US 30
PROPOSED EXPANSION
BENTON COUNTY, IOWA
NHS-030-6(87)—19-06

ENVIRONMENTAL ASSESSMENT AND SECTION 4(f) *DE MINIMIS* IMPACT FINDING

Submitted Pursuant to 42 USC 4332(2)(c)

By The

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
And
IOWA DEPARTMENT OF TRANSPORTATION
OFFICE OF LOCATION AND 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 requests to fund the preferred alternative.

For the Iowa Division Administrator
Federal Highway Administration

For the Office of Location and Environment
Iowa Department of Transportation

6/11/2012
Date of Approval for Public Availability

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PREFACE

The Transportation Equity Act of the 21st Century (TEA-21) (23 CFR) mandated environmental streamlining in order to improve transportation project delivery without compromising environmental protection. In accordance with TEA-21, the environmental review process for this project has been documented as a Streamlined Environmental Assessment (EA). This document addresses only those resources or features that apply to the project. This allowed study and discussion of resources present in the study area, rather than expend effort on resources that were either not present or not impacted. Although not all resources are discussed in the EA, they were considered during the planning process and are documented in the Streamlined Resource Summary, shown in Appendix A.

The following table shows the resources considered during the environmental review for this project. The first column with a check means the resource is present in the project area. The second column with a check means the impact to the resource warrants more discussion in this document. The other listed resources have been reviewed and are included in the Streamlined Resource Summary.

Table 1: Resources Considered

SOCIOECONOMIC		NATURAL ENVIRONMENT	
☑	☑ Land Use	☑	☑ Wetlands
☐	☐ Community Cohesion	☑	☑ Surface Waters and Water Quality
☐	☐ Churches and Schools	☐	☐ Wild and Scenic Rivers
☐	☐ Environmental Justice	☑	☑ Floodplains
☑	☑ Economic	☑	☐ Wildlife and Habitat
☐	☐ Joint Development	☐	☐ Threatened and Endangered Species
☐	☐ Parklands and Recreational Areas	☑	☑ Woodlands
☐	☐ Bicycle and Pedestrian Facilities	☑	☑ Farmlands
☑	☑ Right-of-Way		
☑	☑ Relocation Potential		
☑	☑ Construction and Emergency Routes		
☑	☑ Transportation		
CULTURAL		**PHYSICAL**	
☑	☑ Historical Sites or Districts	☑	☑ Noise
☑	☑ Archaeological Sites	☑	☐ Air Quality
☑	☑ Cemeteries	☑	☐ Mobile Source Air Toxics (MSATs)
		☑	☐ Energy
		☑	☑ Contaminated and Regulated Materials Sites
		☑	☐ Visual
		☑	☑ Utilities
☑	**CONTROVERSY POTENTIAL** Several relocations would be required.		
☑	**Section 4(f): Historic Sites** Property from three historic sites could be acquired resulting in de minimis impacts.		

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DESCRIPTION OF THE PROPOSED ACTION

SECTION 1
DESCRIPTION OF THE PROPOSED ACTION

This Environmental Assessment (EA) has been prepared in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA). This EA informs the public and interested agencies of the proposed action and alternatives to the proposed action in order to gather feedback on the improvements under consideration.

1.1 Proposed Action

The Iowa Department of Transportation (Iowa DOT) in coordination with the Federal Highway Administration (FHWA) is proposing to expand U.S. Highway 30 (US 30) from a rural two-lane highway to a rural four-lane divided highway including interchanges at Iowa State Highway 21 (IA 21) and U.S. Highway 218 (US 218) in Tama and Benton counties, Iowa (the Project). Figure 1-1 shows the general location of the Project on a topographic map base. Section 4.3, Proposed Alternative, describes the proposed improvements, including the location, termini, and configuration of the Project.

1.2 Study Area

Most of the area investigated for the Project is in Benton County, and a small portion is located in Tama County. The Study Area corridor begins at the intersection with IA 21 west of the Tama/Benton County line and proceeds east approximately 14 miles to the junction of US 218. Figure 1-2 shows the Study Area on an aerial photograph base. The Study Area is irregular in shape because it includes access modifications for crossing roads as well as areas identified as potential borrow sites. The Study Area consists primarily of agricultural land. It also includes approximately 20 farmsteads, 20 rural residences, two cemeteries, five commercial businesses, and a power substation.

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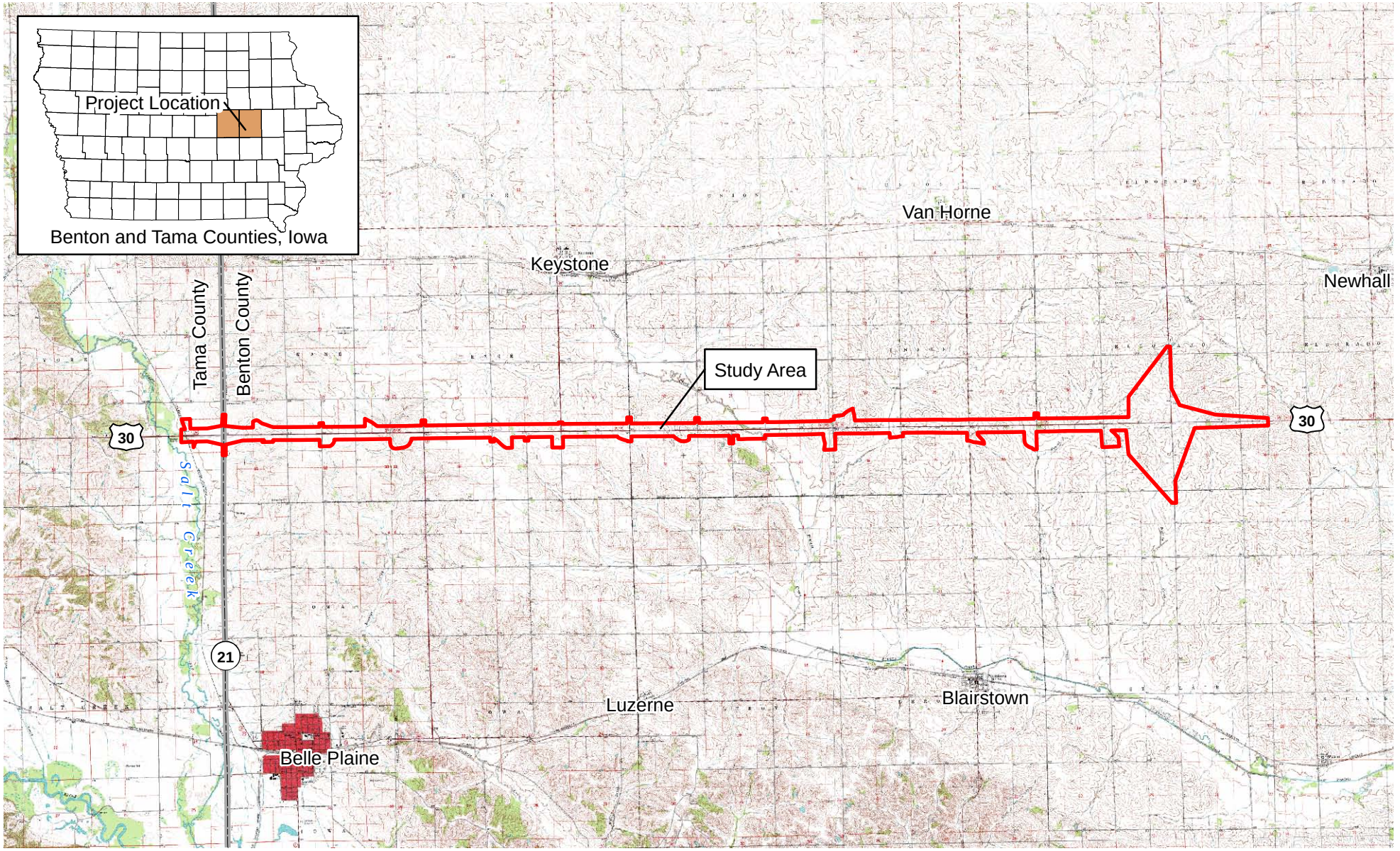

2 1 0 2
Miles
Scale

Iowa Department of Transportation

Project Location

US 30 Benton County Proposed Expansion
Benton and Tama Counties, Iowa
Environmental Assessment

DATE
March 2012

FIGURE
1-1

Western Terminus of Project

Eastern Terminus of Project

Project Location

Benton and Tama Counties, Iowa

Tama County

Benton County

72 ST

12 AVE

72 ST DR

13 AVE

14 AVE

16 AVE

V37

V42

30

73 ST

11 AVE

73 ST DR

11 AVE DR

V40

14 AVE DR

15 AVE

V44

17 AVE DR

IOWA 21

74 ST

74 ST DR

17 AVE

18 AVE

V56

21 AVE

22 AVE

218

24 AVE

25 AVE

26 AVE

19 AVE

20 AVE

V66

23 AVE

V70

17 AVE DR

73 ST DR

74 ST

3,000 1,500 0 3,000

Feet

Scale

Legend

Study Area Boundary

County Boundary

Iowa Department of Transportation

Study Area

US 30 Benton County Proposed Expansion
Benton and Tama Counties, Iowa
Environmental Assessment

DATE

March 2012

FIGURE

1-2

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SECTION 2

PROJECT HISTORY

SECTION 2
PROJECT HISTORY

This section describes the Project background and the events leading up to the proposed action. It also discusses other projects in or near the Study Area.

A Planning Study for the US 30 corridor through both Tama and Benton counties was initiated in the mid-1990s. Alternative roadway alignments were presented at a public meeting in September 1999. The proposed concept for the improvements to US 30 included upgrading the existing rural two-lane highway to a rural four-lane divided highway generally following the existing alignment. The proposal at that time was to add two new lanes along the north side of the existing roadway from the east corporate limits of Tama to just east of the Salt Creek Bridge near the Tama/Benton County line. The new lanes would then transition to the south side of the existing highway and remain there to the intersection of US 30 and US 218.

Iowa DOT determined that the original US 30 corridor, as identified in the 1990s Planning Study, would be divided and developed as two separate corridor studies. The studies were split near the Tama and Benton County line as follows:

- The west section (Tama County) starts at the new US 30 bypass alignment on the east side of Tama at M Avenue. This project, addressed in a separate EA, proceeds east to just west of the Tama/Benton County line.

- The east section (Benton County) is the subject of this EA. The Project starts at the eastern terminus of the US 30 Tama County project, just west of the Tama/Benton County line, and extends east to the west junction of US 218 to tie into the existing four-lane section of US 30.

Iowa DOT conducted a public information meeting (PIM) on April 20, 2010, prior to initiation of the NEPA process. The meeting was held to obtain input on public concerns with regard to the study and to acquire background information on potential constraints in the Study Area. A second PIM was conducted on October 6, 2010, to provide Project information to the public and to gather public feedback on the Project. A third PIM was held on June 29, 2011, to provide the opportunity for the public to review and comment on the range of alternatives for the expansion of US 30 from two lanes to four lanes, including possible interchanges at IA 21 and US 218. A fourth PIM was held on September 14, 2011, to provide an update on the development of the Project since the PIM held on June 29, 2011. The alternatives were presented to the public as well as the interchange options for both IA 21 and US 218. Access control for the Project was also presented. The meeting was held to allow opportunity for additional comment on the proposed alternatives and to provide Iowa DOT staff an opportunity to more fully explain the adjustments made since the last meeting. Section 7, Comments and Coordination, includes a summary of public and resource agency input on the study. Iowa DOT sent early coordination letters to Federal, state, and local

agencies and has used the concurrence point process to receive additional input from designated agencies (see Section 7.1, Agency and Tribal Coordination).

SECTION 3

PURPOSE AND NEED FOR ACTION

SECTION 3
PURPOSE AND NEED FOR ACTION

3.1 Purpose of the Proposed Action

The purpose of the proposed action is to upgrade and modernize US 30 from the Tama County line near its intersection with IA 21 to the current four-lane section at the west junction with US 218, while meeting Iowa DOT's current design standards for an expressway.

3.2 Need for the Proposed Action

The need for the proposed action is based on three primary factors noted below and described in detail in the following sections:

- Safety
- Capacity
- System continuity

3.2.1 Safety

Iowa DOT performed a crash analysis for the Study Area along US 30 from the Tama County line to the west junction of US 30 and US 218. Crashes were analyzed for the 5-year period of 2005 to 2009. The statewide average crash rate for a rural US highway during that period was 93 crashes per hundred million vehicle miles traveled (HMVMT). The Project was divided into four segments for crash analysis, as follows.

1. Segment 1, from IA 21 to County Road (CR) V40: 84.48 crashes/HMVMT
2. Segment 2, from CR V40 to CR V42 (15th Avenue): 53.22 crashes/HMVMT
3. Segment 3, from CR V42 to CR V66 (21st Avenue): 94.99 crashes/HMVMT
4. Segment 4, from CR V66 to US 218: 71.21 crashes/HMVMT

The crash rates for Segments 1, 2, and 4 are less than the statewide average crash rate, although Segment 1 is approaching the average rate. The crash rate for Segment 3 slightly exceeds the statewide average, with 54 crashes recorded in Segment 3 during the 5-year analysis period. Although the crash rate for Segment 4 is lower than the statewide average, 22 crashes were reported in Segment 4 during the 5-year period, with two fatalities in independent crashes. Since 2005, the intersection at US 30 and IA 21 on the west end of the project has been the site of five crashes, with zero fatalities. The intersection at US 30 and US 218 on the east end of the project has been the site of nine crashes, two of which resulted in fatalities.

The Segment 3 intersection of US 30 and 19th Avenue (CR V 56) is ranked 31st out of 200 in Iowa DOT's published "2005 – 2009 Top 200 Safety Improvement Candidate Locations (SICL)." The Segment 4 intersection of US 30 and US 218 (24th Avenue) is ranked 68th. The intersections in the SICL are ranked according to the number and severity of crashes as well as the rate at which crashes occur (Iowa DOT, June 29, 2010).

As discussed in Section 3.2.2, Capacity, the traffic volume on US30 is anticipated to increase by over 50 percent by 2037. If US 30 would remain a 2-lane highway, the accident rate (crashes per HMVMT) would likely increase with increasing traffic density (Transportation Research Board, No date).

3.2.2 Capacity

Ames and Cedar Rapids, the two major cities connected by the US 30 Expressway, have shown growth in the recent past and are expected to continue to grow. Consequently, future traffic volumes and patterns have been projected to grow as well. Traffic projections were estimated by Iowa DOT for the year 2017 (Program Year) and the year 2037 (Design Year) for the four segments identified above. The segments were analyzed using the future year traffic projections and the Highway Capacity Manual 2000 (HCM) methodology. The analysis for the entire length of the Project (14 miles) revealed a 57 percent increase in traffic from the 2017 estimated Average Daily Traffic (ADT) of 5,400 vehicles per day to the estimated 2037 ADT of 8,500 vehicles per day. The current two-lane highway and at-grade major intersections are not sufficient to meet anticipated future traffic movements and volumes. The percentage of truck traffic during this period is expected to remain the same, at 19 percent of total traffic volume. A four-lane facility would more efficiently accommodate the estimated increase in total traffic volume.

Based on projected traffic volumes, crash data, and turning movements, Study Area intersections were evaluated to determine whether changes to the intersections were warranted. This EA evaluates the intersection of US 30 with IA 21 and the junction of US 30 with US 218 as potential interchanges.

3.2.3 System Continuity

US 30 across Iowa is part of the Commercial Industrial Network (CIN)[1]. As part of the CIN, other segments of US 30 in the State of Iowa have been developed as four-lane expressways. However, between the cities of Ames and Cedar Rapids, there are a few two-lane sections that have not been upgraded to four lanes. Upgrading this section of US 30 in Benton County to a full four-lane facility, would allow traffic to flow more smoothly and would provide the efficiency and connectivity of a continuous expressway facility.

[1] Iowa DOT defines the Commercial Industrial Network as a "designated road system of primary highways that connect the State's regional growth areas and carry a significant amount of the State's commercial traffic; the CIN does not include the interstate system."

SECTION 4

ALTERNATIVES

SECTION 4
ALTERNATIVES

This section discusses the alternatives investigated to address the purpose and need for action. A range of alternatives was developed, including a range of alternatives for the interchanges at IA 21 and US 218. The No Build Alternative, the alternatives considered but dismissed, and the Proposed Alternative are discussed below.

4.1 No Build Alternative

Under the No Build Alternative, neither the proposed expansion of US 30 nor the new interchanges would be constructed. The road network would continue to be used in its existing configuration. This alternative would not improve safety, would not provide system continuity for more efficient traffic flow, and would not increase the capacity of US 30. Although it does not meet the purpose and need, the No-Build Alternative was carried forward for detailed study because it provides a baseline for comparing the potential impacts of other alternatives and consideration of a no action alternative is required by Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508).

4.2 Alternatives Considered but Dismissed

Three expansion alternatives were developed for increasing the capacity of the roadway. Additionally, options were considered for constructing interchanges at the current US 30/IA 21 and US 30/US 218 intersections. The interchange configurations evaluated are compatible with all three of the expansion alternatives; therefore, the roadway alternatives and interchange options were evaluated independently, as discussed in the following sections. The expansion alternative and interchange options carried forward in this EA are discussed in Section 4.3, Proposed Alternative.

4.2.1 Roadway

The three potential roadway alternatives considered would expand US 30 from two lanes to four lanes. The expanded US 30 would consist of two 26-foot-wide sections of pavement that accommodate 12-foot-wide driving lanes. The outside lane in each direction would have an additional width of 2 feet beyond the driving lane. Outside shoulders would be 8 feet wide with 4 feet of paved surface and 4 feet of granular surface. Inside shoulders would be 6 feet wide with 4 feet of paved surface and 2 feet of granular surface. The proposed median width, inside edge of pavement to inside edge of pavement, would be 82 feet wide. Access

control for the four-lane highway would be Priority III[1], at a minimum, with access allowed at interchanges and right-in/right-out access approximately every 1,000 feet. Intersections with higher traffic volumes will be studied in the future to determine if the median should be widened further at those locations to accommodate turning traffic. All three expansion alternatives would utilize the existing Salt Creek bridge (located just outside the western terminus of the Project) for the eastbound lanes. The following two roadway expansion alternatives were considered but dismissed from further evaluation.

Alternative 1

Alternative 1 would provide for the construction of two additional lanes and two reconstructed lanes to the south of the existing roadway, starting just east of the IA 21 intersection. The new lanes would proceed east and would tie into the existing four-lane roadway section at US 218. This alternative would generally maintain the right-of-way (ROW) line on the north side of the existing highway.

