
- City of Dubuque Fire Department. January 28, 2003. Letter from E. Daniel Brown, Fire Chief.
- Cowardin, Lewis M., et al. December 1979. *Classification for Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior, Washington DC.
- Dubuque County Assessor's Office. January 16, 2003. Personal Communication.
- Dubuque County EMA. January 28, 2003. Letter from Thomas I. Berger, Director.
- East Central Intergovernmental Association. Adopted September 23, 2002. Comprehensive Land Use Plan. Dubuque County, Iowa.
- East Central Intergovernmental Association and DMATS. Adopted August 17, 2000. 2020 Long Range Transportation Plan.

- Environmental Laboratory. January 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, MS.
- HDR Engineering. October 2003. Technical Memorandum for Environmental Justice Analysis.
- IIW Engineers and Surveyors, P.C. October 2002. *Phase I Environmental Site Assessment, Iowa Department of Transportation, U.S. 20 Corridor From Devon Drive, Dubuque to Peosta*.
- Iowa DNR. March 21, 2001.
- Iowa DNR. March 29, 2001. Personal communication with Sheri Walz, Air Quality Specialist.
- Iowa DOT. December 1975, revised April 1997. Policies and Procedural Manual. "Highway Traffic Noise Analysis and Abatement." Policy Number 500.07.
- Iowa DOT. July 1997. *Iowa in Motion*.
- Iowa DOT. 2000. 2000 Roadway Design Manual. Chapter 1, Section 1C-1, p. 3.
- Iowa DOT. December 2002. *Iowa Transportation Improvement Program*.
- Iowa DOT. March 21, 2003. Letter from Judy McDonald, Office of Location & Environment.
- Iowa DOT. June 3, 2003. Letter from Matt Donovan, Office of Location & Environment.
- Iowa State Highway Commission. November 1974. Corridor Planning Department. *Final Environmental Impact Statement and Location Study Report – Freeway 520, Hardin and Grundy Counties*. p. 11.
- "Legal Protection for Grant Assisted Recreation Sites, Section 6(f)(3) of the LWCF Act." 23 December 2002. [http://mail.chartermi.net/~duluthikes/lwcf\\_protect.htm](http://mail.chartermi.net/~duluthikes/lwcf_protect.htm).
- Limited Environmental Site Assessment of the Ward Property, Iowa Department of Transportation. July 2000. Prepared by Howard Green Company.
- Nash, Jan O. 2002. *U.S. 20 Capacity Improvement Study; Volume I: Intensive Level Historical and Architectural Survey*. Iowa City: Tallgrass Historians L.C.
- Phase I Environmental Site Assessment, Iowa Department of Transportation, U.S. 20 Corridor From Devon Drive, Dubuque to Peosta. October 2002. Prepared by IIW Engineers & Surveyors, P.C.
- Rogers, Leah. 2003. *U.S. 20 Capacity Improvement Study; Volume II: Archaeological Study*.

“Section 4f. Introduction: Related Statutes.” 23 December 2002.  
[http://www.kci.com/projects/4f/rel\\_statutes.htm](http://www.kci.com/projects/4f/rel_statutes.htm).

State Historical Society of Iowa. June 9, 2003. Letter from Lavon Grimes, SHPO Review & Compliance Coordinator.

Transportation Research Board. 2000. 2000 Highway Capacity Manual. Washington D.C.

USDA/Soil Conservation Service. 1985. Soil Survey of Dubuque County, Iowa.

USFWS. June 12, 2001. Letter from Wayne A. Tucker.

USFWS. 2002. Upper Mississippi River Tallgrass Prairie Ecosystem.  
<http://midwest.fws.gov/ecosys/upmiss.htm>.

USFWS. January 6, 2003. Letter from J.G. Millar.

**APPENDIX A**

**Agency Coordination**

March 15, 1981

MEMORANDUM FOR: To: Mr. J. Edgar Hoover

FROM: Mr. [Name] Director, Community Planning and Development Division

SUBJECT: Draft Environmental Assessment/Draft Environmental Impact Statement

As this Office no longer has the staff expertise to review the attached document, we are returning it to you without comment. We regret any inconvenience this might cause.



U.S. Department of Housing and Urban Development  
Nebraska State Office  
Executive Tower Centre  
10909 Mill Valley Road  
Omaha, Nebraska 68154-3955

March 15, 2001

MEMORANDUM FOR: To Whom It May Concern

FROM: *Gregory A. Bevirt*  
Gregory A. Bevirt, Director, Community Planning  
and Development Division

SUBJECT: Draft Environmental Assessment/Draft Environmental  
Impact Statement

As this Office no longer has the staff expertise to review the  
attached document, we are returning it to you without comment. We  
regret any inconvenience this might cause.

INSERT REGULATORY OFFICE AND POC  
U.S. Army Corps of Engineers, Rock Island District  
ATTN: CEMV/OC-P (S&V) (A&D)  
P.O. Box 2004, Clark Tower Building  
Rock Island, IL 61204

If you have any questions, please contact Mr. Kevin Reed of our staff at (402) 221-4204.  
Thank you for the opportunity to review this proposal.

Sincerely,

Charles M. Griffin  
Chief, Environmental and Economic Section  
Planning Programs and Project  
Management Division





REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CORPS OF ENGINEERS, OMAHA DISTRICT  
215 NORTH 17TH STREET  
OMAHA, NEBRASKA 68102-4978

March 15, 2001

Planning, Programs and Project Management Division

Mr. William Sharp  
HDR Engineering, Inc.  
8404 Indian Hills Drive  
Omaha, Nebraska 68114-4049

Dear Mr. Sharp:

Thank you for your request for comments regarding the Highway U.S. 20 Capacity Improvement Study. Dubuque is outside of the Omaha District civil works boundary. Your request for comments has been forwarded to the Rock Island District at the following address:

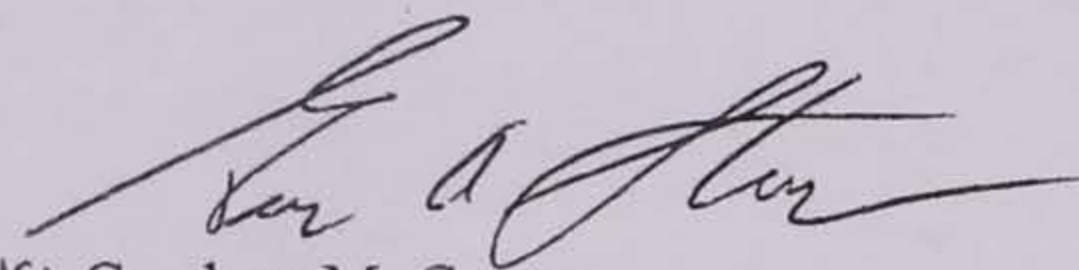
U.S. Army Corps of Engineers, Rock Island District  
ATTN: CEMVR-PM-M  
P.O. Box 2004, Clock Tower Building  
Rock Island, IL 61204-2004

If construction activities involve any work in waters of the United States, a Section 404 permit may be required. For a detailed review of permit requirements, final project plans should be sent to:

**INSERT REGULATORY OFFICE AND POC**  
U.S. Army Corps of Engineers, Rock Island District  
ATTN: CEMVR-OD-P (Steve Vanderhorn)  
P.O. Box 2004, Clock Tower Building  
Rock Island, IL 61204-2004

If you have any questions, please contact Ms. Katie Reed of our staff at (402) 221-4604. Thank you for the opportunity to review this proposal.