Alternative 1 would use the existing roadway alignment for the roadway ditch of the westbound lanes of travel. The majority of the acquisition of ROW would be on the south side of the existing roadway. This alternative would impact about the same amount of farmland as the other alternatives. This alternative was dismissed based on public input regarding the use of the existing roadbed; under Alternative 1, there would be minimal reuse of the existing roadbed compared to Alternatives 2 and 3. In addition, property owners of farmland adjacent to the Alternative 1 alignment did not prefer this alternative because the amount of farmland to be acquired south of the existing alignment would be substantially greater than the farmland to be acquired north of the existing alignment, making the impacts disproportionate on several property owners.

Alternative 2

Alternative 2 would provide for the construction of two additional lanes and two reconstructed lanes to the north of the existing roadway from just west of the IA 21/US 30 intersection to just west of the 19th Avenue/US 30 intersection. At this point, the alignment would shift to the south of the existing roadway to avoid impacting Calvary Catholic Cemetery and would continue on the south side to tie into the existing four-lane roadway at US 218.

Alternative 2 would use some of the existing roadway alignment for the eastbound lanes of travel but would require the acquisition of ROW on both the north and south sides of the existing roadway. This alternative would likely adversely impact a property recommended as eligible for listing on the National Register of Historic Places (NRHP). It would also impact more streams and more floodplain, farmland, and woodland area than either of the other alternatives evaluated. Alternative 2 would impact more homes and businesses than

[1] Iowa DOT defines Priority III access as four-lane rural highways with access at interchanges and selected at-grade locations. Access spacing has a 1,000-foot minimum requirement but a preferred distance of 0.25 mile (Iowa DOT, n.d.).

Alternative 1. This alternative was dismissed primarily due to its impact on the NRHP-eligible property and also because of the higher impacts to natural resources compared to the other two alternatives. It was also dismissed because it would be difficult to maintain traffic during construction.

4.2.2 Interchanges

Two interchange configurations were considered for the US 30/IA 21 interchange, and five configurations were considered for the US 30/US 218 interchange.

US 30/IA 21 Interchange

Two diamond interchange options were considered for the proposed US 30/IA 21 interchange. Under Option 1, the mainline (US 30) would be constructed over IA 21 (side road). Under Option 2, IA 21 would be constructed over the mainline (US 30). Although the impacts between Option 1 and Option 2 would be similar, Option 1 was eliminated from further consideration because of its need to build up US 30 in order to go over IA 21. Option 1 would result in a slightly increased cost compared to Option 2, and would have constructability issues to raise the elevation of US 30 and still maintain traffic. Option 2 is included in the Proposed Alternative, discussed in Section 4.3.

US 30/US 218 Interchange

Five interchange options were considered for the proposed US 30/US 218 interchange: three options involving relocation of US 218 to the west, and two on-alignment options. One of the on-alignment interchange options and all of the relocation interchange options were dismissed from further evaluation, as discussed below. The remaining on-alignment option was included in the Proposed Alternative, discussed in Section 4.3.

Option 1 would relocate US 218 approximately 450 feet to the west. The interchange would be a folded diamond interchange, with US 218 constructed over US 30. This option was eliminated from further consideration because of the additional farm ground impacts caused from shifting US 218 to the west of the existing roadway.

Option 2 would relocate US 218 approximately 3,000 feet to the west to avoid impacts on Prairie Lutheran Cemetery and the Youngville Café. The interchange proposed for this option is a diamond interchange, with US 218 constructed over US 30. This option was eliminated from further consideration because of the additional length of roadway reconstructed and the additional farm ground impacts caused from shifting US 218 to the west of the existing roadway.

Option 3 would relocate US 218 approximately 2,000 feet to the west. The interchange would be a three-quadrant interchange with US 218 constructed over US 30. As with Options 1 and 2, this option was eliminated from further consideration because of the additional length of roadway reconstructed and the additional farm ground impacts caused from shifting US 218 to the west of the existing roadway.

One of the on-alignment options would include a two-quadrant interchange on the existing US 218 alignment, with the mainline (US 30) over the side road (US 218). An interchange at the existing intersection of US 30 and US 218, with US 30 over US 218, is not feasible because of the location of Prairie Lutheran Cemetery and the Youngville Café (which is listed in the NRHP). Considering the impacts on the cemetery and the café, this on-alignment option of US 30 over US 218 would have constructability issues; therefore, this option was dismissed early in the alternative identification process and was not assigned an option number. Option 4 is for an on-alignment option with US 218 over US 30 and is included in the Proposed Alternative, discussed in Section 4.3.

4.3 Proposed Alternative

Iowa DOT has identified a combination alternative of Roadway Alternative 3, US 30/IA 21 Interchange Option 2, and US 30/US 218 Interchange Option 4 as the Proposed Alternative.

Roadway Alternative 3 provides for the construction of two additional lanes and two reconstructed lanes, with the westbound lanes generally on the alignment of the existing roadway. Eastbound lanes would be constructed to the south of the existing roadway. The new roadway would tie into the existing four-lane section at US 218. This alternative would require the acquisition of ROW on both the north and south sides of the existing roadway.

US 30/IA 21 interchange Option 2 would allow IA 21 (side road) to be constructed over the mainline (US 30). This option is less costly and easier to construct than Option 1 for this interchange.

US 30/US 218 interchange Option 4 would include an interchange on the existing US 218 alignment, with the side road (US 218) over the mainline (US 30). The interchange proposed for this option is a two quadrant cloverleaf, which includes ramps in the northwest and southeast quadrants of the existing intersection. A retaining wall would be constructed along the east edge of the Prairie Lutheran Cemetery in order to avoid impacts on the cemetery. This interchange option requires less land than other options.

The Proposed Alternative would impact slightly more wetlands than Alternatives 1 and 2 but would avoid adverse effects on property recommended as eligible for listing on the NRHP that would occur under Alternative 2. The Proposed Alternative would impact less farmland than Alternative 2, and an amount similar to Alternative 1. However, based on public input through several public meetings (see Section 7 for a summary of the public meetings), the public preferred Alternative 3 because the alternative maximized use of the existing roadbed. In addition, although the ROW and farmland impacts would be experienced by more landowners, the impacts on each landowner would be smaller under Alternative than under the other alternatives considered.

Iowa DOT has identified the Proposed Alternative as the preferred alternative. This alternative is preferred because it meets the purpose of and need for the proposed action while minimizing overall impacts; it will undergo additional design and be carried through the EA as the Proposed Alternative.

The public and the resource agencies will have the opportunity to comment on the Proposed Alternative during the NEPA process. Final selection of an alternative would not occur until Iowa DOT and FHWA evaluate all comments received as a result of the public hearing on the US 30 Benton County Proposed Expansion EA. Following public and agency review of this EA, FHWA and Iowa DOT would determine if an environmental impact statement (EIS) is required. If one is not required, the selected alternative would be identified in a Finding of No Significant Impact (FONSI) document. If an EIS is required, then a preferred alternative would be selected through that process.

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SECTION 5

ENVIRONMENTAL ANALYSIS

SECTION 5
ENVIRONMENTAL ANALYSIS

This section describes the existing socioeconomic, natural, and physical environments in the Project corridor that would be affected by the Proposed Alternative. The resources with a check in the second column in Table 1, located at the beginning of this document, are discussed below.

Each resource section addressed below includes an analysis of the impacts of the two alternatives carried forward for detailed study: the No Build Alternative and Proposed Alternative. In addition, when warranted, each resource is evaluated for measures to avoid, minimize, or mitigate adverse impacts. The Study Area includes the preliminary impact area used for determining impacts on the evaluated environmental resources. Figures 5-1 through 5-12 (arranged in order from the Project's western terminus to its eastern terminus) show the preliminary impact area and the location of evaluated resources. The preliminary impact area includes roadway right–of-way needs and the area where construction could occur. Because it is early in the design process, the area potentially affected by the Project would likely be less than what is portrayed within the preliminary impact area. Some of the potentially impacted resources would be avoided as the Project design is refined. For example, as the roadway design is refined, some of the potential impacts to residences and businesses would likely be minimized or avoided. It is likely that some of the potential borrow areas would not be used, and that the boundary of some of the potential borrow areas would be refined to avoid wetlands and other resources. Consequently, the preliminary impact line and potential impacts discussed in this section of the EA are conservative, because the actual impact area may be refined and reduced in size resulting in fewer impacts.

Section 5.5, Cumulative Impacts, addresses reasonably foreseeable projects and their potential for impacting the same resources as those the Proposed Alternative is expected to impact.

5.1 Socioeconomic Impacts

Evaluating the direct and indirect impacts that a transportation project has on socioeconomic resources requires consideration of impacts on land use (see Section 5.1.1) as well as the project's consistency with development and planning by a city or other public entity.

5.1.1 Land Use

Evaluation of land use as it relates to transportation projects refers to the determination of direct and indirect effects on existing land uses, such as agricultural, residential, and commercial/industrial, as well as consistency with regional development and land use planning. Direct effects on existing and future land uses were determined by comparing the preliminary impact area to the existing land uses. Indirect effects were determined by evaluating potential access restrictions, out-of-distance travel, and induced development.

The Study Area is predominately agricultural. Benton County enacted an agricultural land preservation ordinance in 1986 (revised in November 1994) that restricts new non-agricultural land uses within the County. The ordinance applies to all land within Benton County, Iowa, that is located outside of the corporate limits of any city. The entire County, with the exception of existing non-agricultural land uses, is zoned agricultural. The ordinance and the Land Preservation and Use Plan for Benton County give the highest degree of protection to high-quality farmland (defined as having a corn suitability rating [CSR] of 70 and above) (Benton County Board of Supervisors, November 30, 1994; Benton County Board of Supervisors, November 1994). The CSR for most of the agricultural land in Benton County is 70 or above (Benton County Planning and Zoning, June 7, 2011). The acquisition of ROW for highway improvements is exempt from the ordinance and the Land Preservation and Use Plan (Benton County Planning and Zoning, June 7, 2011).

Land in Tama County is divided into zoning districts: agricultural, residential, commercial, industrial (light and heavy), and flood hazard (Tama County Board of Supervisors, July 7, 1998).

The Study Area includes approximately 2,961 acres of the following land uses: 2,520 acres agricultural, 5 acres commercial, 2 acres exempt (cemeteries, utilities, and non-profit organizations), 61 acres residential, and 372 acres of existing ROW. Most of the agricultural parcels in and near the Study Area include residences. There are approximately 40 residences in and near the Study Area, including approximately 20 farmsteads (agricultural dwellings, barns, and related outbuildings located on agricultural land) and 20 rural residences (non-agricultural residences outside of incorporated towns) on small acreages (ranging from 1 to 10 acres of land). Five businesses are located within the Study Area: Prairie View Hog Farm, located at the southwest corner of 13th Avenue and US 30; an unnamed business located on the northeast corner of 21st Avenue and US 30; 2 Jo's Farms, located on the north side of US 30 between 22nd and 23rd Avenue; the Youngville Café, located on the north side of US 30, east of US 218 (24th Avenue) (discussed below in Section 5.1.2); and Donald Wheeler Feed Pigs, located on the north side of US 30, approximately 0.4 mile east of US 218. In addition to the five businesses in the Study Area, Kaye's Hair Cottage, a beauty salon, is located at 7242 23rd Avenue (approximately 0.5 mile north of the Study Area and approximately 0.6 mile north of US 30). Two cemeteries are located within the Study Area: Calvary Catholic Cemetery on the north side of US 30 east of 19th Avenue and Prairie Lutheran Cemetery southwest of 24th Avenue and US 30. Each of these cemeteries occupies 1 acre of land.

No Build Alternative

The No Build Alternative would result in continued use of US 30, IA 21, and US 218. This continued use would not affect the overall land use. The land use characterized predominately by agricultural with scattered rural residences would remain essentially unchanged.

Proposed Alternative

The Proposed Alternative would be constructed in an area that is predominately agricultural, with little or no potential for non-agricultural development. As described in detail in

Section 4.3, the Proposed Alternative would expand the existing two-lane highway to a four-lane highway and would require the construction of new interchanges with IA 21 and US 218 (Figures 5-1 and 5-12, respectively). The preliminary impact area includes 1,500 acres of land; of this total, approximately 348 acres are within existing ROW and 1,152 acres are outside of existing ROW. Construction of the Proposed Alternative would result in the direct conversion to transportation use, approximately 1,117 acres of agricultural land, 31 acres of residential land, 3 acres of commercial land, and less than 1 acre of exempt land (land used for utilities that is exempt from property tax). These acreages are based on the property classification by the Benton and Tama County assessors (the amount of land required for highway ROW could change during final design). The amount of land converted is less than 0.003 percent of the total land in Benton County, the location of the majority of the Project. The Proposed Alternative is consistent with existing land use plans; future land use is not projected to change. Induced development is not expected to occur because there is no demand for non-agricultural development in the US 30 corridor and because the agricultural land preservation ordinance discourages non-agricultural land uses in the US 30 corridor (Benton County Planning and Zoning, March 15, 2012).

5.1.2 Economic

This section addresses the economic character of the Study Area. The sources of information are a site visit and the Benton and Tama County assessors' databases (Benton County Courthouse, February 2012; Tama County Assessor, February 2012).

Five businesses operate in the Study Area, and an additional business is located approximately 0.5 mile north of the Study Area. Prairie View Hog Farm operates a hog confinement facility near the corner of 13th Avenue and US 30. This business is not a retail outlet; hogs are sold off site to food production businesses. An unnamed business located on the northeast corner of 21st Avenue and US 30 occasionally sells cars that are restored at this site. 2 Jo's Farms, located on the north side of US 30 between 22nd and 23rd Avenue, hosts horseback riding and a petting zoo, and is a holiday event site that includes a pumpkin patch. 2 Jo's Farms is a destination business. The Youngville Café is a restored historic site that serves as a museum as well as a part-time restaurant and farmer's market. Donald Wheeler Feed Pigs, located on the north side of US 30, approximately 0.4 mile east of US 218, sells feeder pigs. Kaye's Hair Cottage, located at 7242 23rd Avenue, approximately 0.6 mile north of US 30, is a beauty salon. A variety of home- and rural-based businesses are located near the Study Area. Most of these businesses are not dependent on direct access.

Taxable valuations for fiscal years 2012 and 2013 in Benton County are approximately $1.17 billion (Iowa Department of Management, not dated). Other tax-levying entities in the Study Area (with tax base in parentheses) include the Benton County Agricultural Extension ($1.17 billion), Kirkwood Community College ($1.08 billion), Belle Plaine Community School District ($92.4 million in Benton County), Benton Community School District ($453.8 million); Eldorado township ($34.5 million), Kane township ($34.1 million), and Union township ($34.9 million); and four fire protection districts: Van Horne Benefitted#1 ($47.2 million), Keystone-Benefitted#2 ($65.9 million), Newhall Benefitted#4 ($45.8 million), and Elberon Benefitted ($3.4 million).

No Build Alternative

The No Build Alternative would result in continued use of US 30, IA 21, and US 218. No new commercial facilities are expected to develop within or near the US 30 corridor.

Proposed Alternative

Businesses in the vicinity of a road project would be affected by restrictions in access to roads affected by closures during construction as well as the long-term access route modifications from the Proposed Alternative. As noted above, Prairie View Hog Farm sells hogs to other agricultural businesses in the area; the hog farm is not dependent on highway traffic for sales, but its ability to receive hogs for production and to sell finished hogs would be affected by restricted access to the highway and 13th Avenue. The hog farm would potentially need to be relocated to construct the expanded highway (see Section 5.1.4, Relocation Potential). The impact of roadway construction on the unnamed garage, 2 Jo's Farms, Kaye's Hair Cottage, and the Youngville Café depends on individual customers' decisions to shop at businesses near construction sites. These decisions are based on the availability of substitute products and locations; the convenience of access during construction; the duration of the Project; environmental factors such as visibility, dust, and noise; and a range of other factors that can vary by customer. Part of the unnamed garage business may need to be displaced to another area of the existing parcel of property. 2 Jo's Farms, Kaye's Hair Cottage, and Youngville Café would be affected by restricted access during construction. The impact of restricted access on businesses in the Study Area during construction would be temporary and limited to the period of construction in the area of each business. Completion of construction would have a beneficial impact on access to businesses in and near the Study Area because of improved and safer access. No adverse effects on business income are projected to occur. The unnamed garage occasionally offers cars for sale along the highway; temporary restrictions on access are not expected to adversely affect sales. 2 Jo's Farms, Kaye's Hair Cottage, Donald Wheeler Feed Pigs, and Youngville Café are destination businesses, and the impact on income is anticipated to be minor. Access to other home- and rural-based businesses would be maintained throughout construction, and any impacts on these businesses would also be minor.

As noted in Sections 5.1.3, Right-of-Way, and 5.1.4, Relocation Potential, ROW for the Project would need to be acquired from agricultural, commercial, and residential landowners. Consequently, the amount of tax revenue from the affected properties would decrease. Given the Tama and Benton counties' tax base, the decrease in revenue for Benton County, Benton County Agricultural Extension, and Kirkwood Community College would be approximately 0.3 percent. School districts with land within the preliminary impact area (Belle Plaine and Benton Community Schools) would also experience a decrease in the taxable valuation of 0.7 percent or less. The Eldorado, Kane, and Union townships would experience an approximate 2.1, 3.6, and 4.5 percent decrease in their tax base, respectively. The tax base of the Van Horne Benefitted#1, Keystone-Benefitted#2, Newhall Benefitted#4, and Benton#3-Linn#5 Fire Districts would decrease by 2.6, 2.0, 0.2, and 1.6 percent, respectively (Iowa Department of Management, n.d.; Benton County Courthouse, February 2012).

5.1.3 Right-of-Way

To assess the potential impacts associated with the alternatives, ROW acquisition and property relocations were evaluated based on existing ROW, private and public property boundaries, and future ROW needs.

The existing US 30 ROW in the Study Area is generally 120 feet wide but widens to approximately 270 feet wide near US 218. ROW is somewhat narrower (approximately 90 feet) and somewhat wider (180 feet) in some areas between IA 21 and US 218. County roads generally have from 60 to 75 feet of ROW. ROW areas are larger near the intersections with IA 21 and US 218 (Benton County Courthouse, February 2011). The total land area of existing ROW within the preliminary impact area is approximately 348 acres (Benton County GIS, March 23, 2011). Multiple property owners, including private individuals and corporations, exist in the Study Area. As described in Section 5.1.1, Land Use, the Study Area is primarily an agriculture area, with residential properties located along US 30 and along County roads.

No Build Alternative

The No Build Alternative would not require acquisition of any ROW along US 30, IA 21, or US 218.

Proposed Alternative

The Proposed Alternative includes, within the preliminary impact area, a total of 121 parcels (109 in Benton County and 12 in Tama County). The preliminary impact area (outside of existing ROW) includes approximately 1,117 acres of agricultural land, 31 acres of residential land, 3 acres of commercial land, and less than 1 acre of exempt land. The amount of ROW acquisition has not yet been determined. During final design, an effort would be made to minimize ROW acquisition and relocations to the extent practicable. ROW acquisition and relocations would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (42 U.S. Code (USC) 4601 et seq.).

5.1.4 Relocation Potential

To assess the potential impacts associated with the Proposed Alternative, ROW acquisition and property relocations were evaluated based on the conceptual design for the proposed expansion of US 30 in Tama and Benton counties. The affected area for this analysis is the preliminary impact area.

Existing properties potentially affected by the proposed US 30 expansion include 12 rural residential properties (11 in Benton County and one in Tama County) and seven farmsteads (all in Benton County). The rural residential properties range in size from 1.0 to 10.7 acres and have assessed values ranging from approximately $61,700 to $226,300. The farmsteads are located on properties ranging in size from 3.5 to 308 acres and are assessed at values ranging from $143,000 to $619,000 (Benton County Courthouse, February 2012; Tama County Assessor, February 2012). These existing rural residences were either built prior to the enacting of the Benton County Agricultural Preservation Ordnance or were old farmstead

residences that were rebuilt or remodeled. Most of the potentially affected residences were built prior to 1960s; the latest was built in 1996. Fifteen of the affected residences are owner-occupied; four are rental units (Benton County Courthouse, February 2012; Tama County Assessor, February 2012).

An existing farmstead may relocate on the same parcel as long as there are 21 or more acres left in crop production on that parcel (the size of a farm is 21 acres or more, as defined by the Benton County Agricultural Preservation Ordnance). In accordance with the Agricultural Preservation Ordnance, rural residences can be constructed only on land that has a CSR of less than 70; most of the land within the Study Area has a CSR above 70. Within the Study Area, the only areas with CSR scores below 70 are moderately to highly sloping, very scattered areas of poorer soils, or drainage ways. Residences cannot be constructed in drainageways. A rural residence could be constructed at an old farmstead if an old house remains on the site, but most abandoned farmsteads have been demolished, and the land has been cultivated for crops. A rural residence could also be constructed at the site of an old farmstead where a house has been abandoned for less than 3 years if the land has not been converted to cropland (Benton County Planning and Zoning, February 14, 2011; Benton County Planning and Zoning, April 7, 2011).

In Tama County, rural residences can be established or relocated in Agricultural Districts if they meet the requirements for a provisional use. There are three options for a provisional use: if the lot size is 40 acres or more; if the lot size is at least 1 acre and the CSR of the property is less than 70 or there is an adjacent rural residence; or by approval of the County Board of Supervisors in accordance with the terms specified in the zoning ordinance (Tama County Planning and Zoning, June 21, 2011; Tama County Board of Supervisors, July 7, 1998).

No Build Alternative

The No Build Alternative would not require relocation or acquisition of any property.

Proposed Alternative

The Proposed Alternative would potentially require 19 relocations (12 rural residences and seven dwellings on farmsteads). All of these residences are within the preliminary impact area. One of the rural residences that may be required to be relocated is located in Tama County at 3310 IA 21 (west of IA 21 and south of US 30). The other eleven rural residential properties that would potentially be affected are located in Benton County along US 30 (also locally known in Benton County as 73rd Street); these rural residences are located at 1485 73rd Street, 1542 73rd Street, 1568 73rd Street, 1569 73rd Street, 7309 17th Avenue Drive, 7310 20th Avenue, 2068 73rd Street, 7303 21st Avenue, 2164 73rd Street, 2212 73rd Street, and 2365 73rd Street. Some of the rural residences potentially requiring relocation may be able to relocate on the same parcel, if sufficient land remains and if access to US 30 or an existing side road is available.

The affected residence in Tama County could be relocated in Tama County by meeting the aforementioned conditions for provisional use. The Tama County Zoning Commissioner did

not foresee any difficulty in meeting these requirements in the vicinity of the affected residence (Tama County Planning and Zoning, June 21, 2011).

The rural residences requiring relocation in Benton County would not likely be able to relocate in their same general area due to the aforementioned land use restrictions. Some of these rural residences could potentially be relocated to areas south of 77th Street (approximately 4 miles south of US 30) – near Belle Plaine, between Blairstown and Luzerne, and areas east of US 218 where CSR values are below 70 (Benton County Planning and Zoning, June 7, 2011). Some of the rural residences could potentially be relocated within towns in the central Benton County area. A property search conducted on February 17, 2011, identified 104 properties (single-family homes and open parcels) for sale within central and western Benton County, mostly in and near existing towns (Belle Plaine, Keystone, Luzerne, Blairstown, and Van Horne) (National Association of Realtors, February 17, 2011).All seven farmsteads potentially requiring relocation are located in Benton County at 1430 73rd Street, 1625 73rd Street, 7310 17th Avenue Drive, 1733 73rd Street, 1826 73rd Street, 1938 73rd Street, and 2132 73rd Street. Six of the farmsteads could be relocated on their current property. More than half of the farmstead property located at 2132 73rd Street could be impacted for ROW, and there may not be sufficient room to relocate the existing farmstead on the current property.

One business could potentially be relocated: Prairie View Hog Farm Incorporated, located at the southwest corner of 13th Avenue and US 30. The hog farm is headquartered in Belle Plaine, Iowa and operates at several locations in Benton County. If acquisition is determined to be required, the entire parcel on which the hog confinement facility near 13th Avenue and US 30 is located would be acquired for ROW. This parcel was originally acquired from the adjacent farm, and it may be able to be relocated in the nearby area. Iowa DOT is working towards avoiding impacts to this property.

An unnamed garage on commercial property located at the northeast corner of 21st Avenue and US 30 could require partial relocation. The extent of property acquisition for 21st Avenue has not yet been determined. Expansion of US 30 and reconstruction of the intersection with 21st Avenue could require the acquisition of one of two commercial buildings at 21st Avenue and US 30. Given the size of the property occupied by these two buildings (3.4 acres) and the potential size of the acquisition (2.2 acres), one or both of the commercial buildings may be able to be relocated on the same property.

Relocations would be conducted in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Iowa Code 316, the Relocation Assistance Law; these establish a uniform policy for the fair and equitable treatment of displaced persons. The policy serves to minimize the hardships of relocation.

5.1.5 Construction and Emergency Routes

This section addresses potential impacts from construction routes and impacts on emergency routes. Emergency vehicles (ambulances, fire trucks, and police cruisers) respond to events using routes that are designated to reduce response times and account for access limitations.

No construction is currently ongoing within the Study Area. In the future, construction of roadway improvements, in addition to the Project, could occur in or near the Study Area. Cumulative impacts of reasonably foreseeable projects in conjunction with the Proposed Alternative are addressed in Section 5.5, Cumulative Impacts.

Transportation projects have the potential for impacting emergency routes both during and after construction. To determine the emergency routes, the locations of public service providers (hospitals, fire departments, and police stations) within or near the Study Area were reviewed using public databases.

The Study Area includes no hospitals or emergency service facilities, but emergency response service routes extend through the Study Area. Marengo Memorial Hospital in Marengo, Iowa is approximately 6 miles south of the Study Area. Four fire departments are located approximately 3 miles north or south of Study Area: Blairstown Fire Station, Keystone Fire Department, Luzerne Fire Department, and Van Horne Fire Department. The closest police station is located in the City of Belle Plaine, approximately 5 miles south of the Study Area.

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. There would be continued use of the two-lane US 30 that experiences frequent crashes and does not meet the anticipated future traffic demands. The increased risk of crashes could require occasional detours off US 30 during emergency situations. Access to and from emergency service providers would continue along the same routes as currently used.

Proposed Alternative

Construction of the Proposed Alternative would not require a detour route for vehicles traveling along US 30. Access to affected properties would be maintained in some way throughout construction. Alternate side roads may be closed but property owners would have access of some sort to their property as worked out between the field staff, the contractor and the property owner. 72nd Street and 74th Street parallel US 30 and are 1 mile to the north and south, respectively; these streets could be used as an alternative to US 30 during construction.

Construction equipment would add slightly to the level of traffic within the Study Area. Movement of the equipment would occur throughout the period of construction but is not expected to adversely affect traffic operations.

When construction is complete, the expanded US 30 and two new interchanges with US 218 and IA 21 would provide a direct and safe route for emergency vehicles to travel on and cross US 30. In the long term, access for emergency vehicles would improve because the expanded US 30 would have sufficient capacity for anticipated traffic volumes and safety would be improved, particularly in the locations of the two interchanges.

5.1.6 Transportation

Transportation resources in the Study Area include US 30 and the surrounding network of roadways, railroads, airports, and waterways as well as the equipment used (such as public

transit buses) for the movement of people and materials. Benton County Transportation is a demand-response public transit provider operating on behalf of East Central Iowa Transit. Benton County Transportation operates in Benton County and surrounding communities and is open to the public. Rail and water transportation are not present in the Study Area and are not discussed in this EA.

The Belle Plaine Municipal Airport (TZT) has two 4,000-foot runways and is located 5.2 miles south southeast of IA 21 and US 30. The airport is owned by the City of Belle Plaine and is open to the public (Federal Aviation Administration (FAA), January 13, 2011).

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area, and US 30 would remain a two-lane highway with at-grade intersections. Traffic flow would continue to worsen because the traffic along this route is projected to increase. Accidents would continue to occur at a rate above the statewide average for rural highways. No other reasonably foreseeable projects planned in the Study Area would address these issues. Airport operations would be unaffected.

Proposed Alternative

Construction of the Proposed Alternative would improve traffic flow and safety along US 30 through the addition of traffic lanes and the construction of interchanges at two intersections. There would be no out-of-distance travel related to through traffic on US 30. However, changes in access to the Youngville Café and Donald Wheeler Feed Pigs northeast of the new US 30/US 218 interchange would result in slightly greater travel distances to these destinations (traffic would be required to exit US 30 to US 218 and travel to a proposed access road located approximately 600 feet north of US 30). The safety improvements of the interchange and change in access offset the inconvenience of the out-of-distance travel.

Public transportation provided by Benton County Transportation would continue to operate throughout construction of US 30, using alternate routes as necessary. A slight increase in out-of-distance travel (experienced primarily by residents and visitors of destination businesses that would travel on revised access roads) would occur during and after construction, but safety improvements would offset this slight inconvenience.

As design advances, the US 30/IA 21 interchange will be further evaluated for the potential to avoid or minimize an airspace obstruction at Belle Plaine Municipal Airport and further coordination with FAA will occur.

5.2 Cultural Impacts

5.2.1 Historical Sites or Districts

A Phase I Historic Architecture Survey completed in 1994 included most of the easternmost portion of the Study Area, east of US 218. The survey did not identify any historic structures as potentially eligible for listing on the NRHP (Davidson, 1994); however, as noted below, one property was restored and subsequently became listed on the NRHP.

A Phase I Historic Architecture Survey completed in 2000 included the entire Study Area in Tama County and most of the Study Area in Benton County (Louis Berger Group, Inc, July 2000). The survey extended from the US 30 Marshall and Tama Counties Improvements in Tama County, discussed in Section 5.5, Cumulative Impacts, eastward to the US 30/US 218 intersection. This survey identified two properties within the Study Area as potentially eligible for listing on the NRHP: the Bullock Gas Station (shown in Figure 5-4) and the Kozik Farmstead, a collection of structures that would qualify as a Historic District as well as three structures that are individually eligible for listing on the NRHP (shown in Figure 5-1). On October 17, 2002, the Iowa State Historic Preservation Office (SHPO) concurred that these two properties are eligible for listing on the NRHP (Appendix B).

The 1994 survey included the Youngville Café property (shown in Figure 5-11). At the time of the 1994 survey, this structure was in a state of disrepair and was determined to be ineligible for listing on the NRHP. However, the structure was subsequently restored and was listed on the NRHP in February 2007 (U.S. Department of the Interior, National Park Service (NPS), February 9, 2007). Iowa DOT sent a letter to the Iowa SHPO dated March 24, 2011, noting that the Kozik Farmstead and Bullock Gas Station were eligible for listing on the NRHP and that the Youngville Café was listed on the NRHP; the Iowa SHPO concurred with the determinations on March 29, 2011 (Appendix B).

A survey of the three areas in the Study Area east of US 218 that were not surveyed in 1994 identified one historic site (06-00996), a farmstead with extant barns and outbuildings but no residence. This site was recommended to be not eligible for listing on the NRHP (Wapsi Valley, April 2012). SHPO concurred that this site is not eligible on April 24, 2012 (Appendix B).

Historic sites of significance eligible for listing on the NRHP are protected under Section 4(f) of the U.S. Department of Transportation Act of 1966. The Bullock Gas Station, the Kozik Farmstead, and the Youngville Café property are considered to be Section 4(f) properties.

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. No construction activities would occur, and no new ROW would be needed. Therefore, the No Build Alternative would have no effect on historic structures or districts.

Proposed Alternative

The Proposed Alternative would result in construction in the Study Area, which includes the three previously identified historic properties: the Kozik Farmstead (and three associated structures individually eligible for listing on the NRHP), Bullock Gas Station, and Youngville Café. The Kozik Farmstead is located on the southern edge of the Study Area, a few feet outside of the preliminary impact area. Access to the Kozik property would be relocated to the east off of 11th Avenue (instead of US 30), but would enter the farmstead at the same location (see Figures 5-1 and 5-2). Structures at the Kozik Farmstead would not be affected. The Bullock property entrance would be relocated to the adjacent side road (14th Avenue) on the east side of the property (see Figure 5-4). Impacts on the Bullock Gas Station would be limited to access changes; the historic structure would not be affected.

Iowa DOT prepared an effect determination indicating no adverse effect on the Kozik Farmstead and Bullock Gas Station historic properties (Iowa DOT, June 16, 2011). Iowa SHPO concurred with the effect determination on June 21, 2011 (Appendix B). The preliminary impact area also would avoid effects on the Youngville Café; however, access to the site would be relocated. The existing access for westbound US 30 is directly off the highway, and access for eastbound US 30 is via a short access road that enters the east side of the property. The direct access from US 30 to Youngville Café would be eliminated. An access road from US 218 would be constructed; this access road would enter the east side of the Youngville Café property (see Figure 5-11). Iowa DOT prepared an effect determination indicating no adverse effect on the Youngville Café historic property (Iowa DOT, April 19, 2012). Iowa SHPO concurred with the effect determination on May 1, 2012 (Appendix B).

Given that the historic structures of the Kozik Farmstead, the Bullock Gas Station, and the Youngville Café will be avoided, and a determination of "No adverse Effect" for these historic properties, SHPO has been informed of FHWA's intent to make a de minimis impact determination for the Kozik Farmstead, Bullock Gas Station, and the Youngville Café.

5.2.2 Archaeological Sites

A Phase I Archaeological Survey completed in 1994 included most of the easternmost portion of the Study Area, east of US 218. This survey did not identify any archaeological sites as potentially eligible for listing on the NRHP (Morrow, 1994, as cited in Wapsi Valley, April 2012).

A Phase I Archaeological Study completed in 2004 included the entire Study Area in Tama County and most of the Study Area in Benton County (The Louis Berger Group, 2004). The study extended from the US 30 Marshall and Tama Counties Improvements in Tama County eastward to the US 30/US 218 intersection. A total of 18 sites were reviewed within the Study Area during the Phase I study, and only one was recommended as potentially eligible for listing on the NRHP. A Phase II Study, completed in September 2010, concluded that the archaeological site identified as potentially eligible was not eligible for listing on the NRHP. On September 23, 2010, Iowa SHPO concurred with the finding that the property was not eligible for listing on the NRHP (Appendix B).

A supplemental Phase I Intensive Archaeological Survey for Proposed U.S. Highway 218 Interchange, Three Borrow Areas, and Associated Side Road Relocations along U.S. Highway 30 in Benton County, Iowa was conducted to examine additional parcel areas not previously surveyed. The survey identified two archaeological sites near US 218 potentially eligible for listing on the NRHP. Site 13BE208, the remains of a late 19th-century farmstead that appears on an 1872 plat map, is located within the preliminary impact area. Site 13BE214, a relatively large historic scatter associated with a late 19th-century/early 20th-century historic farmstead, is located within the Study Area but outside of the preliminary impact area. Because of the potential intact archaeological deposits associated with the early settlement of Benton County, both of these sites were found potentially eligible

for listing on the NRHP under Criterion D[1] (Wapsi Valley, January 2011). On April 26, 2011, Iowa SHPO concurred with the finding that both of these sites are potentially eligible for listing on the NRHP and should be further studied or avoided (Appendix B).

An additional cultural resources investigation was completed in April 2012 for areas east of US 218 potentially affected by Option 4 for the US 30/US 218 interchange, which was the selected option as part of Alternative 3. This investigation identified one previously unidentified archaeological site, a historic scatter (13BE223); however, this site was indicated as not eligible for listing on the NRHP (Wapsi Valley, April 2012). SHPO concurred that this site is not eligible on April 24, 2012 (Appendix B).

No Build Alternative

There are two potentially NRHP-eligible sites within the Study Area; however, the No Build Alternative would have no effect on historic properties (archaeological sites) because US 30 would not be expanded under this alternative.

Proposed Alternative

Of the two NRHP-eligible sites within the Study Area, only one (13BE208) is within the preliminary impact area. Site 13BE214 is outside the preliminary impact area and would be avoided. However, Iowa DOT plans to avoid impacting site 13BE208 by minimizing the amount of land needed for reconstruction of US 218 near the proposed US 30/US 218 interchange. With the understanding that Iowa DOT plans to avoid both sites, it is anticipated that the Proposed Alternative would have a determination of No Adverse Effect. A final determination from SHPO would be made prior to preparation of the FONSI, if a FONSI is determined to be the applicable NEPA decision document.

Sites 13BE208 and 13BE214 are not considered Section 4(f) resources because they are solely eligible for the NRHP under Criterion D, and Section 4(f) protection is not afforded to these types of historic properties.