Sincerely,

  
For: Candace M. Gorton  
Chief, Environmental and Economics Section  
Planning, Programs and Project  
Management Division



United States  
Department of  
Agriculture

Natural  
Resources  
Conservation  
Service

210 Walnut Street  
693 Federal Building  
Des Moines, IA 50309-2180

March 19, 2001

Re: Highway U.S. 20 Capacity  
Improvement Study  
Dubuque County, Iowa  
Iowa DOT Project Number  
NHS-20-9(121)-19-31

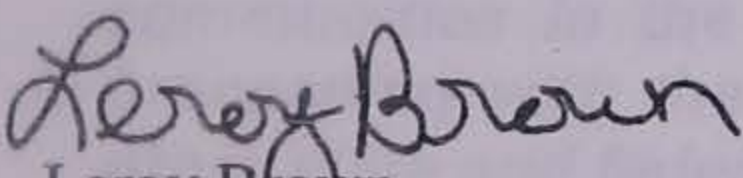
Mr. William H. Sharp, P.E.  
HDR Engineering, Incorporated  
8404 Indian Hills Drive  
Omaha, Nebraska 68114-4049

Dear Mr. Sharp:

I have reviewed the HDR Engineering, Inc. Capacity Improvement Study of U.S. 20 in Dubuque County, Iowa, you submitted for the Iowa Department of Transportation. The USDA Natural Resources Conservation Service (NRCS) does not have any specific statements at this time. As planning progresses, NRCS will be glad to comment on more specific alternatives being presented. I recommend that you contact the local NRCS office listed below for site specific information including initiation of the Farmland Conversion Impact Rating, Form 1006.

Gregory Martin  
District Conservationist  
204 South Center Avenue  
Post Office Box 27  
Epworth, Iowa 52045-0027  
(319) 876-3418

Sincerely,

  
Leroy Brown  
State Conservationist

STEVE FENNINGTON  
IOWA DEPARTMENT OF NATURAL RESOURCES



DEPARTMENT OF NATURAL RESOURCES

THOMAS J. VILSACK, GOVERNOR  
GALLY J. PEDERSON, LT. GOVERNOR

JEFFREY R. VONK, DIRECTOR

March 21, 2001

Mr. Willilam H. Sharp  
HDR Engineering Inc.  
8404 Indian Hills Drive  
Omaha, NE 68114-4049

RE: Capacity Improvement Study of US 20, Peosta to Dubuque, Dubuque Co.

Dear Mr. Sharp:

Thank you for inviting our comments on the impact of the above referenced project on protected species and rare natural communities.

We have searched our records of the project area and found no records of rare species or significant natural communities. While our data are not the result of thorough field surveys, based on the information provided, we do not think the project will affect protected species or rare natural communities. Thus, we do not recommend further field surveys of the site. However, if listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This letter is a record of review for protected species and rare natural communities in the project area. It does not constitute a permit and before proceeding with the project, you may need to obtain permits from the DNR or other state and federal agencies.

If you have any questions about this letter or if you require further information, please contact Keith Dohrmann at (515) 281-8967.

Sincerely,

STEVE PENNINGTON  
IOWA DEPARTMENT OF NATURAL RESOURCES

SP:kd

01-143L.doc



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DEPARTMENT OF NATURAL RESOURCES

THOMAS J. VILSACK, GOVERNOR  
SALLY J. PEDERSON, LT. GOVERNOR

JEFFREY R. VONK, DIRECTOR

March 29, 2001

Mr. William Sharp  
HDR Engineering  
8404 Indian Hills Drive  
Omaha, NE 68114-4049

Re: Highway U.S. 20 Capacity Improvement Study  
Dubuque County, Iowa – Peosta Interchange though Devon Drive  
Iowa DOT Project Number NHS-20-9(121)—19-31

Dear Mr. Sharp:

I am writing in response to the recent correspondence that was received concerning the above referenced project, the Highway U.S. 20 Capacity Improvement Study.

The area is in attainment for all criteria pollutants as mandated in the Clean Air Act of 1990. Current requirements would not impede construction. At this time the Environmental Protection Agency (EPA) does not have any proposed criteria pollutant requirements to prevent construction, however, we are unable to predict future EPA requirements.

Demolition of any buildings will trigger the National Emission Standards for Hazardous Air Pollutants (NESHAPS) for asbestos. Regulations apply before renovation and demolition projects begin. Before renovation or demolition, a thorough asbestos inspection is required. Thorough inspection means all suspect asbestos containing materials require sampling and laboratory analysis or are assumed to contain asbestos and handled in accordance with the regulation. All facility demolitions require submission of a two-page demolition notification form to the Department of Natural Resources (DNR), even if no asbestos is found. Upon postdate of submitted forms, ten working days must pass before any disturbance of asbestos containing material takes place. Before demolition or renovation occurs, asbestos-containing materials must be removed.

Please also keep in mind the current state requirements on open burning and fugitive dust, 567 Iowa Administrative code Ch. 23.2 and 23.3 (2) "c", respectively.

The Department's Asbestos Program Coordinator is Marion Burnside, (515) 281-8443. If you have any additional questions, please feel free to contact me at (515) 281-4927.

Sincerely,

Sheri Walz, Air Quality Specialist



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

APR 09 2001

William H. Sharp, P.E.  
Project Manager  
HDR Engineering, Inc.  
8404 Indian Hills Drive  
Omaha, Nebraska  
68114-4049

Re: Highway U.S. 20 Capacity Improvement Study

Dear Mr. Sharp:

The Environmental Protection Agency's National Environmental Policy Act (NEPA) Team has received and acknowledges your notice of intent to prepare an Environmental Assessment for the above mentioned project, dated March 5, 2001. Thank you for notifying the Agency of this action. At this time we will reserve the right for comments until an Environmental Assessment has been prepared. At that time, if you would like to request a formal response, please forward the document to our office.

The Agency does recommend; however, that as HDR Engineering, Inc. proceeds with implementation of the proposed plan, continued consideration be given to ensuring there are minimal impacts to the natural and human environment and that cumulative impacts have been addressed.

If you have additional questions or concerns, please feel free to contact me at (913) 551-7168.

Sincerely,

*Naima Halim Chestnut*

Naima Halim Chestnut  
NEPA Reviewer  
Environmental Services Division





REPLY TO  
ATTENTION OF:

DEPARTMENT OF THE ARMY  
ROCK ISLAND DISTRICT, CORPS OF ENGINEERS  
CLOCK TOWER BUILDING - P.O. BOX 2004  
ROCK ISLAND, ILLINOIS 61204-2004

April 13, 2001

Planning, Programs, and  
Project Management Division

Mr. William H. Sharp, P.E.  
Project Manager  
HDR Engineering, Inc.  
8404 Indian Hills Drive  
Omaha, Nebraska 68114-4049

Dear Mr. Sharp:

I received your letter dated March 5, 2001, concerning Highway U.S. 20 Capacity Improvement Study, Dubuque County, Iowa, Peosta Interchange thru Devon Drive, Iowa DOT Project Number NHS-20-9(121)-19-31. Rock Island District staff reviewed the information you provided and have the following comments:

- a. Your proposal does not involve Corps of Engineers (Corps) administered land in the study area shown; therefore, no further Corps real estate coordination is necessary.
- b. Any proposed placement of fill or dredged material into waters of the United States (including wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. A Section 404 permit will be required for this project. When detailed information is available, please complete and submit the enclosed application packet to the Rock Island District for processing (enclosure). The application should include determinations of wetlands and other waters of the United States, size estimations of impacts to those areas, and wetland types and relative functions.

Prior to completing the permit review process and in compliance with the Clean Water Act Section 404(b)(1) guidelines, we also require sequential mitigation involving an alternatives analysis, minimization of impacts, and compensatory mitigation for any unavoidable impacts. The alternatives analysis must demonstrate how you will avoid impacts by selecting the least environmentally damaging practicable alternative based on wetland sizes, locations, types, and relative functions. Minimization of impacts should consist of a list of appropriate and practicable steps to minimize unavoidable adverse impacts. Compensatory mitigation must include plans to restore or create wetlands to mitigate unavoidable project wetland impacts. If you have any questions regarding permit requirements under Section 404 of the Clean Water Act, please contact Mr. Neal Johnson of our Regulatory Branch. You may reach Mr. Johnson by writing to our address above, ATTN: Regulatory Branch (Neal Johnson), or by telephoning 309/794-5379.

c. The Responsible Federal Agency should coordinate with the Iowa State Historic Preservation Officer, Capitol Complex, Des Moines, Iowa 50319 to determine impacts to historic properties.

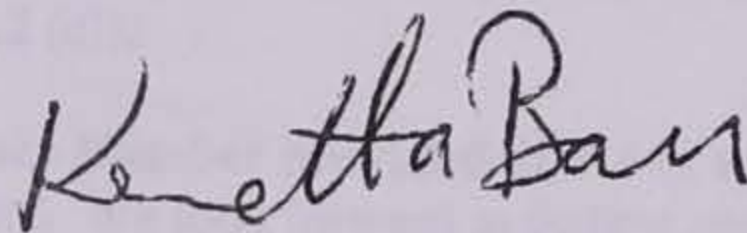
d. The Rock Island Field Office of the U.S. Fish and Wildlife Service should be contacted to determine if any federally listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Rock Island Field Office address is: 4469 - 48th Avenue Court, Rock Island, Illinois 61201. Mr. Rick Nelson is the Field Supervisor. You can reach him by calling 309/793-5800.

e. Portions of the proposed project may impact areas designated as floodway on the National Flood Insurance Program (NFIP) Flood Insurance Rate Maps (FIRMs). You should coordinate your project with Region VII of the Federal Emergency Management Agency. Ms. Beth A. Freeman is the Regional Director and her address is: Federal Emergency Management Agency, Region VII, 2323 Grand Boulevard, Suite 900, Kansas City, Missouri 64108-2670.

No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Mr. Randy Kraciun of our Environmental Analysis Section, telephone 309/794-5174.

You may find additional information about the Corps Rock Island District on our web site at <http://www.mvr.usace.army.mil>. To find out about other Districts within the Corps, you may visit web site: <http://www.usace.army.mil/divdistmap.html>.

Sincerely,



Kenneth A. Barr  
Chief, Economic and Environmental  
Analysis Branch

Enclosure

# STATE HISTORICAL SOCIETY OF IOWA

*Where past meets future*

May 7, 2001

In reply refer to:  
R&C#: 010331126

William H. Sharp, P.E.  
HDR Engineering, Inc.  
8404 Indian Hills Drive  
Omaha, Nebraska 68114-4049

RE: FHWA - DUBUQUE COUNTY - NHS-20-9(121)-19-31 - CULTURAL RESOURCES ASSESSMENT LETTER REPORT FOR US 20 FROM SWISS VALLEY ROAD TO CRESCENT RIDGE DRIVE IN DUBUQUE - ENVIRONMENTAL ASSESSMENT PREPARATION

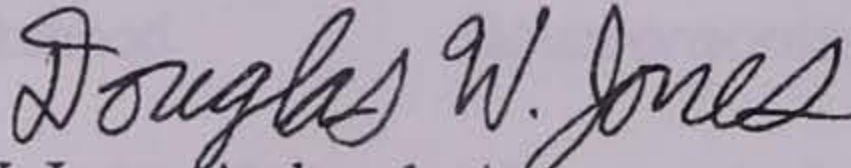
Dear Mr. Sharp,

Thank you for notifying our office about the above referenced proposed project. We understand that this project will be a federal undertaking and will need to comply with Section 106 of the National Historic Preservation Act. We look forward to consulting with you, the Iowa Department of Transportation, and the Federal Highway Administration on the Area of Potential Effect for this proposed project and whether this project will affect any significant historic properties under 36 CFR Part 800.4. We will need the following types of information for our review:

- The Area of Potential Effect (APE) for this project needs to be adequately defined (36 CFR Part 800.16 (d)).
- Information on what types of cultural resources are or may be located in the APE (36 CFR Part 800.4).
- The significance of the historic properties in the APE in consideration of the National Register of Historic Places Criteria.
- A determination from the responsible federal agency of the undertaking's effects on historical properties within the APE (36 CFR Part 800.5).

If your agency will be the primary contact for this project, the responsible federal agency which we presume is the Federal Highway Administration, needs to notify us that they have authorized you to consult with our office on this project in accordance with 36 CFR Part 800.2(c)(5). Also, the responsible federal agency will need to identify and contact all potential consulting parties that may have an interest in historic properties within the project APE (36 CFR 36 Part 800.2 (c)).

Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project. We look forward to further consulting with you, the Iowa Department of Transportation, and the Federal Highway Administration on this project. Should you have any questions please contact me at the number below.

Sincerely, 

Douglas W. Jones, Archaeologist  
Community Programs Bureau  
(515) 281-4358

cc: Gerald Kennedy, FHWA  
Steve Larson, NEPA Coordinator, IDOT, Ames  
Randall Faber, Office of Environmental Services, IDOT, Ames  
Brad Hofer, Office of Design, Corridor Development, IDOT, Ames

IOWA HISTORICAL BUILDING

600 East Locust • Des Moines, Iowa 50319-0290  
Phone: (515) 281-6412 • Fax: (515) 242-6498 or (515) 282-0502  
[www.state.ia.us/government/dca](http://www.state.ia.us/government/dca)

Tuesday, October 07, 2009

American Gothic House  
Eldon

Blood Run NHL  
Larchwood

Centennial Building  
Iowa City

Matthew Edel Blacksmith Shop  
Haverhill

Abbie Gardner Cabin  
Arnolds Park

Iowa Historical Building  
Des Moines

Montauk Governor's Home  
Union Sunday School  
Clermont Museum  
Clermont

Plum Grove Governor's Home  
Iowa City

Toolesboro Indian Mounds  
Toolesboro

Western Historic Trails Center  
Council Bluffs





# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Rock Island Field Office (ES)

4469 - 48th Avenue Court

Rock Island, Illinois 61201

Tel: 309/793-5800 Fax: 309/793-5804

IN REPLY REFER  
TO:

FWS/RIFO

RECEIVED  
JUN 15 2001  
OFFICE OF ENVIRONMENTAL SERVICES

June 12, 2001

Mr. Manu M. Chacko, Transportation Engineer  
Federal Highway Administration  
105 6<sup>th</sup> Street  
Ames, Iowa 50010-6337

2.2

Dear Mr. Chacko:

This letter is in regard to the Notice of Intent for US-20 Capacity Improvement Study for the Environmental Impact Statement regarding the Peosta Interchange and Devon Drive in the City of Dubuque in Dubuque County, Iowa. We have the following comments.

To facilitate compliance with Section 7(c) of the Endangered Species Act of 1973, as amended, Federal agencies are required to obtain from the Fish and Wildlife Service information concerning any species, listed or proposed to be listed, which may be present in the area of a proposed action. Therefore, we are furnishing you the following list of species which may be present in the concerned area:

<u>Classification</u>	<u>Common Name</u>	<u>Scientific Name</u>	<u>Habitat</u>
Threatened	Bald eagle	<i>Haliaeetus</i> <i>leucocephalus</i>	Breeding, Wintering
Endangered	Iowa pleistocene snail	<i>Discus macclintocki</i>	North-facing algific talus slopes of the driftless area
Threatened	Northern monkshood	<i>Aconitum</i> <i>novaboracense</i>	North-facing slopes of the driftless area, hillside seeps

The threatened bald eagle (*Haliaeetus leucocephalus*) is listed as breeding in Dubuque County, Iowa. It is also listed as wintering along large rivers, lakes and reservoirs in Dubuque County. During the winter, this species feeds on fish in the open water areas created by dam tailwaters, the warm water effluents of power plants and municipal and industrial discharges, or in power plant cooling ponds. The more severe the winter, the greater the ice coverage and the more concentrated the eagles become. They roost at night in groups in large trees adjacent

Mr. Manu M. Chacko, Transportation Engineer

2

to the river in areas that are protected from the harsh winter elements. They perch in large shoreline trees to rest or feed on fish. There is no critical habitat designated for this species. The eagle may not be harassed, harmed or disturbed when present nor may nest trees be cleared.