5.2.3 Cemeteries

Two cemeteries are located within the Study Area. Calvary Catholic Cemetery is located on the north side of US 30, approximately halfway between 19th Avenue and 20th Avenue (see Figure 5-8). Prairie Lutheran Cemetery is located in the southwest quadrant of the intersection of US 30 and US 218 (see Figure 5-11).

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. No construction activities would occur, and no new ROW would be needed. Therefore, the No Build Alternative would not impact either cemetery.

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[1] To be eligible for listing on the NRHP, a significant historic resource with integrity of location, design, setting, materials, workmanship, feeling, and association must meet at least one of four criteria. Criterion D resources have "yielded, or may be likely to yield, information important in history or prehistory."

Proposed Alternative

Both cemeteries, because of their locations, are subjected to traffic noise from US 30. Noise impacts are discussed in detail in Section 5.4.1. The design process accounted for avoidance of direct impacts on the cemeteries. Based on the preliminary impact area, the Proposed Alternative would not result in the acquisition of any land from the cemeteries and would not have adverse direct or indirect impacts on the cemeteries. Access to Calvary Cemetery would be modified. An access road would exit US 30 near the southwest corner of the cemetery and curve back to the southeast corner of the cemetery, adding approximately 250 feet of additional travel distance. A retaining wall would be constructed between the access road and the cemetery to avoid affecting the cemetery. The access for Prairie Lutheran Cemetery would also be modified. The entrance would be moved to the south of the existing entrance and would enter the cemetery on the south side. A retaining wall would be constructed between 24th Ave. and the cemetery to avoid affecting the cemetery.

5.3 Natural Environment Impacts

This section characterizes the natural resources in the Study Area and addresses potential impacts of the No Build Alternative and the Proposed Alternative. The resources discussed are wetlands, surface waters and water quality, floodplains, woodlands, and farmlands.

5.3.1 Wetlands

Waters of the U.S., including wetlands, waterways, lakes, natural ponds, and impoundments, are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act CWA), which requires a permit to authorize the discharge of dredged or fill material into waters of the U.S. (33 USC 1251 et seq.). Executive Order 11990, Protection of Wetlands, requires Federal agencies (including FHWA) to implement "no net loss" measures for wetlands (42 Federal Register (FR) 26951). These no net loss measures include a phased approach to wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation.

Iowa DOT conducted a desktop review to identify wetlands present in the Study Area, which includes potential borrow sites. The desktop review was verified with the completion of a field review during the week of July 14, 2010, and field reviews during the summer of 2011. The field review of non-cropped areas consisted of an identification of waters of the U.S. and wetland delineations in accordance with USACE's 1987 Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region. Additionally, because the majority of the Study Area is cropped, detailed agricultural determinations were performed in accordance with Subtitle C of the Food Security Act (FSA) of 1985 (16 USC 3801-3862) and based on FSA mapping conventions. Following this methodology, U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) color aerial photographs were used in the FSA determination to identify farmed and cultivated wetlands that are waters of the U.S.

A total of 74 wetlands, including farmed and cultivated wetlands, were identified within the Study Area. The wetlands, totaling 9.14 acres, range in size from 0.001 acre to 1.65 acres.

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. No construction activities would occur, and no new ROW would be needed. Therefore, the No Build Alternative would not impact any wetlands.

Proposed Alternative

Based on the preliminary impact area, the Proposed Alternative would impact 64 wetlands totaling 6.30 acres. Figures 5-1 through 5-12 show wetlands in relation to the preliminary impact area. The affected wetlands range in size from less than 0.1 acre to 0.99 acre. As design advances, efforts will be made to reduce the impact on wetlands; considering the nature and size of the Project, however, the impacts are expected to require an individual Section 404 Permit from USACE. The wetland impacts would be offset through the development of wetland mitigation approved by USACE and Iowa DNR.

5.3.2 Surface Waters and Water Quality

Water resources include rivers, lakes, ponds, and other surface water bodies. For the purpose of this analysis, the topic of water quality is also assumed to apply to groundwater. Important criteria in evaluating surface water and groundwater are adequate quantity and quality of these waters. Surface water features in the Study Area were determined through the use of aerial photography and topographic mapping. Twenty-five surface waters, totaling approximately 20,159 linear feet, are located in the Study Area.

Groundwater in the Study Area was evaluated through background research. Potential impacts on surface water, groundwater, and water quality (of both surface water and groundwater) were evaluated by considering the proximity of the Project to water resources and the aspects of the Project. Under Section 303(d) of the CWA (33 USC 1251 et seq.), which protects waters of the U.S., states are required to develop lists of impaired waters that do not meet water quality standards in the state. Under Section 401 of the CWA, the Iowa Department of Natural Resources (Iowa DNR) has responsibility for water quality programs and standards in Iowa.

The primary sources of hydrology within the Study Area are Prairie Creek, Weasel Creek, intermittent waterways, small agricultural drainages, roadway drainage ditches, runoff from adjacent landforms, and groundwater. Salt Creek is located near but outside the western boundary of the Study Area; however, roadside drainage from approximately 1 mile east of US 21 drains to Salt Creek. Fifteen surface waters that USACE would consider potentially jurisdictional under Section 404 of the Clean Water Act were identified in the Study Area. Water clarity in the surface waters was high, and there was little evidence of nutrient enrichment. Prairie Creek within the Study Area is impaired due to a fish kill (Iowa DNR, February 4, 2011). Prairie Creek has been designated by Iowa DNR as a Class “B” Limited Resource stream, which is a warm water stream with aquatic life. Iowa DNR has not designated any of the surface waters in the Study Area as special protected streams or as streams protected from straightening. All of the streams in the Study Area have been disturbed through straightening or placement of berms.

The Iowa Geological Survey has records of 24 wells within or adjacent to the Study Area. The drill dates of the wells range from 1942 to 2006, and the well depths range from 103 to 787 feet (Iowa DNR, Geological Survey, February 22, 2011). Static water levels (meaning the depth to standing water in the well when the well is not operating) were recorded at the time the wells were constructed and range from -1 foot to 170 feet below the ground surface (Iowa DNR, Geological Survey, February 22, 2011).

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. The No Build Alternative would have no impact on the quality of surface water or groundwater in the Study Area.

Proposed Alternative

Construction of the Proposed Alternative would impact 19 surface waters, or approximately 12,683 linear feet of waters of the U.S., including Prairie Creek, within the preliminary impact area. Figures 5-1 through 5-12 show surface waters in relation to the preliminary impact area. As design advances, efforts will be made to reduce the impact on surface waters; considering the nature and size of the Project, however, the impacts are expected to require an individual Section 404 Permit from USACE. The surface water impacts would be offset through the development of mitigation approved by USACE and Iowa DNR.

Based on the preliminary impact area and the approximate location of groundwater wells, the Proposed Alternative is likely to impact 13 groundwater wells. Figures 5-1 through 5-12 show well locations based on GIS files; actual well locations would be confirmed during a physical survey as the design process continues. Iowa DOT requires proper capping and sealing of any wells on property to be acquired. A certified well contractor would be required to cap and seal the wells. Proper capping would eliminate the potential for introducing contamination down the well and into the groundwater. To mitigate impacts on wells that supply water to properties that would not be acquired, Iowa DOT would replace the well or provide a connection to an existing waterline in the area. The Proposed Alternative is not expected to generate long-term impacts on groundwater.

Approximately 1,500 acres of land are expected to be graded for the Proposed Alternative, with approximately 116 acres of new pavement constructed for the additional two lanes and two new interchanges. Several residences and farmsteads, and a hog feeding business, if impacted, could be relocated; existing facilities impacted would be demolished (unless one or more buildings were relocated rather than demolished) and the ground would be graded in those locations. The handling of regulated materials is discussed in Section 5.4.2. The remainder of solid wastes would be properly handled and disposed of in a licensed construction and demolition waste landfill to prevent adverse impacts to surface waters. The waste pit in the hog farm, if impacted, would need to be decommissioned and the animal waste would need to be properly disposed of in accordance with Iowa Administrative Code 567 Chapter 65. Any septic systems affected by ROW acquisition and construction would need to be properly decommissioned. Waste pits would need to be pumped out by a licensed contractor. Any residences (including farmsteads) relocating would need to have a new septic

system that conforms to State standards (Benton County Planning and Zoning, April 7, 2011).

Surface water runoff would increase after construction is completed because the surface area of the new roadway and interchanges would be larger than that of the existing two-lane roadway. Pollutants from street runoff (oil, grease, salt, metals) would be dispersed differently as a result of the new roadway and interchange configurations. Because the increase in traffic volumes resulting from the improvements would be negligible, the increase in pollutants also would be negligible and would not adversely impact water quality.

The contractor would be required to implement Iowa DOT's Construction Manual to minimize temporary impacts on water quality during construction. Iowa DNR administers the Federal National Pollutant Discharge Elimination System (NPDES) program and issues general permits for stormwater discharges from construction activities. The purpose of the program is to improve water quality by reducing or eliminating contaminants in stormwater. The NPDES program requires preparation of a Stormwater Pollution Prevention Plan (SWPPP) for construction sites of more than 1 acre.

The specific sediment, erosion control, and spill prevention measures would be developed during the detailed design phase and would be included in the plans and specifications. The SWPPP would address requirements specified by Iowa DOT in its Construction Manual, which are often implemented to meet measures anticipated by Iowa DNR. Although it is not possible to speculate on specific details of the SWPPP at this stage in the design process, the SWPPP is likely to include installation of silt fences, buffer strips, or other features to be used in various combinations as well as the stipulation that drums of petroleum products be placed in secondary containment to prevent leakage onto ground surfaces. A standard construction best management practice (BMP) is revegetation and stabilization of roadside ditches to provide opportunities for the runoff from the impermeable area to infiltrate, to reduce the runoff velocities, and to minimize increases in sedimentation. Iowa DOT would require the contractor to comply with measures specified in the SWPPP.

5.3.3 Floodplains

Floodplains present in the Study Area were identified by reviewing Federal Emergency Management Agency (FEMA) flood insurance maps and U.S. Geological Survey (USGS) 7.5-minute quadrangle maps. The Study Area crosses three areas of FEMA-mapped 100-year floodplains with a total area of 158.7 acres. These floodplains are associated with Salt Creek, located outside the western edge of the Study Area; with Prairie Creek in the middle of the Study Area, between 17th Avenue and 18th Avenue; and with unnamed waterways. All of the waterways with designated FEMA floodplains are aligned essentially north/south and bisect the Study Area. There are no designated FEMA floodways in the Study Area.

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. No construction activities would occur, and no new ROW would be needed. The No Build Alternative would have no impact on the floodplains in the Study Area.

Proposed Alternative

Of the 158.7 acres of FEMA-mapped floodplain in the Study Area, approximately 81.1 acres from three areas are within the preliminary impact area. Figures 5-1 through 5-12 show the location of floodplains relative to the preliminary impact area. Floodplain impacts cannot be avoided because of the east/west nature of the Study Area and the north/south nature of the floodplains. Coordination with Iowa DNR and FEMA occurred as part of the early consultation process. No comments were received from either agency regarding floodplains. As design advances, efforts will be made to reduce the impacts on floodplains. In addition, an Iowa DNR Flood Plain Development Permit and Section 404 Permit would be required and applied for during final design.

5.3.4 Woodlands

A woodland is defined in the Iowa DOT Office of Location and Environment Manual (Iowa DOT, August 2009, and updated March 11, 2011) as the following: "1. The area consists of three acres or greater of forested land having at least 200 trees (3" diameter at breast height [dbh] or greater) per acre; or 2. The area consists of 1 acre or greater but less than three acres of forested land having at least 200 trees (3" dbh or greater) per acre and is connected to a larger tract of forested land with the entire area being greater than three acres (not including treed fencerows, property lines, etc.)". Based on the analysis of aerial photography, one woodland totaling 3.5 acres is located within the Study Area north of Prairie Creek adjacent to US 30 (Figure 5-7).

No Build Alternative

The No Build Alternative would not result in any expansion of US 30 in the Study Area. No construction activities would occur, and no new ROW would be needed. The No Build Alternative would have no impact on the woodland in the Study Area.

Proposed Alternative

Based on the preliminary impact area, the Proposed Alternative could impact 1.69 acres of the 3.5 acres of woodland present within the Study Area. As design advances, efforts will be made to reduce the impact on woodland.

Woodland mitigation would be required for the Project because the Iowa DOT standard for woodland impacts is 1 acre or more. Clearing of woodland vegetation would be kept to a minimum. Impacts to woodland will be mitigated per Iowa Code 314.23 which_states "Woodland removed shall be replaced by plantings as close as possible to the initial site, or by acquisition of an equal amount of woodland in the general vicinity for public ownership and preservation, or by other mitigation deemed to be comparable to the woodland removed, including, but not limited to, the improvement, development, or preservation of woodland under public ownership." Iowa DOT is considering various mitigation options to implement if the Project proceeds to construction, and would commit to and perform the mitigation.

5.3.5 Farmlands

A Federal project, program, or other activity that requires acquisition of ROW must comply with the provisions of the Farmland Protection Policy Act (FPPA). The purpose of the FPPA

is to "minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses, and to assure that Federal programs are administered in a manner that, to the extent practicable, will be compatible with State, unit of local government, and private programs and policies to protect farmland" (7 USC 4201(b)).

The FPPA governs impacts on farmland only. The FPPA defines farmland as prime farmland, unique farmland, or farmland that is of state or local importance. Land that is already in or committed to urban development or water storage does not qualify as farmland and is therefore not subject to the FPPA.

No Build Alternative

Under the No Build Alternative, no impacts on farmland or farm facilities would occur.

Proposed Alternative

Early in the engineering design process, the USDA NRCS Farmland Conversion Impact Rating for Corridor Type Projects (NRCS-CPA-106) form was completed for the generalized corridor to assess the effects of this conversion on farming and farm-related services in the area. This assessment considers the effects that the conversion of farmland as a result of a project would have on existing and future land use, the amount of existing farmable land in the county, the creation of economically non-farmable parcels, impacts on other on-farm investments, and effects on local farm services. Sites receiving a score of less than 160 points need not be given further consideration for protection. The Project received a score of 183 out of the possible 260 points for Benton County and 164 points for Tama County (Appendix C). Because the score was more than 160 points in both counties, the Project warrants an in-depth site review for concerns in conjunction with the FPPA. Based on this score, potential means to reduce the impact on farmland for revision of the NRCS-CPA-106 form were evaluated.

The preliminary impact area is based on initial surveys for the proposed highway expansion and includes a buffer to account for potential drainage or slope requirements. The total amount of farmland (outside existing ROW) that the Proposed Alternative would potentially convert to transportation use was estimated (based on the preliminary impact area) at approximately 1,117 acres (1,069 acres in Benton County and 47 acres in Tama County).

The Proposed Alternative would not create any non-farmable land. All of the farmland in the Study Area would still be accessible from existing roads.

Because the preliminary impact area is based on conceptual design and represents a conservative assessment of potential impacts, the designers may be able to reduce the preliminary impact area and further minimize farmland impacts. Initial alternatives considered included between 1,750 and 1,782 acres of land; the anticipated land within the preliminary impact area is 1,500 acres (1,152 acres outside of existing ROW). After a review of the initial alternatives, the currently proposed design was selected and modified to reduce impacts to various resources, including farmland. The current design reduces the footprint of the Proposed Alternative and minimizes impacts on farmland.

5.4 Physical Impacts

This section characterizes physical resources in the Study Area and addresses potential impacts of the No Build Alternative and the Proposed Alternative. The resources discussed are noise, contaminated and regulated materials sites, and utilities.

5.4.1 Noise

Sound levels are measured in units called decibels (dB). Because the human ear does not respond equally to all frequencies (or pitches) measured, sound levels are often adjusted, or weighted, to correspond to the frequency response of human hearing and the human perception of loudness. The weighted sound level is expressed in units called A-weighted decibels (dBA) and is measured with a calibrated sound level meter. Sound levels that correlate with the human perception are also expressed with the descriptor L_{eq}, defined as energy-equivalent sound level.

Typical agricultural cropland environments have a background noise level of about 45 dBA. The range of sound pressure levels most frequently encountered in evaluating traffic-generated noise on highways is 50 to 95 dB. The dominant noise source in the Study Area is vehicular traffic on US 30 and connecting roads as well as noise generated from farm equipment. Traffic noise consists of vehicular engine noise, exhaust noise, and tire noise from contact with the roadway surface. Other noise sources include aircraft overflights and traffic on other local roadways. Land uses in the Study Area likely to be sensitive to noise include agricultural farmsteads and residential properties located along US 30 and adjacent side roads. Commercial land uses would generally be less sensitive to noise. FHWA has developed Noise Abatement Criteria (NAC) based on land use activity. For residential areas and cemeteries (as well as other designated sensitive land uses), the Noise Abatement Criterion is 67 dBA; for businesses, it is 72 dBA. The Iowa DOT noise policy defines a noise impact as occurring when levels approach or exceed the NAC or when predicted future noise levels are 10 dBA or more above existing levels. Iowa DOT defines "approach" as coming within 1 dBA of the NAC, which are 66 dBA for residential areas and 71 dBA for businesses.

Traffic noise for the existing and future environment was predicted by roadway categories and other factors and by a detailed noise study (HDR, March 2012). The purpose of the noise study was to identify current noise levels in the Study Area and to quantify the impacts of the Proposed Alternative relative to the NAC noise levels. Traffic noise levels were estimated using the FHWA Traffic Noise Model, Version 2.5, based on traffic volume forecasts for peak hours in 2037 because these volumes would correspond to the highest projected noise levels.

As discussed in Section 5.1.1, Land Use, the Study Area is primarily agricultural; 45 noise receivers (38 residential, five commercial, and two cemeteries) were identified by the noise study. No future non-agricultural development is planned in the Study Area.

No Build Alternative

Under the No Build Alternative, noise levels in 2037 are predicted to be between 0 and 12 dBA higher than the existing noise levels (HDR, March 2012). Of the 45 sensitive

receivers in the Study Area, 14 residential properties, and one business would approach or exceed the NAC under the No Build Alternative.

Proposed Alternative

Under the Proposed Alternative, traffic is projected to increase, causing an overall increase in traffic noise along US 30. At specific receiver locations, excluding the residences and business that would potentially be relocated, noise levels would be between 3 dBA lower and 4 dBA higher than existing noise levels in the Study Area. The noise decreases are associated with receivers north of US 30 where the revised alignment is moving farther away from those residences, and the increases are primarily associated with the alignment moving closer to receivers south of US 30. The noise levels predicted for the Proposed Alternative in 2037 vary between 9 dBA lower to 2 dBA higher than the noise levels predicted for the No Build Alternative.