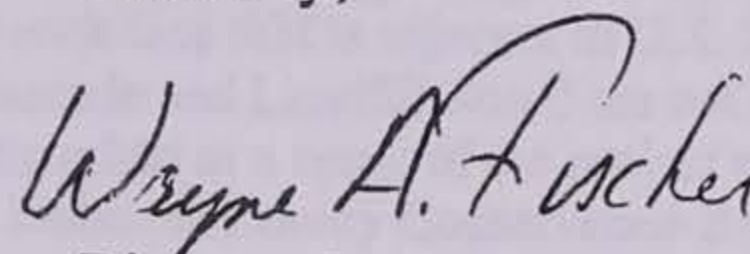
The endangered Iowa pleistocene snail is found on north-facing slopes of the driftless area in Dubuque County, Iowa. It occupies algific (cold producing) talus slopes at the outlet of underground ice caves along limestone bluffs within a narrow regime of soil moisture and temperature. There is no critical habitat designated. It must not be harmed, harassed or disturbed.

The northern monkshood (*Aconitum novaboracense*) is listed as threatened in Dubuque County, Iowa. It occupies north-facing slopes in the driftless area of northeast Iowa and one slope along the Iowa River. There is no critical habitat designated for this species. Federal regulations prohibit any commercial activity involving this species or the destruction, malicious damage or removal of this species from Federal land or any other lands in knowing violation of state law or regulation, including state criminal trespass law.

These comments provide technical assistance only and do not constitute the report of the Secretary of the Interior on the project within the meaning of Section 2(b) of the Fish and Wildlife Coordination Act, do not fulfill the requirements under Section 7 of the Endangered Species Act, nor do they represent the review comments of the U.S. Department of the Interior on any forthcoming environmental statement.

Thank you for the opportunity to provide comments early in the planning process. If you have any additional questions or concerns, please contact Heidi Woeber of my staff.

Sincerely,



Richard C. Nelson  
Supervisor

cc: IaDOT (Rost)  
RO/AES

G:\WP\_Docs\HEIDINDUBUQUE.CO



ONE COMPANY Many Solutions

December 2, 2002

United States Department of Interior  
 Fish and Wildlife Service, Ecological Services  
 Mr. Richard C. Nelson, Supervisor  
 Rock Island Field Office  
 4469 48<sup>th</sup> Ave. Court  
 Rock Island, Illinois 61201

**NO OBJECTION**

U.S. Fish & Wildlife Service  
 Rock Island, Illinois

*J. Miller*  
 Supervisor

1/6/03  
 Date

Dear Mr. Nelson:

This letter is in regard to the Environmental Assessment for the U.S. 20 Capacity Improvement Study from the Peosta Interchange to the Northwest Arterial in Dubuque County, Dubuque, Iowa.

Enclosed is a copy of your letter dated June 12, 2001, identifying species in the project area that are listed, or proposed to be listed, as threatened or endangered in accordance with Section 7(c) of the Endangered Species Act of 1973, as amended. An initial site assessment conducted by HDR Engineering, Inc. (HDR) and other information provided the following conclusions for each listed species:

- **Bald Eagle** – While some large trees are present in the study corridor, the alternatives being evaluated do not remove any large trees that are adjacent to or near large rivers, lakes, or reservoirs (see attached figures). Additionally, no known roosts or nests are present in the study area (HDR site assessment, Iowa Department of Natural Resources (IDNR) letter dated March 21, 2001). While eagles can be found in any large tree, the minimal number of trees removed combined with the location of the trees (adjacent to U.S. 20 and away from a water source) makes their presence in the study corridor unexpected.
- **Iowa Pleistocene snail and northern monkshood** – Habitat for these species is listed as north-facing algific talus slopes of the driftless areas, and hillside seeps (for the monkshood only). No evidence of habitat supporting those species was found in the study corridor. The exposed rock face that is adjacent to U.S. 20 in one portion of the study area (between North Cascade and Landfill Road) are not north facing, did not have observed seeps, nor will be disturbed as a result of the project under either alternative. In addition, HDR contacted the Dubuque County Conservation Board to confirm this finding. The Dubuque County Conservation Board said they feel the study area is free of threatened and endangered species and the habitat that supports them, but recommended further consultation with IDNR.
- Enclosed is a copy of the March 21, 2001 IDNR letter, which indicates their records show no rare species or significant natural communities within the project area. The Iowa Department of Natural Resources did not recommend further field surveys in the project area.

Based on HDR's site assessment, consultation with the Dubuque County Conservation Board, and the recommendation from Iowa Department of Natural Resources, we are requesting a letter of No Objection from United States Fish and Wildlife Service (USFWS) regarding this project. HDR is

DEC - 4

HDR Engineering, Inc.

8404 Indian Hills Drive  
 Omaha, NE 68114-4098

Phone: (402) 399-1000  
 Fax: (402) 399-1238  
 www.hdrinc.com



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United States Department of the Interior

Page.2

December 2, 2002

requesting this letter with the understanding that your office would be notified if the alternatives were modified in such a manner that would alter the initial site assessment. Additionally, the USFWS will have the opportunity to comment on the Draft Environmental Assessment for the project when that is complete.

In addition to the two referenced letters, we have enclosed maps of the project area and project alternatives. If you have any questions regarding this matter, please contact either William Sharp at 402/399-1074 or me at 402/399-1186.

Sincerely,

Matt Pillard, AICP  
HDR Engineering, Inc.

Enclosures

HDR Engineering, Inc.

8404 Indian Hills Drive  
Omaha, NE 68114-4098Phone: (402) 399-1000  
Fax: (402) 399-1238  
www.hdrinc.com

# STATE HISTORICAL SOCIETY OF IOWA

*Where past meets future*

May 18, 2002

In reply refer to:

R&C#: 010331126

William H. Sharp, P.E.  
Project Manager  
HDR Engineering, Inc.  
8404 Indian Hills Drive  
Omaha, Nebraska 68114-4049

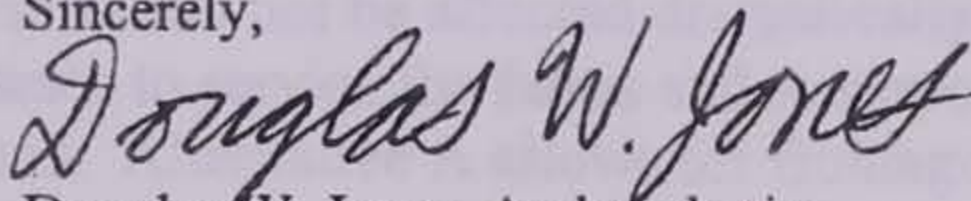
RE: FHWA – DUBUQUE COUNTY – NHS-20-9(121)—19-31 – CULTURAL RESOURCES ASSESSMENT LETTER REPORT FOR US 20 FROM SWISS VALLEY ROAD TO CRESCENT RIDGE DRIVE IN DUBUQUE – ENVIRONMENTAL ASSESSMENT PREPARATION – AGENCY CONCURRENCE POINT 1 & 2 MEETING MINUTES AND REQUEST FOR RESPONSE

Dear Mr. Sharp,

We would like to extend our appreciation for the invitation to participate in the Agency concurrence points. Unfortunately, we are not able to concur with these findings at this time because we have not yet received the Phase I cultural resource reports for the project area. We have limited information available at this time for consideration of the alignment alternatives. Particularly, we do not currently know whether there are any significant historic properties within any of the alternative alignments. Therefore, we will be providing further comments concerning the cultural resource coordination for this project to you, the Iowa Department of Transportation, and the Federal Highway Administration when the surveys are provided to our office.

**Please reference the Review and Compliance Number provided above in all future submitted correspondence to our office for this project.** We look forward to further consulting with you, the Iowa Department of Transportation, and the Federal Highway Administration on this project. Should you have any questions please contact me at the number below.