Of the 19 residences and one business that would potentially be relocated (see Section 5.1.4), 13 of the residences would approach or exceed the NAC; noise levels at six of the potentially relocated residences would substantially exceed existing noise levels. Excluding the potentially relocated residences, there are no instances of noise levels under the Proposed Alternative substantially exceeding existing condition noise levels in the Study Area. After construction, approximately 10 residences (that would not potentially be relocated) and four businesses would be farther from US 30; four residences would be closer to the highway, and five residences and one business would be approximately the same distance from the highway. The Prairie Lutheran Cemetery would be approximately the same distance from the highway, and the Calvary Catholic Cemetery would be farther from the highway. Traffic noise levels generated from the Proposed Alternative would vary from 43 dBA (2,111 feet from centerline of US 30) to 72 dBA (49 feet from centerline of US 30). Eight of the 14 receivers affected by the No Build Alternative (approach or exceed the NAC) could be relocated under the Proposed Alternative, and the noise level would be lower under the Proposed Alternative at three receivers. Excluding potential relocations, the Proposed Alternative would impact only four residential receivers and one business receiver located along US 30. The residential properties are predicted to experience traffic noise levels of 66 to 68 dBA by 2037. The business site is predicted to experience a traffic noise level of 72 dBA by 2037. Noise abatement in the form of a noise barrier was considered for all of these receivers but was determined not to be feasible or reasonable for three of the receivers because the necessary breaks in the barrier to access US 30 would render the barriers ineffective. Additionally, in accordance with Iowa DOT policy, noise barriers are generally not constructed for individual residences or businesses. Therefore, noise barriers were not recommended for any of the receivers.

During the construction phase of the Project, noise from on-site construction equipment and construction activities would add to the noise environment in the immediate Study Area. The driving and operation of construction equipment would also generate ground vibrations. The vibrations are not projected to be of a sufficient magnitude to affect normal activities of occupants in the Study Area. Increased truck traffic on area roadways would also generate noise associated with the transport of heavy materials and equipment. The noise increase and vibrations from construction activities would be temporary in nature and are expected to

occur during normal daytime working hours. Equipment operating at the Project site would conform to contractual specifications requiring the contractor to comply with all local noise control rules, regulations, and ordinances. Although construction noise impacts would be temporary, the following BMPs would be implemented to minimize such impacts:

- Whenever possible, limit operation of heavy equipment and other noisy procedures to non-sleeping hours.
- Install and maintain effective mufflers on equipment.
- Limit unnecessary idling of equipment.

5.4.2 Contaminated and Regulated Materials Sites

Properties in the Study Area where hazardous materials have been stored may present a future risk if spills or leaks have occurred. Contaminated or potentially contaminated properties are of concern for transportation projects because of the associated liability of acquiring the property through ROW purchase, the potential cleanup costs, and safety concerns related to exposure to contaminated soil, surface water, or groundwater.

A Phase I Environmental Site Assessment (ESA) was conducted to identify and describe regulated materials sites found within and near a 1,000-foot-wide corridor centered on the center line of US 30. This Phase I ESA involved a windshield survey to determine uses of properties and to observe any releases of regulated materials; it also involved an in-depth assessment conducted by reviewing agency records and/or interviewing property owners and/or operators, where necessary. For this Phase I ESA, all properties considered to be regulated materials sites were identified and evaluated as having recognized environmental conditions (RECs) (Montgomery Watson, May 2001). The potential environmental risk of each REC was assessed using high, moderate, low, and minimal risk criteria from Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009).

The Iowa DNR Facility Explorer (including contaminated sites and leaking underground storage tanks [LUST]) database (Iowa DNR, not dated) was reviewed. The Iowa DNR Land Quality Underground Storage Tank Leaking Underground Storage Tank (USTLUST) and Aboveground Storage Tank Database (Iowa DNR and Public Safety State Fire Marshal Office, not dated) was also searched. In addition, the U.S. Environmental Protection Agency (EPA) Federal Registry System database (EPA, March 15, 2012) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) Incident Database (PHMSA, March 14, 2012) were reviewed.

The records review and field reconnaissance of the Study Area resulted in the following risk classifications of sites within the Study Area (Montgomery Watson, May 2001; Iowa DNR, not dated; Iowa DNR and Public Safety State Fire Marshal Office, March 15, 2012; EPA, March 15, 2012; HDR, November 30, 2010):

- Minimal risk – the agricultural land with residences with no aboveground storage tanks (ASTs), and rural residences (acreages)
- Low risk – 13 farms with ASTs and two animal confinement operations

- Moderate risk – former Bullock's Standard, East Central Iowa substation (also referred to as the Van Horne substation), and former Youngville gas station, former PEMCO Fast Break gas station, former unnamed gas station, and former Midway gas station
- High risk – None

The following paragraphs provide details of conditions at the moderate- and high-risk sites and the rationale for the risk classification. The Phase I ESA identified each of the moderate- and high-risk sites with a number based on the Public Land Survey range in which it is located and a sequential numbering of contaminated sites. The locations of the moderate- and high-risk sites are labeled in Figures 5-1 through 5-12, as applicable.

Iowa DOT rated the former Bullock's Standard gas station (Site FG 12-20), located at 7285 14th Avenue (the northwest corner of 14th Avenue and US 30), as a moderate-risk site (Montgomery Watson, May 2001). Iowa DNR lists this site as a leaking underground tank (LUST) site (Iowa DNR and Public Safety State Fire Marshal Office, August 5, 2011a) and EPA (EPA, March 15, 2012). Four LUSTs for storage of gasoline were removed in September 1987. Petroleum-contaminated soil was removed in March 1991, and Iowa DNR issued a no action required letter on March 28, 1991 (Iowa DNR, not dated). Typically, a LUST site with a no further action would be classified as low-risk. However, this designation pre-dates Iowa's current risk-based corrective action rules, and in accordance with Iowa DOT's Office of Location and Environment Manual (Iowa DOT, August 2009), the site is considered a moderate risk.

The Van Horn substation (Site 11-19), located at the southwest corner of 19th Avenue and US 30, is operated by the East Central Iowa Rural Electric Cooperative. Typical sources of contamination at substations include lead-acid batteries and dielectric fluid (highly refined hydrocarbon oil) sometimes containing polychlorinated biphenyls (PCBs). The transformers contain non-PCB oil, and no spills have been reported at this site (Montgomery Watson, May 2001; Iowa DNR, not dated). Electrical substations are considered a moderate risk (Iowa DOT, August 2009).

Iowa DOT rated the former Youngville gas station (Site FG 10-14), located near the northeast corner of 24th Avenue and US 30, as a moderate risk (Montgomery Watson, May 2001). Highway plans from 1950 and 1957 indicate that this site, currently the Youngville Café, was formerly a gas station. According to the Phase I ESA, the current site owner reported that underground storage tanks (USTs) at the site were properly abandoned in place with review by Iowa DNR; the site was classified as a moderate risk REC due to the unconfirmed status of UST abandonment in place and the lack of available information related to potential subsurface petroleum impacts (Montgomery Watson, May 2001). This site is not in the Iowa DNR database for USTs and LUSTs (Iowa DNR and Public Safety State Fire Marshal Office, not dated) or listed in the EPA Facility Registry System (EPA, March 15, 2012).

Iowa DOT rated the former PEMCO Fast Break gas station (Site FG 12-42), located at the southwest corner of 16th Avenue and US 30, as a moderate-risk site due to potential petroleum impacts on groundwater and soil. This site is listed as a LUST site by Iowa DNR

(Iowa DNR and Public Safety State Fire Marshal Office, not dated), the Iowa DNR Facility Explorer (Iowa DNR, August 5, 2011b), and by EPA (EPA, March 15, 2012). The original building remains on site. The tank pit is located east of the station building. Four LUSTs formerly containing gasoline were removed in January 1992 (Iowa DNR and Public Safety State Fire Marshal Office, not dated). A Tier 2 report was completed and accepted by Iowa DNR on January 3, 2012, and Iowa DNR rates the LUST site as low risk (Iowa DNR and Public Safety State Fire Marshal Office, not dated); however, the site is rated as a moderate-risk site using Iowa DOT criteria.

Iowa DOT rated a former gas station (Site FG 11-38), located at the northeast corner of 21st Avenue and US 30, as a moderate-risk site due to unresolved questions regarding USTs and potential petroleum impacts on soil and groundwater (Montgomery Watson, May 2001). An unnamed garage currently operates at this site. This site is not in the Iowa DNR database for USTs or LUSTs (Iowa DNR and Public Safety State Fire Marshal Office, not dated) or listed in the EPA Facility Registry System (EPA, March 15, 2012).

Iowa DOT rated a former Midway gas station (Site FG 10-12), located at the southwest corner of US 218 (24th Avenue) and US 30, as a moderate-risk site due to potential petroleum impacts on soil and groundwater (Montgomery Watson, May 2001). It is believed that USTs were removed from this site sometime prior to the mid-1980s when Iowa DOT purchased the site and built a salt shed. The site is currently vacant. It is not believed that there has been a UST-related investigation of this site (Montgomery Watson, May 2001). This site is not in the Iowa DNR database for USTs or LUSTs (Iowa DNR and Public Safety State Fire Marshal Office, not dated) or listed in the EPA Facility Registry System (EPA, March 15, 2012).

As discussed in Section 5.1.1, there are approximately 40 residences and four businesses in and near the Study Area. Most of these residences and businesses were constructed prior to 1970 and would likely contain asbestos-containing materials, lead-based paint, PCBs in light ballasts, and mercury in thermostats and other electrical components. These residences would also contain appliances and air conditioners with refrigerants. ASTs are located at many of these residences; the Phase I ESA listed 20 ASTs (Montgomery Watson, May 2001). In addition to residences acquired for ROW, there are unlivable houses and remnants of houses in the preliminary impact area. The Phase I ESA notes the presence of buried foundations in the preliminary impact area (Montgomery Watson, May 2001).

No Build Alternative

The No Build Alternative would not involve construction of the Project, and regulated materials sites would not be affected. Any contamination at the sites has the potential to migrate. Petroleum contamination could possibly degrade naturally over time.

Proposed Alternative

Under the Build Alternative, the proposed expansion of US 30 would require additional ROW to accommodate wider pavement and shoulders and realignment of interchanges with IA 21 and US 218. As part of ROW acquisition, there is a potential for relocation of 19 residences (12 rural residences and seven dwellings on farmsteads) and the potential for one

full and one partial business relocation. Old unlivable houses and remnants of houses (including buried foundations) and a former gas station building at the southwest corner of US 30 and 16th Avenue (see Figure 5-5) would also be demolished. Regulated materials that could be encountered during demolition of the current residential and commercial structures on these properties include fuel storage tanks, asbestos, lead-based paint, light ballasts with polychlorinated biphenyls (PCBs), mercury in thermostats and other electrical components, and refrigerants in appliances and air conditioning units.

Any fuel or lubricants would be recycled or disposed of as hazardous waste. Storage tanks would be cleaned and recycled. All buildings to be demolished would be inspected for asbestos-containing materials (ACM). Bridges, other than those constructed entirely of Portland cement concrete or wood, would also be inspected for asbestos. In accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Iowa Clean Air Act, Iowa DNR would be notified 10 working days before demolition begins. All building debris and waste material would be recycled or disposed of in a licensed facility in accordance with applicable regulations.

Additionally, solid waste from animal operations could be encountered. The Prairie View Hog Farm at the southwest corner of US 30 and 13th Avenue could potentially be impacted. The facility, if impacted, would be demolished in accordance with Iowa Administrative Code 567-65.2(8) and 65.101. All manure would be removed from the facility within six months of closure and properly disposed of through land application.

Five former gas station sites and the Van Horne substation are within or near the preliminary impact area. Contamination associated with LUSTs (primarily benzene, toluene, ethylbenzene, and xylenes) could be encountered in the soil or groundwater, depending on the proximity of construction relative to the LUSTs and the depth of excavation or grading activities. The contractor should be informed of the potential for encountering contaminated soil (and potentially contaminated groundwater in borrow areas). The RECs discussed below could potentially be disturbed during construction of the Proposed Alternative.

Former Bullock's Standard gas station – The former LUST site is approximately 50 feet north of the preliminary impact area (Iowa DNR and Public Safety State Fire Marshal Office, February 22, 2011). An access road would be constructed into the site from 14th Avenue; grading to construct the access road would disturb soil within the area within the LUST site. Residual soil contamination could be encountered during grading and road bed preparation. The proposed profile of the highway expansion is approximately 15 feet higher than the existing profile along the proposed alignment. The depth to groundwater is greater than 6 feet (USDA NRCS, April 6, 2006) and would not likely be encountered during construction. It is possible, but not likely, that contamination would be encountered in the proposed borrow area to the southeast of the former Bullock Station if excavations reach the depth of groundwater. However, because contaminated soils at the Bullock site have been excavated and removed, the extent of potential groundwater contamination is limited.

Van Horne substation – The substation is within the preliminary impact area; the west-bound lanes would be constructed through the substation site. The proposed profile of the highway expansion is essentially the same elevation as the existing profile along the proposed

alignment. All of the facilities at the substation, including the ground grid beneath the surface, would be removed from this site and moved to a nearby location. All dielectric fluid and other regulated material would be removed from the existing site prior to demolition and reused, recycled, or disposed of as hazardous material. Based on the Phase I ESA, contaminated soil would not likely be encountered. Given the lack of reported spills at the substation and the use of non-PCB dielectric fluid, it is unlikely that contamination would be encountered at the proposed borrow area south of the substation.

The former Youngville gas station – The preliminary impact area is at the southern edge of this property. The location of former USTs is not known. The northern two lanes (closest to the former gas station site) would be constructed at approximately the same elevation as the existing grade; the southern two lanes would require approximately 5 feet of fill to construct. Given the uncertainty of the status of former USTs and the extent of any soil contamination, there is a moderate risk of encountering contaminated soil during grading activities.

The former PEMCO Fast Break gas station – The former LUST site is within the preliminary impact area; the east-bound lanes would be constructed through the site of the former LUST. The proposed profile of the highway expansion is approximately 1 to 2 feet higher than the existing profile along the proposed alignment. The LUST site is located in the area where the drainage ditch would be constructed along the southern edge of the eastbound lanes (Iowa DNR and Public Safety State Fire Marshal Office, February 22, 2011). The status of soil contamination is uncertain; contamination could be encountered during grading activities. The depth to groundwater is greater than 6 feet (USDA NRCS, April 6, 2006) and could be encountered during construction.

The former gas station and unnamed garage site – The preliminary impact area for expansion of US 30 could take up to 45 feet from the southern edge of this property, and the preliminary impact area for rebuilding the intersection with 21st Avenue could take up to 70 feet from the western edge of the property. The proposed profile of the highway expansion is approximately 5 to 6 feet higher than the existing profile along the proposed alignment. Construction of drainage ditches could require excavations of up to several feet below the existing grade along and near the southern and western edges of the property. The status of soil contamination is uncertain; contamination could be encountered during grading activities. The depth to groundwater is greater than 6 feet (USDA NRCS, April 6, 2006) and would not likely be encountered during construction. A proposed borrow area is located approximately 450 feet south of this site. If excavation for borrow material reaches the depth of groundwater, contamination could be encountered.

The former Midway gas station –The preliminary impact area is at least partially within this site; the exact location of the former gas station and former USTs is not known. The status of soil contamination is uncertain; contamination could be encountered during grading activities. Contamination at the proposed borrow area approximately 0.5 miles south of the former Midway gas station is unlikely because of the distance from the former UST site.

If any contamination above regulatory limits is encountered at any of these sites, work would be stopped and Iowa DOT would be notified. Proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

5.4.3 Utilities

The potential for the Project to affect utilities in the Study Area was considered by identifying utility locations and orientation in relation to US 30, IA 21, and US 218. Potential effects were evaluated with respect to major utilities crossed by or located within the ROW for the Proposed Alternative.

The following utility companies and municipalities provide service to the Study Area:

- Water – Powesheik Water Association
- Electricity (including the Van Horne substation) and gas – East Central Iowa Rural Electric Cooperative
- Telecommunications – Iowa Telecom and Mediacom

A fiber optic building is located approximately 2,000 feet east of IA 21 on the north side of US 30. Access to this building is currently off of US 30.

Two cell towers are located near the Study Area. The access road to the cell tower southeast of 19th Avenue and US 30 is partially within the preliminary impact area, but the cell tower and guy lines are just outside of the Study Area. A cell tower located near the northwest corner of 23rd Avenue and US 30 is adjacent to the Study Area. The access road leading to the cell tower is also adjacent to the Study Area.

Some residents within the Study Area continue to rely on private wells for domestic water supply. Sanitary sewer service is not provided in the Study Area. Private septic systems are used to treat sewage (Benton County Planning and Zoning, February 14, 2011).

No Build Alternative

Under the No Build Alternative, US 30 would not be expanded and utility line relocation would not affect utility service.

Proposed Alternative

Under the Proposed Alternative, the Van Horne substation would be moved from its current location to a nearby site; the specific location of the new substation has not yet been determined. Access for the fiber optic building (see Figure 5-1) would be moved to the east to allow for the construction of the west-bound off-ramp from US 30 to north-bound IA 21. Details of the access road would be developed in the design process and would be documented in the FONSI, if a FONSI is determined to be the applicable NEPA decision document. Access to the cell tower southeast of 19th Avenue and US 30 would likely be temporarily closed (for a few days) during reconstruction of 19th Avenue (See Figure 5-8). Although access to the cell tower northwest of 23rd Avenue and US 30 from US 30 could be limited during construction, access from 23rd Avenue via 72nd Street would not be affected by the Proposed Action (see Figure 5-10).

As detailed design plans are developed for the Proposed Alternative, construction activities would be coordinated with public utilities to avoid potential conflicts and to minimize planned interruptions of service. When service interruptions are unavoidable, an effort would be made to limit their duration.

5.5 Cumulative

A cumulative impact is defined 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. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time" (40 CFR 1508.7). Cumulative impacts include the direct and indirect impacts of a project together with impacts from reasonably foreseeable future actions of others. For a project to be reasonably foreseeable, it must have advanced far enough in the planning process that its implementation is likely. The impacts of reasonably foreseeable future actions not associated with a new interchange include the impacts of other Federal, state, and private actions. Reasonably foreseeable actions are not speculative, are likely to occur based on reliable sources, and are typically characterized in planning documents.

The assessment of the cumulative impacts of Federal, state, and private actions is required by Council of Environmental Quality (CEQ) regulations developed for implementing NEPA (40 CFR 1500-1508). Cumulative impacts of the Proposed Alternative were evaluated in accordance with CEQ guidance (CEQ, January 1997; CEQ, June 24, 2005) and other sources, including FHWA's "Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process" (FHWA, January 31, 2003) and FHWA's "Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process" (FHWA, April 1992).

The assessment focused on several resources susceptible to cumulative impacts. Additionally, the timelines of other reasonably foreseeable major projects that would likely occur in the time frame of the Project were compared to assess the combined effects of these projects on the target resources. The cumulative impact assessment also considered the baseline conditions of the target resources and the region's resources, and determined whether any regionally significant cumulative impacts could occur.

5.5.1 Local Projects

There are three roadway projects proposed to occur within Fiscal Year 2013 along US 30 within the Study Area.

- Bridge deck overlay for a bridge over Prairie Creek 1.7 miles east of County Highway V-44 (16th Avenue)
- Bridge deck overlay for a bridge over Prairie Creek 1.2 miles west of County Highway V-66 (21st Avenue)
- Culvert replacement and ROW acquisition for a crossing over a stream 1.5 miles east of County Highway V-66 (21st Avenue) (this project would extend into Fiscal Year 2014)

Three other projects are located near the Study Area: the US 30 Marshall and Tama Counties Improvements, the US 30 Tama County Proposed Expansion, and a bridge replacement on County Highway V56 (19th Avenue) over Prairie Creek (approximately 0.8 mile south of US 30). The bridge replacement on County Highway V56 is programmed for Fiscal Year 13 (Iowa DOT, September 30, 2011). The US 30 Tama County project extends from the US 30 Marshall and Tama Counties Improvements to the western limits of the Study Area. The US 30 Marshall and Tama Counties Improvements modernize US 30 by upgrading from two lanes to four lanes in addition to the construction of two bypasses: Le Grand and Tama/Toledo. The US 30 Tama County Proposed Expansion converts the segment of US 30 between the US 30 Marshall and Tama Counties Improvements and the US 30 Benton County Proposed Expansion from two to four lanes. Construction of the US 30 Marshall and Tama Counties Improvements was recently completed, whereas the US 30 Benton County Proposed Expansion would occur within the next several years and the US 30 Tama County Proposed Expansion is only in the early stages of the NEPA process and has not been programmed yet for construction. The recently completed US 30 Marshall and Tama Counties Improvement is carried forward for consideration of cumulative impacts because past major projects completed recently within or adjacent to the Study Area for the proposed Project contribute to ongoing regional impacts. Figure 5-13 shows the locations of these projects in relation to the Study Area.

5.5.2 Key Resources Affected

The analysis of cumulative impacts focuses on the key resources potentially affected by the Proposed Alternative and other reasonably foreseeable actions in the Study Area whose impacts overlap with those of the Proposed Alternative. Specifically, the analysis focuses on ROW and farmlands, relocation potential, transportation, historical sites or districts, wetlands, surface waters and water quality, floodplains, woodlands, and contaminated and regulated material sites. The Proposed Alternative would be constructed within a transportation corridor in a rural area and would require an increase in ROW to accommodate the additional lanes and interchanges. The Proposed Alternative would alter (improve) traffic flow and would reduce available farmland in the Study Area.

Right-of-Way and Farmlands

Construction of the Proposed Alternative would result in a net loss of available farmland and the acquisition of additional ROW. As discussed in Section 5.1.1 and Section 5.3.5, efforts will be made to minimize the amount of ROW acquired and the impacts on farmland to the extent practicable as design advances. The other reasonably foreseeable projects in the vicinity of the Study Area would also result in a net loss of available farmland. However, most of Tama County and Benton County are zoned agricultural, and both counties have ordinances that restrict the conversion of agricultural land to non-agricultural development; therefore, the cumulative impact on farmlands, though adverse, is not considered significant.

Relocation Potential

The Proposed Alternative could potentially impact 19 residences (12 rural residences and seven dwellings on farmsteads) as well as one full and one partial business relocation. The US 30 Marshall and Tama Counties Improvements required relocations of 17 farmsteads, 17

residences, and 3 businesses, and relocations are anticipated for the US 30 Tama County Proposed Expansion. Relocations have been or will be minimized to the extent practicable; in both counties, however, numerous homes and businesses are located adjacent to US 30, making it impossible to avoid all relocations. The majority of displaced residents and businesses are expected to relocate within the same county, and the relocations would be completed in accordance with applicable regulations. Therefore, the cumulative impact of the relocations, though adverse, is not considered significant for the counties affected.

Transportation

Construction of the Proposed Alternative would have a beneficial impact on transportation in the US 30 corridor by improving the safety of crossing or merging onto US 30 and creating direct, grade-separated access across US 30 at IA 21 and US 218. The US 30 Marshall and Tama Counties Improvements helped extend the four-lane expansion of US 30, and the US 30 Tama County Proposed Expansion projects would have similar effects on transportation, leading to a beneficial cumulative impact on transportation.

The US 30 expansion would have a beneficial impact on public transportation through improved safety. Public transportation is not provided in Tama County, so there would not be any cumulative impact. Rail, air, and water transportation are not present in or near the Study Area; thus, there would be no cumulative impact on these modes of transportation.

As noted in the introduction to local projects, three road projects are programmed for US 30 within the Study Area for Fiscal Year 2013. These projects are scheduled to be completed before commencement of the Proposed Alternative; however, if the projects are delayed and the construction timeframe overlaps with the proposed expansion of US 30, traffic on US 30 would either be detoured or reduced to one lane for both directions. A temporary increase in travel time on US 30 would occur during the construction timeframe for these three projects.

A bridge replacement on County Highway V56 (also known as 19th Avenue) is programmed for Fiscal Year 2013. This bridge is located approximately 0.8 miles south of US 30. If the construction timeframe overlaps with the proposed expansion of US 30, out-of-distance travel could increase for residents in the vicinity of V56, US 30, and 74th Street. This would not significantly contribute to any cumulative affects.

The Proposed Alternative has the potential to obstruct airspace temporarily during construction. Long-term obstructions are expected to be avoided or minimized in compliance with FAA regulations. Construction of the interchange included in the US 30 Marshall and Tama Counties Improvements had a similar potential for airspace obstruction. The US 30 Tama County Proposed Expansion is not expected to result in an obstruction of airspace at this time because all work would be at grade; if bridge construction is required, however, the use of a crane could temporarily obstruct airspace. After further coordination with FAA as design advances, the Proposed Alternative would not be considered a significant contributor to cumulative impacts on air transportation.

Historical Sites or Districts

Three historic properties were identified within the Study Area; however, the Proposed Alternative would not adversely affect the properties. A finding of no adverse effect has been determined for the two historic properties eligible for listing on the NRHP and the NRHP-listed Youngville Café; SHPO concurrence has been received on this finding. Three archaeological sites and two historic properties potentially eligible for listing on the NRHP have been identified in the vicinity of the US 30 Marshall and Tama Counties Improvements. The two historic properties also qualified for protection under Section 4(f) (23 CFR 774, et seq., Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites), but there were no feasible and prudent alternatives to avoid the impacts. Impacts were mitigated through a Memorandum of Agreement. One historic property has been identified within the vicinity of the US 30 Tama County Proposed Expansion; a previous historic property near the border of the US 30 Marshall and Tama Counties project was demolished, and impacts were addressed through the Memorandum of Agreement. It is possible that the US 30 Tama County Proposed Expansion would not impact the one historic property, and no other reasonably foreseeable project would affect the properties. Consequently, no cumulative impacts on historic sites or districts are projected to occur from the Proposed Alternative. Historic resources qualifying for protection under Section 4(f) are also not expected to experience cumulative impacts resulting from the US 30 Benton County Proposed Expansion. Based on the no adverse effect determination for the three historic properties, FHWA concurred with a *de minimis* use finding.

Wetlands

The Proposed Alternative would cause unavoidable impacts on wetlands. The US 30 Marshall and Tama Counties Improvements impacted wetlands, and the US 30 Tama County Proposed Expansion also would impact wetlands. The wetlands affected by the three projects would be spread over approximately 33 miles, and the three projects would not affect the same wetlands. Given that cumulative wetland impacts in the area of US 30 are expected to be minimized to the extent practicable and that the impacts would be addressed under Section 404 of the Clean Water Act, no adverse cumulative impacts on wetlands are anticipated.

Surface Waters and Water Quality

The Proposed Alternative, as well as the other reasonably foreseeable projects, would require grading of more than 1 acre and an NPDES construction permit with an SWPPP that identifies measures for protecting surface water quality. The preliminary impact area of the Proposed Alternative would, for the most part, not be located in the same watershed as the US 30 Marshall and Tama Counties Improvements and the US 30 Tama County Proposed Expansion. Given the nature of surface waters, existing water quality, and the protective measures to minimize runoff and erosion, cumulative impacts on surface waters and water quality are not anticipated.

Floodplains

Because of their generally east/west orientation, the projects considered in the cumulative impacts analysis would cross several different floodplains. With the minimization of floodplain impacts and the approval process for an Iowa DNR Flood Plain Development Permit for each project, the cumulative impact on floodplains is expected to be minor.

Woodlands

Although the Proposed Alternative would have an impact on one small area of woodlands, the US 30 Tama County Proposed Expansion is expected to have the greatest impact of the three projects considered in the cumulative impacts analysis because of the amount of woodland present within that study area for that project. Because Iowa Code 314.23 requires that woodlands removed be replaced at a nearby location for preservation, there would be a minor reduction in woodland area in the short term as the mitigation area develops. The long-term cumulative impact would be negligible.

Contaminated and Regulated Material Sites

Six moderate- risk regulated material sites were identified within the area affected by the Proposed Alternative. The US 30 Marshall and Tama Counties Improvements did not impact regulated material sites. Two high-risk regulated materials sites (an auto shop and former gas station) and one moderate-risk regulated material site (underground storage tank) have been identified within the corridor of the US 30 Tama County Proposed Expansion. However, any site encountered would be handled in accordance with regulations, and the sites are distant from one another; therefore, no cumulative impacts from disturbing contamination or regulated material sites are anticipated.

5.6 Streamlined Resource Summary

The streamlined process developed by Iowa DOT and FHWA was used to focus the analysis on those resources potentially affected by the Project and to eliminate or decrease the description and impact analysis of resources not affected by the Project. Appendix A contains a Streamlined Resource Summary indicating the process used to identify resources that are not within the Study Area or would not be affected by the Project. It also includes the rationale for performing only limited analysis on resources not described or analyzed in Section 5. Table 5-1 summarizes the differences in impacts on resources which would result from the No Build Alternative and the Proposed Alternative. The table does not list resources for which the anticipated impact would not differ substantially.

Table 5-1
Summary of Impacts

Resource	No Build Impacts	Build Impacts
Land Use	No change	Potential impact to 1,500 acres of land within preliminary impact area; potential conversion of 1,117 acres of agricultural land, 31 acres of residential land, 3 acres of commercial land, and less than 1 acre of exempt land outside of existing ROW to transportation use.
Economic	No change in current trends	Safer access to businesses; 0.3 percent reduction in county tax revenue; reduction in school district tax valuation by as much as 0.7 percent; 2.1, 3.6, and 4.5 percent decrease in the tax base of Eldorado, Kane, and Union townships, respectively; 2.6, 2.0, 0.2, and 1.6 percent decrease in the tax base of Fire Protection Districts 1, 2, 4 and 5, respectively.
Right-of-way	None	Potential to impact up to 1,152 acres of additional land outside of existing ROW
Relocation Potential[a]	None	Potential relocation of 19 residences (12 rural residences and seven dwellings on farmsteads)[b] with the potential of one full and one partial business relocation
Construction and Emergency Routes	No construction impacts or change in emergency routes	Temporary increase in travel distance for emergency routes during construction; long-term improved access across US 30
Transportation	No change Temporary road closures due to accidents at at-grade interchanges would continue.	Increased safety and improved access across US 30
Historical Sites or Districts	No effect on historic properties	No adverse effect on historic properties
Archaeological Sites	No effect on historic properties	No effect on historic properties[c]
Cemeteries	No impact	No impact
Wetlands	No impact	6.30 acres of impact within the preliminary impact area
Surface Waters and Water Quality	No impact	12,683 linear feet of surface waters within the preliminary impact area; slight increase in surface water runoff due to additional paved surfaces
Floodplains	No impact	81.1 acres within the preliminary impact area
Woodlands	No impact	1.69 acre within the preliminary impact area
Farmlands	No impact	1,117 acres of farmland within the preliminary impact area

Resource	No Build Impacts	Build Impacts
Noise	Nine residential receivers and one business receiver affected	Four residential and one commercial receiver affected
Contaminated and Regulated Materials Sites	No impact	Contamination could be encountered at four of the six contaminated and regulated materials sites; contamination is not likely to be encountered at two of the sites. Contamination could be encountered at one of the potential borrow sites but is not likely to be encountered at other potential borrow sites. Regulated materials in structures to be demolished would be removed and disposed of prior to demolition.
Utilities	No impact	Van Horne substation would be relocated, and potential limited disruptions of utility service could occur. The access road to a fiber optic building near US 30 and IA 21 would be modified. Access from US 30 to the cell tower near 19th Avenue and US 30 could be temporarily limited during construction.

Notes:

[a] *Structures are potentially within the construction footprint; detailed work to determine potential avoidance measures is pending detailed design.*

[b] *Based on the preliminary impact area, six of the dwellings and other structures on farmsteads and some of the rural residences could potentially be moved or reconstructed on remaining property.*

[c] *Effect determination is assumed and needs to be confirmed through SHPO consultation.*

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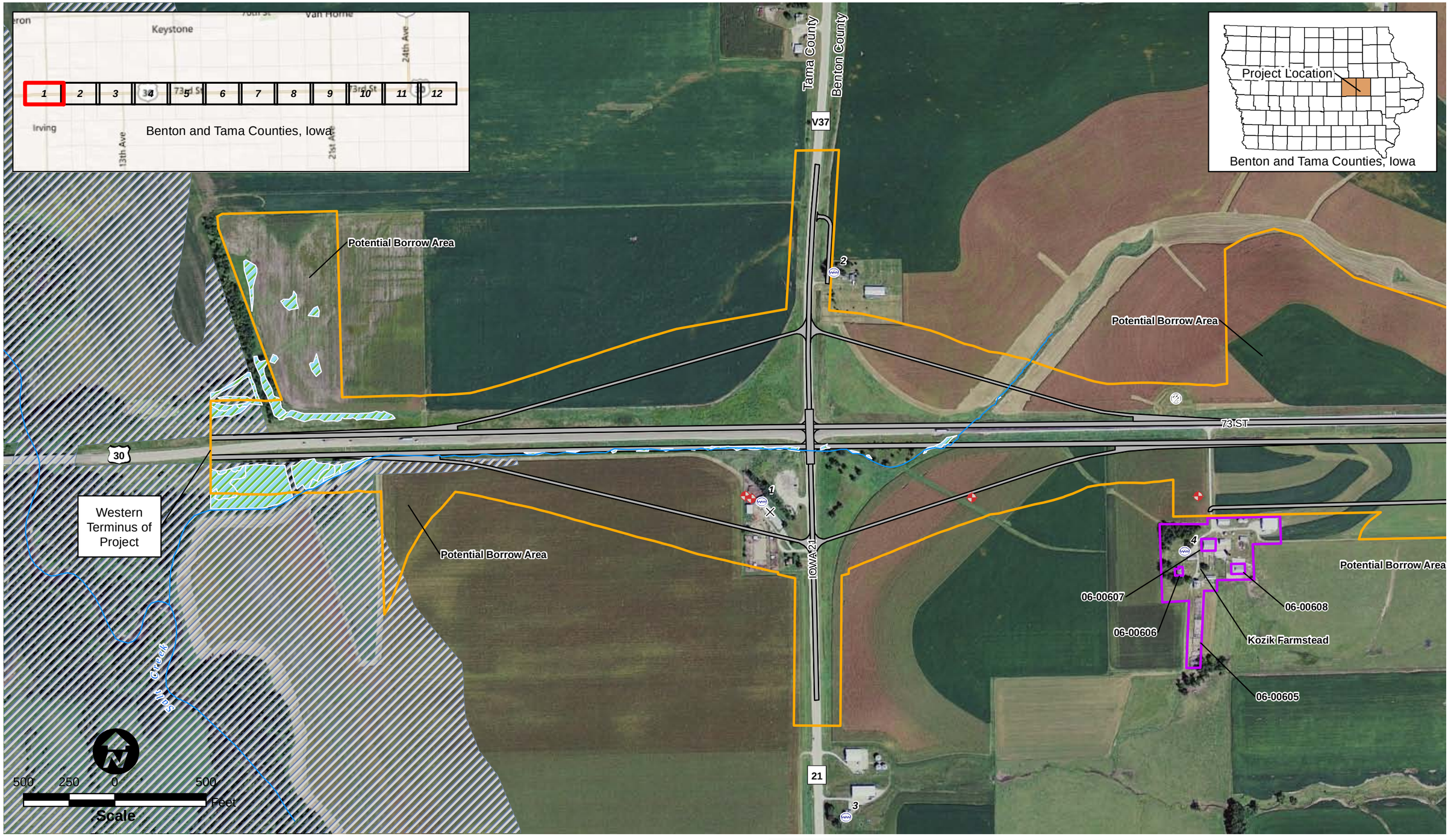

Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
- Potential Business Relocation
- Potential Business Displacement
- Noise Receiver (1)
- Groundwater Well
- Waters of the U.S.
- Wetland
- 100-Year Floodplain
- Historic Property (06-00605)
- Woodland
- Preliminary Impact Area