Sincerely,



Douglas W. Jones, Archaeologist  
Community Programs Bureau  
(515) 281-4358

cc: Gerald Kennedy, FHWA  
Steve Larson, NEPA Coordinator, IDOT, Ames  
Randall Faber, Office of Environmental Services, IDOT, Ames  
Brad Hofer, Office of Design, Corridor Development, IDOT, Ames

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[www.uiowa.edu/~shsi/index.htm](http://www.uiowa.edu/~shsi/index.htm)



## Dubuque County Emergency Management Agency

11 West Ninth Street • Dubuque, IA 52001-4839

Phone (563) 589-4170 • Fax (563) 589-4208

E-Mail: dbqema@mwci.net

Thomas I. Berger, *Director*

January 28, 2003

Brock Hoegh  
Environmental Planner  
8404 Indian Hills Drive  
Omaha, NE 68114-4098

Dear Mr. Hoegh,

After reviewing your plans for the Highway 20 project from Peosta to the Northwest Arterial, I have some concerns that I will list by area. I believe that response time to some of the farms and homes in the area will be minimally effected. I do believe by eliminating the at-grade intersections between Sundown Road and the Northwest Arterial, it will decrease our accidents substantially in this area. In all areas where traffic signals will be erected, consideration needs to be made to install the 3M Opticom Pre-emption system. We are working toward completing the 3M system in all major intersections of the City of Dubuque. Highway 20 is used as a primary route to local trauma centers and the 3M Opticom system will vastly improve our response capabilities.

I feel the following will be some concerns for each portion of the project.

### Sundown Road to Thunder Hills Road

The preferred alternative for emergency service in this area would be alternative A. Although fire response would not be affected dramatically, ambulance service would need to be rerouted a longer distance to service the farms and to respond to the North or South of Highway 20 on Cox Springs Road. Alternative A allows for frontage roads to access Cox Springs Road from the Thunder Hills interchange. Alternative B only allows an overpass and would require the ambulance to reroute on Sundown Road either through Peosta or by traveling South on other roads.

### Cottingham Road to North Cascade Road

On this particular section of roadway, it is imperative that Alternative A be chosen. All emergency services that service this entire area would respond on Highway 20 from the West. With the new subdivision being located on the Higley Farm (200 lots) and the Hartman Farm (74 Lots), to reroute the traffic would definitely slow down the response of fire and ambulance. If alternative B is picked, emergency traffic would need to be rerouted on gravel roads in order to service the Cottingham area as well as the new subdivisions. We would have to travel an extra 4-5 miles to reach the Cottingham Road area. We drove our alternative routes and alternative B

would add approximately 10-15 minutes to our response time, depending on the type of apparatus. The roads needed to travel for Alternative B are not as safe for emergency vehicles and the safety of responders could be in danger. By placing the interchange further west at Swiss Valley Road and offering the frontage roads, our response time to the North Cascade Road, Westridge Lane, Lost Canyon Trailer Park, and Siegert Lane area would not be impacted as severe as it would be with Alternative B. We would only have a minimum delay in servicing the Cottingham Road area, as the frontage road would allow us to travel west to service this area from Highway 20 and Swiss Valley Road. This alternative would also decrease the response time to the new proposed subdivisions. Choosing alternative B on this portion of the preliminary plan will have a detrimental impact on response times for Fire and Ambulance services.

#### Landfill Road to Seippel Road

In looking at this area, I see the second alternative as being the best for emergency services. The area will be serviced from the Seippel Road area for some fire and from the Highway 20 East for the remaining portion. Fire response would be minimally extended as the second fire department may respond from the west. By choosing the second option for the interchange, the vehicles entering from the East would only have to exit the highway, cross the arterial and then make a left turn to respond to that area. In alternative 1 or A, there would be some back tracking required as well as two additional hard turns. This alternative could increase response times.

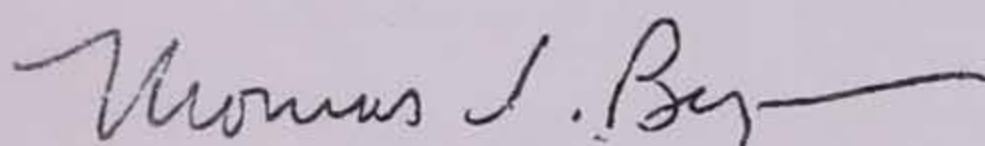
#### Old Highway to Menard Court

The only suggestion for this area would be to add the 3M Opticom Pre-emption system to the lights for emergency vehicles. This system is being installed in the City of Dubuque and all County Emergency Response Agencies will be able to purchase emitters for their ambulances to increase their safety en route to the hospital. This will also decrease the travel time to the hospital as the controlled intersections would favor the emergency vehicles. I believe the City of Dubuque Fire Chief will also comment on this area as the effected areas are in his response district.

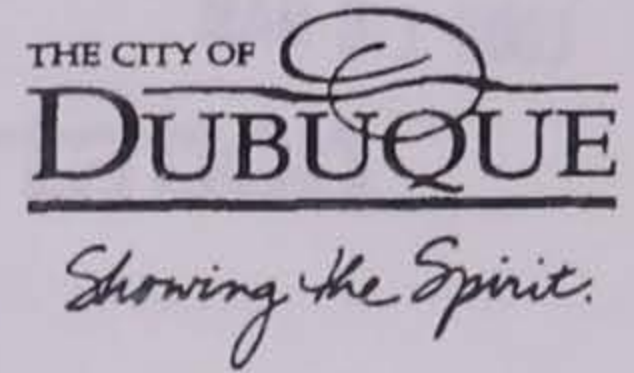
Overall, we encourage the improvement of this portion of Highway 20. We have seen an increase in auto collision responses to this area over the past few years – many personal injury accidents. We also see development rapidly moving west on this corridor and that will mean more vehicles and people in the area. That also means more calls for service for our fire and ambulance agencies.

I would appreciate if you could let me know when your public hearings will be held in our area or any other meetings pertaining to this project. If I may be of any further assistance, please feel free to contact me at 563-589-4170. I thank you for the opportunity to comment on this project and look forward to providing comments to you in the future.

Sincerely yours,



Thomas I. Berger, Director  
Dubuque County Emergency Management Agency



Fire Department  
11 West 9th Street  
Dubuque, Iowa 52001-4839  
(563) 589-4160 office  
(563) 589-4209 fax  
dbrown@cityofdubuque.org

E. Daniel Brown, Chief

January 28, 2003

HDR, Inc.  
ATTN: Mr. Brock Hoegh  
8404 Indian Hill Drive  
Omaha, NE 68114-4098

Dear Mr. Hoegh,

I reviewed the plans for the Highway 20 corridor that you sent. The only plans that affect the City of Dubuque Fire Department or Figure IV-6 and IV-7. As I stated in our phone conversation the City requires traffic light pre-emption equipment be installed this will involve the 2 intersections on figure IV-7. This equipment needs to be 3-M Opticom and specifications are available from City Engineering Department. On Figure IV-6, the second alternative would provide for less 90-degree turns when accessing the area of Barrington Lakes from the East. This would affect the response times to these areas.

If I can be of any further assistance feel free to contact me.

Sincerely,

E. Daniel Brown  
Fire Chief

EDB/jl



MAR 3 1 2003



# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1795

FAX 515-239-1726

March 21, 2003

Ref. No. NHS-20-9(121)—19-31

Dubuque County

Primary

Doug Jones  
Review and Compliance  
Community Programs Bureau  
State Historical Society of Iowa  
600 East Locust  
Des Moines, IA 50319

R&C# 010331126

Dear Doug:

**RE: Phase I Archaeology; U.S. 20, Peosta-Devon Dr.**

Enclosed for your review and comment are the plans and specifications for the U.S. 20 Capacity Improvement Study from the town of Peosta to Devon Drive in Dubuque County, Iowa. The surveyed corridor extends from the Peosta interchange on U.S. 20 in sections 9 and 16, T88N-R1E, Vernon Township, east along current U.S. 20 into the City of Dubuque, where the corridor terminates in sections 26 and 35, T89N-R2E, just east of Devon Drive, all in Dubuque County Iowa. The corridor extends through the eastern portion of Vernon Township, the extreme northwest corner of Table Mound Township, and the southern portion of Dubuque Township.