Iowa Department of Transportation

Environmental Constraints

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Environmental Assessment

DATE
April 2012

FIGURE
5-1

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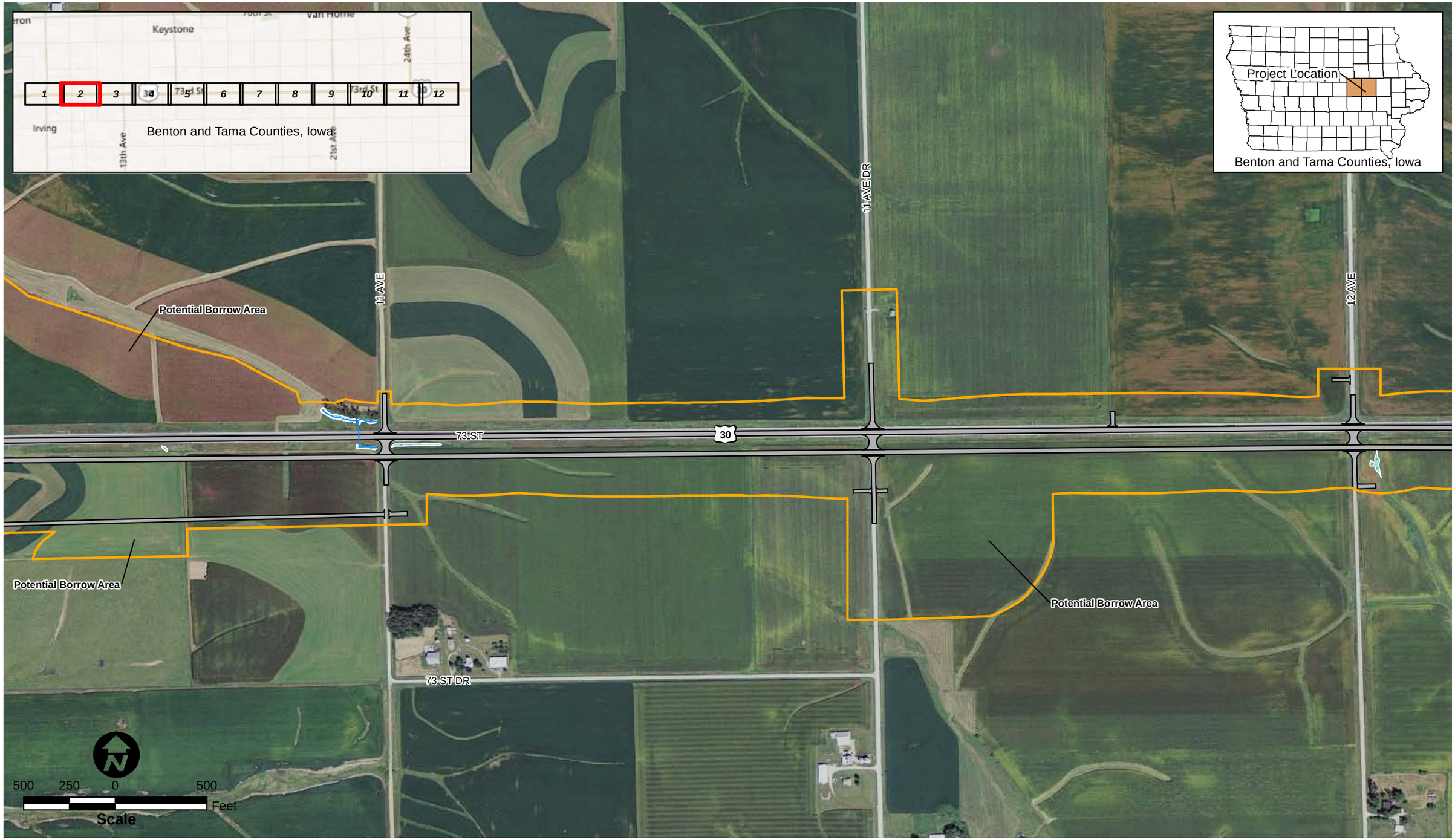

Legend

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FIGURE
5-2

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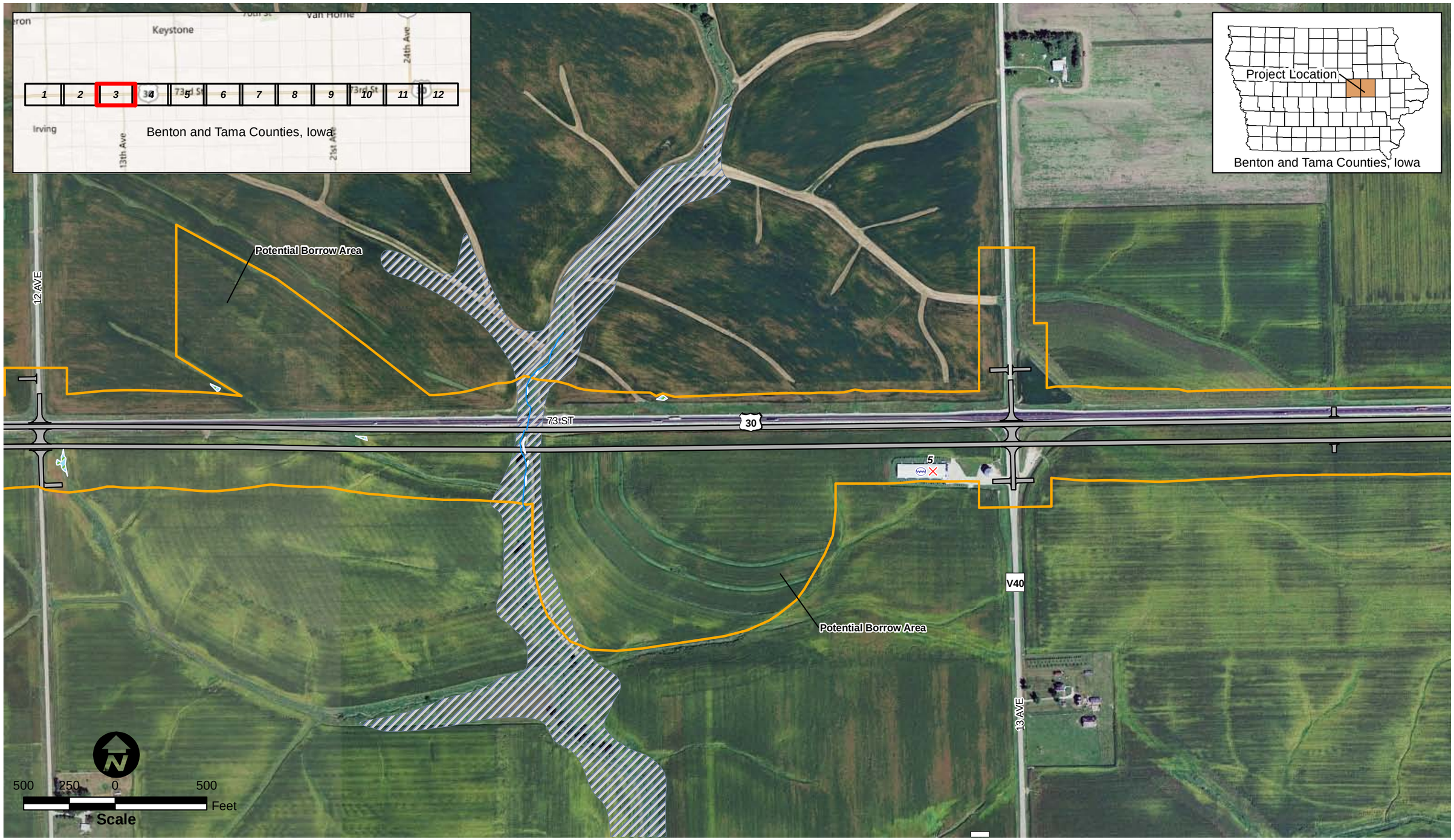

Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
- Potential Business Relocation
- Potential Business Displacement
- Noise Receiver (1)
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- Wetland
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FIGURE
5-3

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Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
- Potential Business Relocation
- Potential Business Displacement
- Noise Receiver (1)
- Groundwater Well
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- Wetland
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FIGURE
5-4

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Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
- Potential Business Relocation
- Potential Business Displacement
- Noise Receiver (1)
- Groundwater Well
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- Wetland
- 100-Year Floodplain
- Historic Property (06-00605)
- Woodland
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FIGURE
5-5

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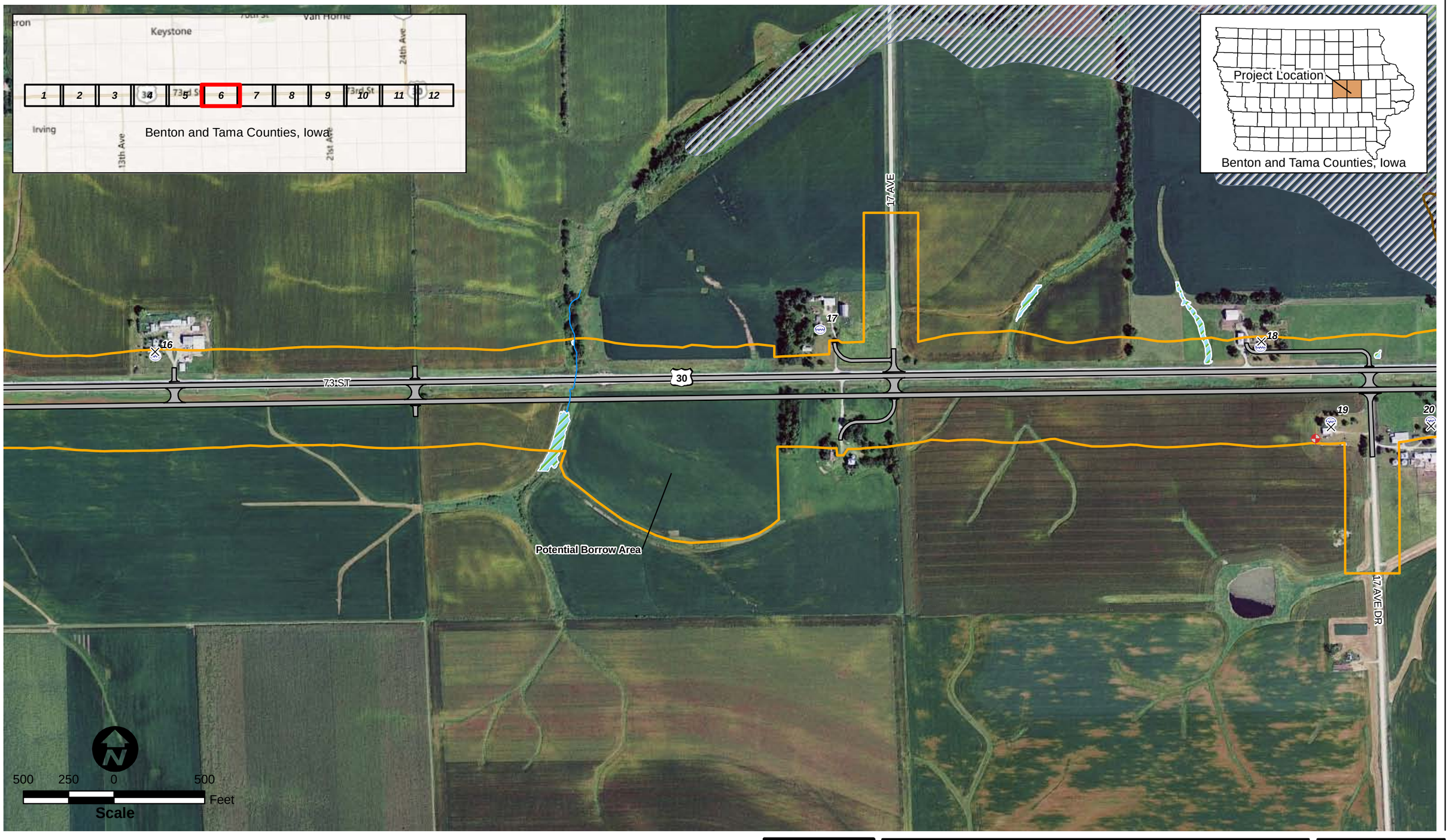

Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
- Potential Business Relocation
- Potential Business Displacement
- Noise Receiver (1)
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FIGURE
5-6

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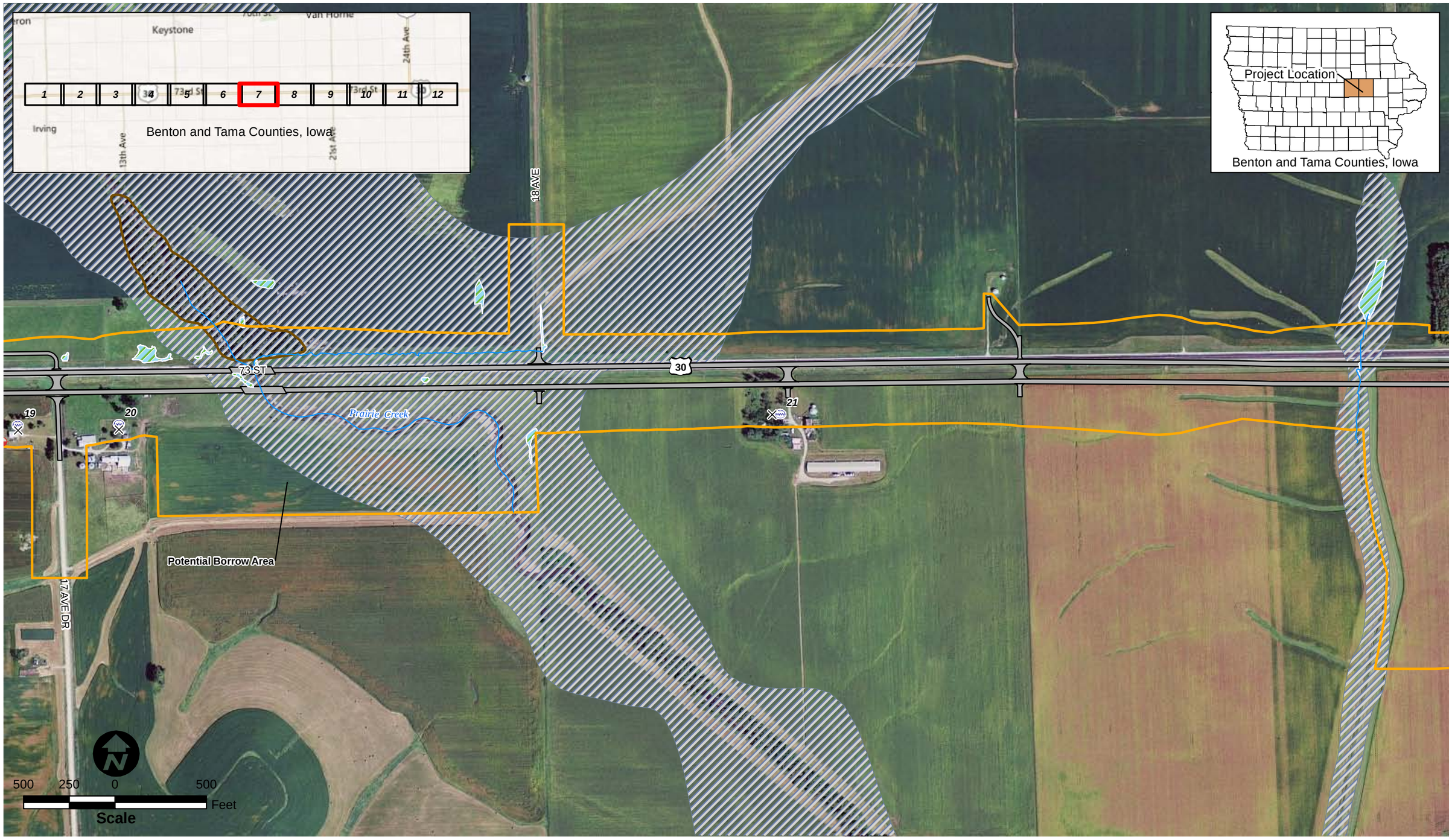

Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
- Power Substation
- Potential Residence Relocation
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FIGURE
5-7

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Project Location

Benton and Tama Counties, Iowa

V56

20 AVE

Potential Borrow Area

23

22

Calvary Catholic Cemetery

25

24

30

73 ST

11-19

26

Potential Borrow Area

Potential Borrow Area

19 AVE

500 250 0 500

Feet

Scale

Keystone

Van Horne

24th Ave

1 2 3 4 5 6 7 8 9 10 11 12

Irving

13th Ave

21st Ave

Benton and Tama Counties, Iowa

Legend

- Fiber Optic Facility
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- Regulated Materials Site (FG 12-20)
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FIGURE
5-8

Legend

- Fiber Optic Facility
- Cemetery
- Regulated Materials Site (FG 12-20)
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FIGURE
5-9

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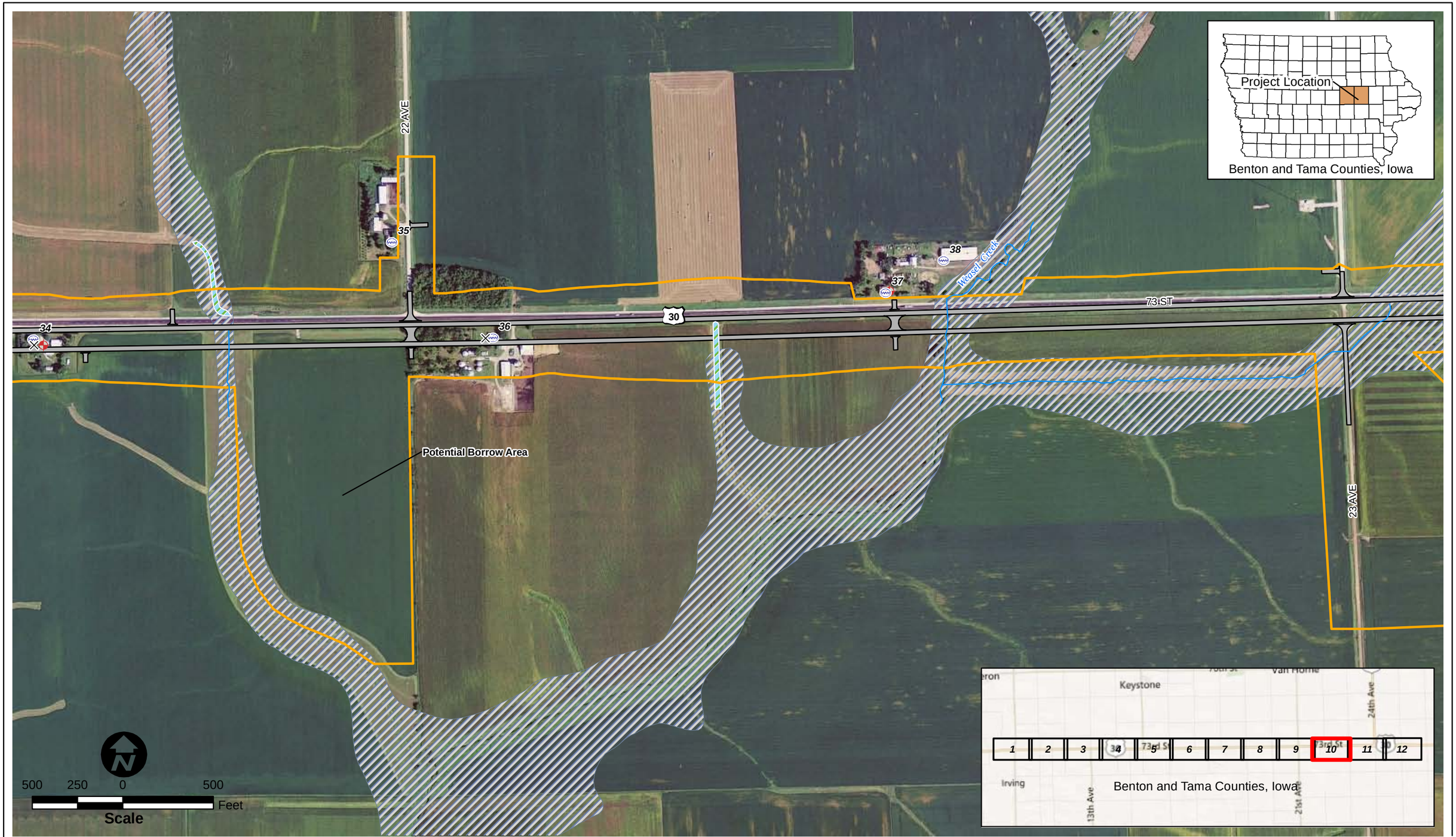