The Area of Potential Effect (APE) consists of a variable-width corridor on both sides of current U.S. 20 generally extending out 500 feet (151.5 m) from either edge of the current U.S. 20 roadway but including areas that extend out a greater distance to accommodate new access roads and re-designed interchanges. The total area surveyed for cultural resources within the entire U.S. 20 study area consisted of approximately 1,488 ac (595 ha; 6,207,796 m<sup>2</sup>), with 1,212 subsurface tests excavated.

A total of 45 archaeological sites were recorded within the proposed APE. These sites include 22 prehistoric sites, six multi-component prehistoric and historic period sites, and 17 historic sites. Of the 45 sites, 38 sites were concluded to not be eligible for the National Register. Five sites were concluded to be potentially eligible for the National Register of Historic Places and may warrant Phase II testing or further documentation if the sites cannot be avoided by the proposed U.S. 20 project. These potentially historic sites were 13DB763, 13DB795, 13DB796, 13DB797, and 13DB798. Refer to Volume I, Site Management Summary Table (pg. 94-96) for site descriptions. Refer to Volume II (pg. A-18, A-19, A-20) for site map locations. Two sites were not evaluated. This included site 13DB782 and 13DB759. If they are impacted, further investigation is recommended.

The project proposes to close the current driveway entrance to the historic farmstead (31-04596) from US 20 and re-establish the original driveway. The restored driveway will not adversely affect the historic site if the historic route is followed and constructed to match the historic width and form as much as possible.

Also note that site 13DB790 is an archaeology site that was determined individually ineligible for the National Register, however is a component of an eligible architectural site 31-04596. The archaeology component consists of four features, a road swale that represents the historic

Doug Jones  
March 21, 2003  
U.S. 20 Peosta - Devon Dr. in Dubuque

driveway into the farmstead and three quarry pits from which the limestone used in the foundations of the standing buildings were obtained.

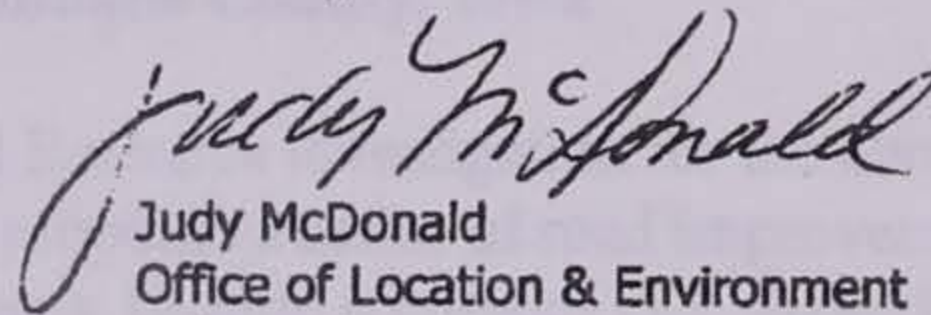
The project as presently proposed will have an adverse affect on site 13DB763, which is located in the NE ¼ section 15, T88N-R1E. The site is positioned at the west end of the proposed interchange a mile east of Peosta. This site cannot be avoided. The resolution of adverse effects will be determined according to 36CFR800.6.

Sites 13DB795, 13DB796, 13DB797 and 13DB798 are located within the east segment of the corridor, which is not part of the currently proposed project. The east segment will be developed as a separate project. The four sites will be taken into consideration as the project is developed and further investigated if impacted.

Based on the cultural resource reports for this corridor and the preferred plan, the project will have an adverse affect upon site 13DB763. If you agree with the above-described determinations, please signify your agreement by signing the concurrence line below. If you prefer, respond by separate letter.

If you have any question or need further information please don't hesitate to contact me.

Sincerely,

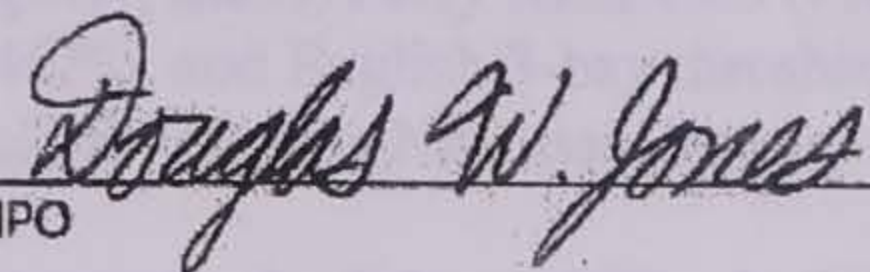


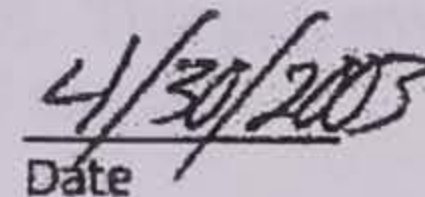
Judy McDonald  
Office of Location & Environment  
[judy.mcdonald@dot.state.ia.us](mailto:judy.mcdonald@dot.state.ia.us)

JM/DS  
Enclosure

cc: Richard Kautz, District 6  
Kris Riesenber, OLE  
Leah Rogers, Tallgrass Historians  
Brad Hofer, OLE

Concur:

  
SHPO

  
Date

Comments:



# Iowa Department of Transportation

Brad H.  
Location

800 Lincoln Way, Ames, Iowa 50010

515-239-1097  
515-239-1726 FAX

JUN 09 2003

**RECEIVED**

June 3, 2003

SEP 04 2003

Ref. NHS-20-9(121)- -19-31  
PIN: 90-31-020-060  
Dubuque County  
Primary

**OFFICE OF LOCATION & ENVIRONMENT**

Ralph Christian  
Review and Compliance  
Bureau of Historic Preservation  
State Historical Society of Iowa  
600 East Locust  
Des Moines, IA 50319

R&C: 010331126

Dear Ralph:

**RE: U.S. 20 between Devon Drive in Dubuque and the City of Peosta:  
Architectural and Historical Survey- Dubuque County, Iowa**

Enclosed for your review is the Phase I Cultural Resource investigation for the above-mentioned federal funded project. This project proposes a series of road improvements along U.S. Highway 20, which includes widening a 12-mile section of U.S. 20 and improving road connections.

A total of 111 properties were evaluated for this study. Of these resources, 74 were determined to be less than 50 years old and were determined not eligible for the National Register. Of the remaining 37 resources, which are older than 50 years, only two were determined eligible for the National Register.

The first property, the N. Perry farmstead (Property 31-04618), includes an Italianate house (31-04619), and English 3-bay threshing barn (31-04620). This property was determined eligible for the National Register under Criterion C and D.

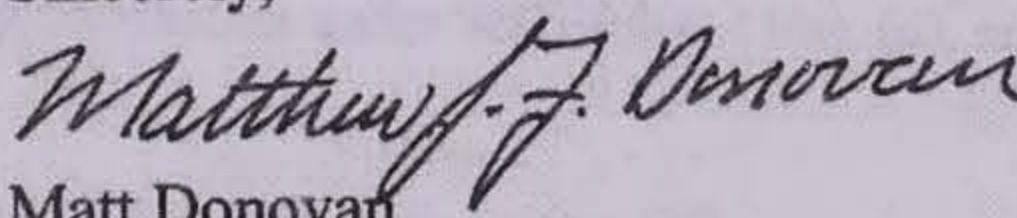
The second property, the John and Elizabeth Jones farmstead (31-04596), includes a house (31-04597) and a side-entrance barn (31-04598). This property was determined eligible for the National Register under Criterion C.

Present plans for the U.S. 20 project call for the re-establishment of the historic way to enter and view the Jones farmstead farm. The old-route to the Jones Farmstead was investigated by Leah Rogers in 2002, and was recorded as part of a historic archaeological site 13DB790. This site was determined not eligible for the National Register.

As recommended in the archaeological investigation, the re-established drive will follow the historic route as much as possible and closely approximate the width of the old drive way. With the exception the re-establishment of the original driveway to the Jones Farmstead, both eligible properties will be avoided by construction activities.

Base on the findings of this survey, *with the understanding that the properties determined eligible for the National Register will be avoided*, the determination is that **No Historic Properties Affected**. If you concur with this determination and the finding of this survey, please sign the concurrence line below, add your comments and return this letter. If you have any questions, please feel free to contact me.

Sincerely,

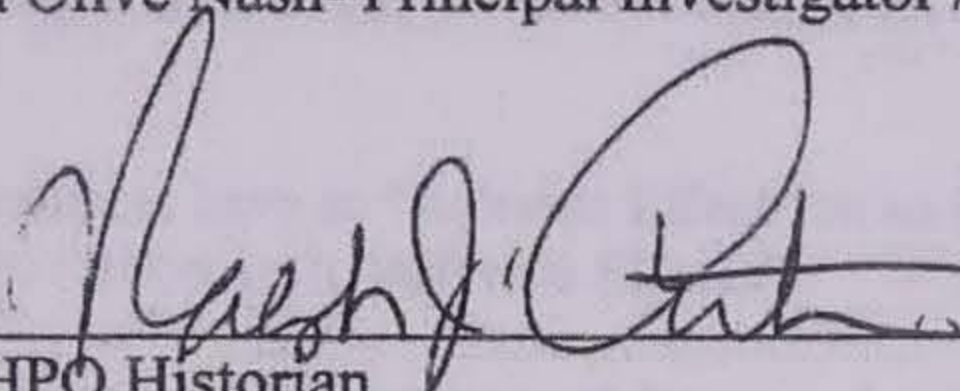


Matt Donovan  
Office of Location and Environment  
[Matt.Donovan@dot.state.ia.us](mailto:Matt.Donovan@dot.state.ia.us)

MJFD  
Enclosure

cc: Kris Riesenbergs- Location and Environment  
Richard Kautz- District 6 Engineer  
Jan Olive Nash- Principal Investigator / Tallgrass Historians L.C.

Concur



SHPO Historian

Date

2/9/03

Comments:



A Division of the Iowa Department of Cultural Affairs

Your request for comment by the State Historic Preservation Officer has been received.

Date Received: 06/09/2003 End of 30 Day Period: 07/09/2003

Agency: FHWA SHPO R&C #: 010331126

NHS-20-9[121]-19-31 - PIN 90-31050-1 - PIN 90-31050-1 - THLC - US 20 CAPACITY IMPROVEMENT STUDY PEOSTA DEVON DRIVE - ARCHITECTURAL & HISTORICAL SURVEY

In accord with federal regulations, our office will respond **ONLY** when:

- The SHPO has received incomplete information or inadequate documentation under 36CFR800.11(a), (d), and (e) **OR**
- The SHPO objects to your definition of the Area Potential Effect (APE) for the undertaking **OR**
- The SHPO objects to your finding of whether a property is or is not eligible for listing on the National Register of Historic Places **OR**

The SHPO objects to your finding of the project's effect on an historic property **OR**

- The project is proposed to have a "No Adverse Effect," with or without conditions, and where the SHPO disagrees with the finding **OR**
- The project is determined to have an "Adverse Effect" on an historic property and the federal agency is consulting with SHPO on how to resolve such "Adverse Effects"

Otherwise, after 30 days from the above referenced date you should consider that your obligations to consult with the SHPO have been concluded and the State agrees with your finding.

Be advised the successful conclusion of consultation with the SHPO does not fulfill the agency's responsibility to consult with other parties who may have an interest in properties that may be affected by this project. Nor does it override the sovereign status of federally recognized American Indian Tribes in the Section 106 consultation process.

We have made these comments and recommendations according to our responsibility defined by Federal law pertaining to the Section 106 process. The responsible federal agency does not have to follow our comments and recommendations to comply with the Section 106 process. It also remains the responsible federal agency's decision on how you will proceed from this point for this project.

Should you have any questions please contact me at the number or email below, referencing the R&C number above.

Lavon Grimes  
SHPO Review & Compliance Coordinator  
(515) 281-8743  
[lavon.grimes@dca.state.ia.us](mailto:lavon.grimes@dca.state.ia.us)



# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097

515-239-1726 FAX

June 25, 2003

Ref. NHS-20-9(121)- -19-31

PIN: 90-31-020-060

Dubuque County

Primary

Ralph Christian  
Review and Compliance  
Bureau of Historic Preservation  
State Historical Society of Iowa  
600 East Locust  
Des Moines, IA 50319

R&C: 010331126

Dear Ralph:

**RE: U.S. 20 between Devon Drive in Dubuque and the City of Peosta:  
Architectural and Historical Survey- Dubuque County, Iowa- East Section**

Enclosed for your review and concurrence is the Phase I Intensive Level Historical and Architectural Survey for the above-mentioned federal funded project. This project proposes a series of road improvements along U.S. Highway 20, which includes widening a 12-mile section of U.S. 20 and improving road connections. This survey investigated the eastern one-fourth of the U.S. 20 project corridor.

This survey was conducted using an extensive archival / records search, along with site visits and property documentation. This documentation included GPS readings, sketches and black-and-white photographs.

A total of 199 properties were evaluated for this study. Of these properties, 150 were determined to be modern buildings or structures that were less than 50 years old and ineligible for the National Register. Most of these modern properties were suburban residences and highway-related commercial buildings.

Of the remaining 49 resources, which are older than 50 years, 26 properties, including two districts, were determined eligible for the National Register.

The Cherokee Drive Historic District encompasses 24 houses and represents an example of a Post-World War II development. (Properties 31-0443 through 31-04465) This district is considered eligible under Criteria A and C.

The Center Grove Methodist Cemetery District (31-04482) encompasses the Methodist Church building plus the cemetery grounds. This district, important to the 19<sup>th</sup> English ethnic community is considered eligible under Criterion A and Criterion D.

Along with the two historic districts, two additional properties were determined eligible for the National Register, a Spanish Eclectic style house at 95 Algona Street (Property 31-00799) and the Burger Saloon, located on 3338 Center Grove Drive. (Property 31-04584)

The Spanish Eclectic style house is considered an excellent example of its construction type and is considered eligible under Criterion C.

The Burger Saloon represents an I-house important to the history of Center Grove. This property is eligible under Criterion A.

Once design plans have been finalized, a separate determination of effect, if any, will forward to your office for review and concurrence.

If you concur with the findings of this historical / architectural survey, please sign the concurrence line below, add your comments and return this letter. If you have any questions, please feel free to contact me.

Sincerely,

MJFD  
Enclosure

Matt Donovan  
Office of Location and Environment  
[Matt.Donovan@dot.state.ia.us](mailto:Matt.Donovan@dot.state.ia.us)

cc: Kris Riesenbergs- Location and Environment  
Richard Kautz- District 6 Engineer  
Jan Olive Nash- Principal Investigator / Tallgrass Historians L.C.

Concur \_\_\_\_\_ Date \_\_\_\_\_  
SHPO Historian

Comments:



Iowa Department of Transportation  
TRIBAL NOTIFICATION

Date July 21, 2003  
IADOT project # NHS-20-9(121)--19-31  
Location Dubuque County, Iowa  
Description U.S. 20 - Devon Drive to the City of Peosta  
Widening - 12 mile section / Road improvements

IA DOT contact Math Donovan  
Phone # 515-239-1097  
E-mail math.donovan@dot.state.ia.us

Type of Project (see map)

- VERY SMALL - Disturb less than 12 inch depth (plow zone)
- SMALL - Grading on existing road, shouldering, ditching, etc.
- SMALL - Bridge or culvert replacement
- LARGE - Improve existing road from 2-lanes to 4-lanes
- LARGE - New alignment
- OTHER

Type of Coordination/Consultation Points

- 1--Early project notification (project map and description)
  - 2--Notification of survey findings (Phase I)
  - 2a--Notification of site evaluation (Phase II)
  - 3--Consultation regarding site treatment
  - 4--Final Data Recovery Report
- Additional Phase II will be conducted.*

Type of Findings

- No American Indian sites found  
--Section 106 Consultation Process ends \*
  - No significant American Indian sites eligible for National Register listing found--Section 106 Consultation Process ends \*
  - Avoided American Indian sites eligible for National Register listing (see map and list of sites)  
--Section 106 Consultation Process may or may not end
  - Potentially significant American Indian sites found  
Phase II evaluation conducted (see map and list of sites)
  - American Indian sites eligible for National Register listing cannot be avoided (see map)
  - Burial site found
- \* in the event of a late discovery consultation will be reopened
- \_\_\_\_\_ # of non-significant prehistoric sites  
\_\_\_\_\_ # of potentially significant prehistoric sites  
\_\_\_\_\_ # of National Register eligible prehistoric sites

Affected National Register Properties

- Investigating avoidance or minimizing harm options
- Avoided
- Protected
- Data Recovery/MOA

\*\*\*\*\* Please Respond \*\*\*\*\*

Who should we contact for site/project related discussions?

Name \_\_\_\_\_ Street Address \_\_\_\_\_ City, Zip Code \_\_\_\_\_  
Phone \_\_\_\_\_ E-mail \_\_\_\_\_

Do you know of any sensitive areas within or near the project the FHWA/DOT should avoid (please describe)? \_\_\_\_\_

- Thank you for the information; however, we do not need to consult on this particular project.
- We do not have a comment at this time but request continued notification on this project.
- Please send a copy of the archaeology report.
- Thank you for the information. We are satisfied with the planned site treatment.
- We have concerns and wish to consult.
- We wish to participate in the Memorandum of Agreement for this project.

Comments \_\_\_\_\_

Name \_\_\_\_\_ Tribal Name \_\_\_\_\_ Date \_\_\_\_\_



# FARMLAND CONVERSION IMPACT RATING

<b>PART I (To be completed by Federal Agency)</b>		Date Of Land Evaluation Request 1/28/03	
Name Of Project	Capacity Improvement of U.S. 20 in Dubuque Co.	Federal Agency Involved	Federal Highway Administration
Proposed Land Use	Highway Corridor	County And State	Dubuque County, Iowa

<b>PART II (To be completed by NRCS)</b>		Date Request Received By NRCS	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply – do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Major Crop(s) corn-soybeans		Farmable Land In Govt. Jurisdiction Acres: 305140 % 77	Acres Irrigated Average Farm Size 210
Name Of Land Evaluation System Used Dubuque, Iowa	Name Of Local Site Assessment System None	Amount Of Farmland As Defined in FPPA Acres: 64885 % 18	
		Date Land Evaluation Returned By NRCS 3/11/03	

<b>PART III (To be completed by Federal Agency)</b>	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	230.0	230.0		
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	230.0	230.0	0.0	0.0

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland	53.2	49.9		
B. Total Acres Statewide And Local Important Farmland	0.0	0.0		
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.1	0.1		
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	38.8	56.2		

<b>PART V (To be completed by NRCS) Land Evaluation Criterion</b>				
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	61	58		

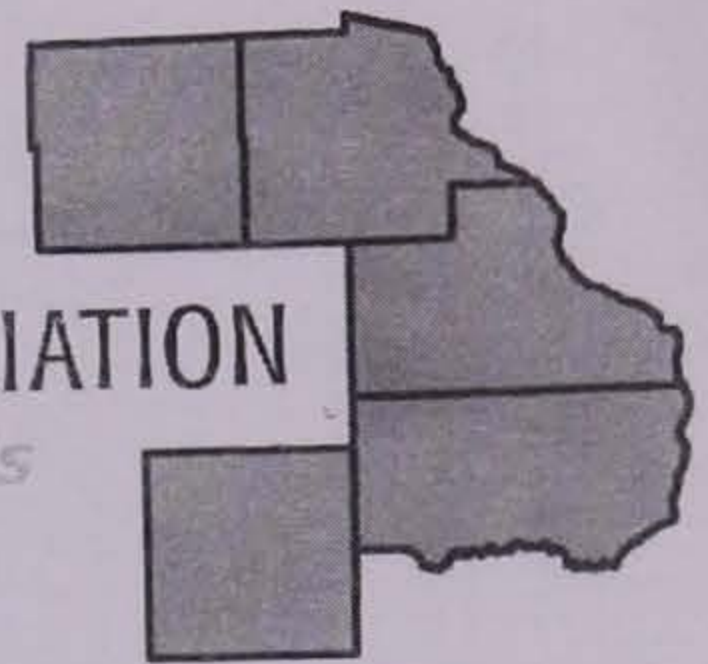
<b>PART VI (To be completed by Federal Agency)</b>				
Site Assessment Criteria (These criteria are explained in 7 CFR 658.5(b))	Maximum Points			
1. Area In Nonurban Use	15	12	12	
2. Perimeter In Nonurban Use	10	8	8	
3. Percent Of Site Being Farmed	20	17	17	
4. Protection Provided By State And Local Government	20	0	0	
5. Distance From Urban Builtup Area	0	0	0	
6. Distance To Urban Support Services	0	0	0	
7. Size Of Present Farm Unit Compared To Average	10	10	10	
8. Creation Of Nonfarmable Farmland	25	0	0	
9. Availability Of Farm Support Services	5	5	5	
10. On-Farm Investments	20	10	10	
11. Effects Of Conversion On Farm Support Services	25	0	0	
12. Compatibility With Existing Agricultural Use	10	0	0	
<b>TOTAL SITE ASSESSMENT POINTS</b>	<b>160</b>	<b>62</b>	<b>62</b>	<b>0</b>

<b>PART VII (To be completed by Federal Agency)</b>				
Relative Value Of Farmland (From Part V)	100	61	58	
Total Site Assessment (From Part VI above or a local site assessment)	160	62	62	0
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>123</b>	<b>120</b>	<b>0</b>

Site Selected: Site A	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Reason For Selection: Similar farmland impacts, while fewer forested riparian, floodplain and residential displacements exist for Site A.

EAST CENTRAL INTERGOVERNMENTAL ASSOCIATION  
*A Regional Response to Local Needs*



Suite 200  
3999 Pennsylvania Avenue  
Dubuque, IA 52002

October 7, 2003

Richard Kautz, P.E.  
District Engineer  
Iowa Department of Transportation  
District 6 Office  
430 16th Ave. S.W.  
Cedar Rapids, IA 52406-3150

RECEIVED  
OCT 10 2003  
OFFICE OF LOCATION & ENVIRONMENT

RE: Support for US Highway 20 Capacity Improvement Project

Dear Mr. Kautz:

On behalf of the Dubuque Metropolitan Area Transportation Study (DMATS) Policy and Technical Committees, we fully support the US Highway 20 Capacity Improvement Study from Dyersville, Iowa to the Northwest Arterial within the City of Dubuque.

The Dubuque area has long recognized the need for capacity improvements on the US Highway 20 corridor throughout Dubuque County to improve traveler safety and regional mobility. DMATS envisions this project to be a critical component to its long-range transportation vision whereby improved mobility will help foster further economic development and enhanced regional vitality. Moreover, the US Highway 20 Capacity Improvement study is one of the top priorities of DMATS and will be an essential asset to Dubuque's long-term transportation system.

DMATS looks forward to the continued cooperation and close coordination with the Iowa Department of Transportation on regionally significant transportation projects in the Dubuque Metropolitan Area. If we can be of any assistance to your agency, please do not hesitate to call upon us.

Sincerely,

Terry Duggan, Chair  
DMATS Policy Committee

C: DMATS Policy and Technical Committee Members

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