Legend

- Fiber Optic Facility
- Cemetery
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- Potential Business Relocation
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FIGURE
5-10

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Noise Receiver 41 located approximately 1200 ft. north of Preliminary Impact Area

Project Location

Benton and Tama Counties, Iowa

218

23 AVE

73 ST

30

Youngville Cafe
06-00544

39

43

FG 10-14

44

45

FG 10-12

Prairie Lutheran Cemetery

40

Potential Borrow Area

24 AVE

V70

Keystone

Van Horne

24th Ave

13th Ave

21st Ave

1 2 3 4 5 6 7 8 9 10 11 12

Benton and Tama Counties, Iowa

Noise Receiver 42 located approximately 2500 ft. south of Preliminary Impact Area

500 250 0 500

Feet

Scale

Legend

- Fiber Optic Facility
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- Regulated Materials Site (FG 12-20)
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FIGURE
5-11

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Legend

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FIGURE
5-12

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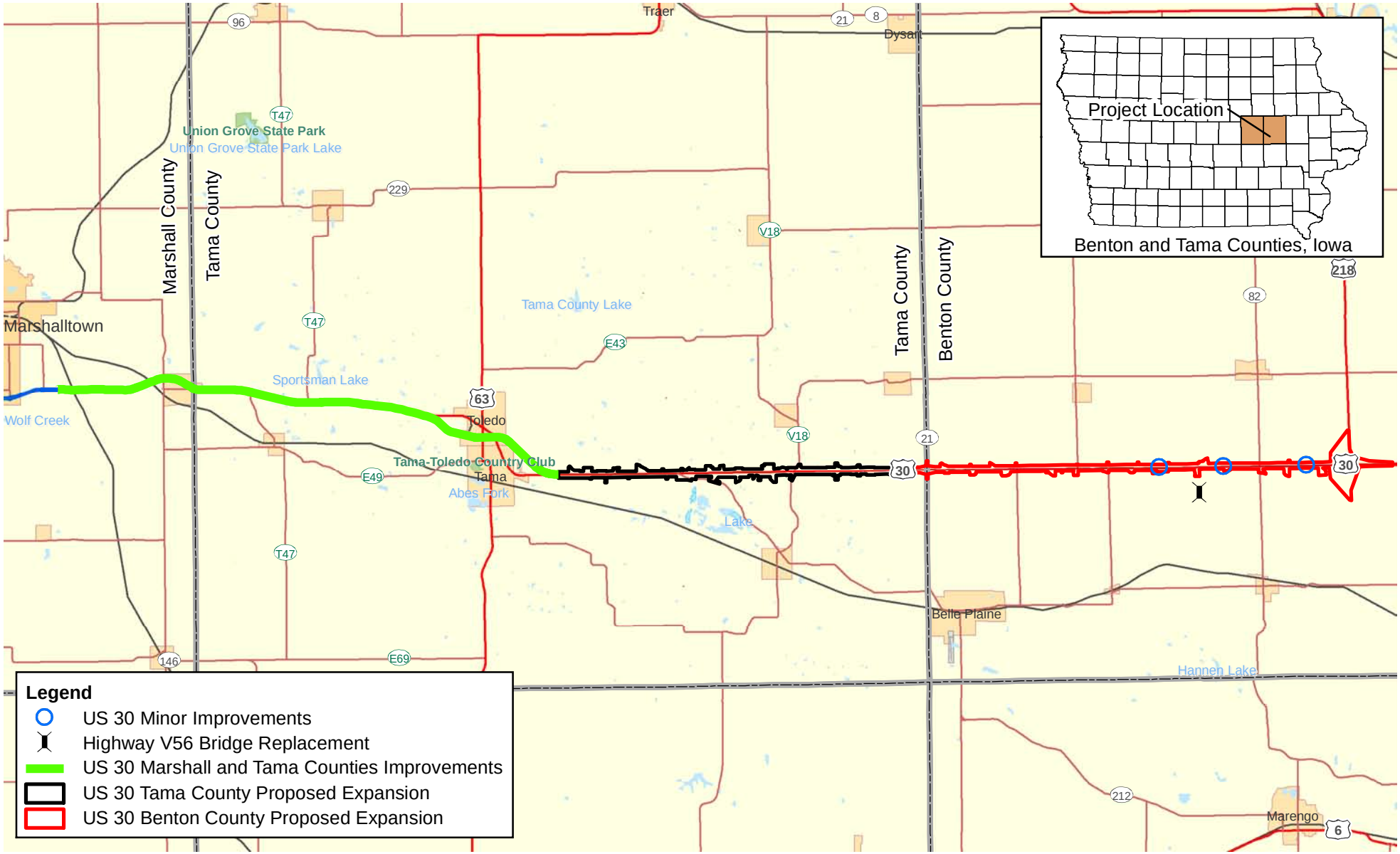

4.5 2.25 0 4.5
Miles
Scale

Iowa Department of Transportation

Projects in or near the Study Area

US 30 Benton County Proposed Expansion
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April 2012

FIGURE
5-13

SECTION 6

DISPOSITION

SECTION 6
DISPOSITION

This streamlined EA concludes that the Project is necessary for safe and efficient travel within the Project corridor and that the Project meets the purpose and need. The Project would have no significant adverse social, economic, or environmental impacts of a level that would warrant an EIS. Selection of the alternative to implement would occur following completion of the public review period and public hearing.

This EA is being distributed to the agencies and organizations listed in Sections 6.1 and 6.2, below. Individuals receiving this EA are not listed for privacy reasons.

6.1 Federal Agencies

Federal Aviation Administration
Federal Emergency Management Agency
Federal Highway Administration – Iowa Division
U.S. Army Corps of Engineers – Rock Island District (Regulatory) and Omaha District (Planning)
U.S. Department of Agriculture – Natural Resources Conservation Service
U.S. Department of the Interior – Office of Environmental Policy and Compliance
U.S. Environmental Protection Agency – Region 7, National Environmental Policy Act Team
U.S. Fish & Wildlife Service – Rock Island Field Office

6.2 State Agencies

Iowa Department of Agriculture and Land Stewardship
Iowa Department of Natural Resources – State Office and Field Office #1 (Manchester)
Iowa Soil and Water Conservation
Iowa Department of Transportation
State Historical Society of Iowa

6.3 Local/Regional Units of Government

Benton County Board of Supervisors
Benton County Conservation Board
Benton County Engineer
Benton County Historical Society
City of Belle Plaine – Mayor, Public Works Department, Parks and Recreation Director
City of Blairstown – City Clerk
City of Keystone – Mayor, City Council, City Manager
City of Van Horne – Mayor, City Council, Public Works Director
East Central Iowa Council of Governments
Iowa Valley Resource Conservation & Development

6.4 Locations Where this Document Is Available for Public Review

Blairstown Public Library
305 Locust Street Suite 2
Blairstown, Iowa 52209

Belle Plaine Public Library
904 12th Street
Belle Plaine, Iowa 52208

Federal Highway Administration
105 6th Street
Ames, IA 50010

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Iowa Department of Transportation
8723 Northwest Boulevard
Davenport, IA 52809

6.5 Potential Permits Required for the Project

The Project would require a Section 401 water quality certification, Section 404 Clean Water Act permit for wetland and stream impacts, and a National Pollutant Discharge Elimination System General Stormwater Discharge Permit for Construction Activities.

6.6 Statewide Transportation Improvement Program and Transportation Improvement Program Status

The acquisition of ROW for the Project has been programmed for 2014 and 2015 in the Iowa Statewide Transportation Improvement Program (STIP) 2012-2015 (Iowa DOT, September 30, 2011), the 2012 – 2016 Iowa Transportation Improvement Program (Iowa DOT, June 14, 2011), and is currently included in the Final 2012-2015 Transportation Improvement Program (TIP) prepared by the East Central Iowa Council of Governments (ECICOG) for 2012 (ECICOG, June 30, 2011). Iowa DOT District 6 is working to include construction of the Project in a future STIP and TIP, and the ECICOG would include the construction program in a future TIP.

SECTION 7

COMMENTS AND COORDINATION

SECTION 7
COMMENTS AND COORDINATION

This section includes a summary of agency coordination, public involvement, and tribal coordination that has occurred during the development of this EA. Future public involvement efforts that are planned for the Project are also discussed. Appendix B contains agency and tribal comment letters received in response to Iowa DOT's coordination request letters to initiate the NEPA process for the Project.

7.1 Agency and Tribal Coordination

Early agency coordination began on August 10, 2010, with letters sent to the Federal, state, and local government agencies listed below. In addition, correspondence was sent to tribes on August 4, 2010. The letters announced the initiation of the NEPA process for the US 30 Benton County Proposed Expansion, solicited feedback as it relates to the agencies' relevant areas of expertise, and solicited tribal interest in the Project.

Federal Agencies

- Federal Emergency Management Agency
- U.S. Army Corps of Engineers (USACE) – Rock Island District (Regulatory) and Omaha District (Planning)
- U.S. Department of Agriculture – Natural Resources Conservation Service (NRCS)
- U.S. Department of the Interior – Office of Environmental Policy and Compliance
- U.S. Environmental Protection Agency (EPA) – Region 7
- U.S. Fish & Wildlife Service (USFWS) – Rock Island Field Office

State Agencies

- Iowa Department of Agriculture and Land Stewardship
- Iowa Department of Natural Resources – State Office and Field Office #1 (Manchester)
- Iowa Soil and Water Conservation
- State Historical Society of Iowa

Local/Regional Units of Government

- Benton County – Board of Supervisors, Conservation Board, and Engineer
- Benton County Historical Society
- City of Belle Plaine – Mayor, Public Works Director, Parks and Recreation Director

- City of Blairstown – City Clerk
- City of Keystone – Mayor, City Council, City Manager
- City of Van Horne – Mayor, City Council, Public Works Director
- East Central Iowa Council of Governments
- Iowa Valley Resource Conservation & Development

Tribes

- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma
- Otoe-Missouria Tribe
- Sac and Fox Nation of Mississippi in Iowa
- Sac and Fox Nation of Missouri
- Sac and Fox of Oklahoma

Written responses to the request for early coordination are provided in Appendix B. The substantive comments received are summarized as follows:

- Iowa DNR: Review of the Land and Water Conservation Fund recreation properties located along the Project corridor has shown no Federal projects near the Study Area.

  Additional coordination with Iowa DNR is requested with respect to a potentially rare plant species in Iowa, the rose blackberry (*Rubus rosa*), which is under review for possible state listing. If listed species or rare communities are found during the design or construction phases, additional studies and/or mitigation may be required. A stormwater discharge permit for construction would be required if the Project would disturb more than 1 acre. Visible emissions of fugitive dust should be managed to prevent their transport into adjacent properties during construction. A sovereign lands construction permit pursuant to Chapter 461A of the Iowa Code is not required; however, before proceeding with the Project, any other permits that are required must be obtained from Iowa DNR or other state agencies and Federal agencies.

  Waters of the U.S., including wetlands, should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Compensation for any remaining adverse impacts should occur through restoration, enhancement, creation, and/or preservation. BMPs should be used to control erosion and to protect water quality. Construction activities should be conducted during a period of low flow. All disturbed areas must be seeded with native grasses, and appropriate erosion control measures must be implemented. Clearing of vegetation should be limited to that which is absolutely necessary for construction of the Project.

Two former gas station sites, both in Keystone, Iowa, may raise concerns:

1. There may be residual contamination in the soil at the site located at 7285 14th Avenue and 73rd Street [FG-12-20]. If contaminated soil is discovered during Project construction, it would need to be taken to the local county landfill; the soil may not be used for backfill.
2. The site located at US 30 and 16th Avenue [FG-12-42] currently has a "low risk" status; however, contamination from either gasoline or diesel fuel may still be present in the soils. It is highly suggested that Iowa DNR be contacted in the event that contaminated soil is discovered at this site.

- NRCS: Prime farmland conversions associated with the Project should be taken into account. Any impacts on or conversions of prime farmland should be documented on Form AD-1006. If the Project would impact agricultural wetlands through actions such as filling and clearing woody vegetation or increasing drainage, the location of such impacts should be located.
- Iowa Tribe of Kansas and Nebraska: The tribe has no objections to the Project if cleared with Iowa SHPO. However, if human skeletal remains and/or any objects falling under the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.) are uncovered during Project construction, it is necessary to stop immediately and contact the proper NAGPRA representative.
- USACE – Rock Island District: Any proposed placement of dredged or fill material into waters of the U.S., including wetlands, requires a Department of the Army authorization under Section 404 of the Clean Water Act. Based on the information provided, a Section 404 permit may be required for the Project. A complete application packet, which includes measures to avoid, minimize, and mitigate for impacts, should be submitted promptly to the Rock Island District for processing.

  It is necessary to coordinate with the State Historical Society of Iowa to determine potential impacts on historic properties; to coordinate with the USFWS Rock Island Field Office concerning potential impacts on Federally listed species; and to contact the Iowa Emergency Management Division to determine whether the Project would impact areas designated as floodway.

Iowa DOT coordinated with Iowa DNR on the potential for rose blackberry in the Study Area, and determined that for this Project there was no concern about impacts to the flower.

7.2 NEPA/404 Merge Consultation

As part of Iowa DOT's NEPA/404 Merge Process, selected resource agencies were asked to participate in addressing concurrence point 1 (purpose and need) and concurrence point 2 (alternatives to be considered). For this Project, Iowa DOT proposed and the resource agencies agreed on the use of a streamlined process whereby concurrence point packages would be provided electronically, and agencies would respond back with comments and concurrence electronically. Through subsequent correspondence, Iowa DNR, EPA, USACE, and USFWS concurred with the proposed purpose of and need for the Project and the range of alternatives considered; concurrence was concluded on January 4, 2011. In addition, on

February 28, 2011, information was sent to the agencies regarding concurrence point 3 (alternatives to be carried forward); all resource agencies concurred on Iowa DOT's approach as of March 22, 2011. Concurrence point 4 (preferred alternative) is expected to be reviewed in fall 2012.

7.3 Public Involvement

A public involvement program was conducted during Project development to effectively engage the general public and interested parties in the Project. The key components of this program are outlined in the following sections.

7.3.1 Public Meetings

A pubic information meeting (PIM) was held at the Belle Plaine High School from 4:30 to 6:30 P.M. on April 20, 2010, to inform the public that environmental field reviews along US 30 in both Benton and Tama counties had been initiated and that the planning study for the Project was being restarted. (As indicated in Section 2 of this EA, initial planning studies for this Project started in the mid-1990s.) The meeting was attended by 75 people. The general input at the meeting was positive, with many attendees wanting the Project to start as soon as possible. Several attendees were interested in the timing of the US 30 projects in Benton and Tama counties and when ROW acquisition would occur for those projects. The public was interested in what environmental field studies would be conducted, on which side of the highway the new lanes would be built, and how much impact the construction would have on adjacent properties. For a few property owners, a concern was access control and whether it would affect their entrances and side roads. Elected officials and their representatives were favorable towards the Project because of potential future benefits to the counties and incorporated towns.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- A property on both sides of the highway is currently involved in an estate disbursement process, and the estate executor was interested in the acquisition process. – *Response: Acquisition for the Project would not likely occur until after the estate has been disbursed.*
- A landowner asked whether their residence might be acquired. – *Response: The US 30 projects are in the planning stages of identification of potential alternatives. Other meetings will be held to display the preferred alternative to the public. At that time, additional information will be presented regarding whether particular residences would need to be acquired.*
- The Benton County engineer noted that he had been told of a pioneer cemetery on the south side of US 30 on top of a hill between 17th Drive and the creek to the east. – *Response: The cemetery was located and is outside the Project's Study Area and would not be affected.*

A second PIM was held at the Blairstown Community Center from 4:30 to 6:30 P.M. on October 6, 2010, with 43 public attendees. The purpose of the meeting was to provide the opportunity for the public to review and comment on the range of alternatives for the expansion of US 30 from two lanes to four lanes, including possible interchanges at IA 21 and US 218, and to gather feedback on the Project's purpose and need statement. The majority of the comments generally focused on support for the Project and on getting it built as quickly as possible. Attendees noted safety concerns with the existing two-lane facility and the number of accidents occurring. Other comments included how access to properties would be maintained and amount of farmland impacts because of the proposed interchanges.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- The proposed interchanges are expensive to build, would affect too much agricultural land, and are not needed. Money could be better spent paving gravel roads in Benton County. – *Response: Interchanges are typically considered for expressways on all state-highway-to-state-highway crossings. The interchanges are still under review for the Project and will be analyzed further as the Project moves forward.*
- The Van Horne/Blairstown intersection at 21st Avenue and US 30 and the Keystone intersection at 15th Avenue have more accidents and problems than either the US 219 or IA 21 interchanges. – *Response: All intersections throughout the Project will be considered and analyzed to determine whether turn lanes are needed.*
- Although the US 30 roadway needs to be replaced, the existing roadbed should be reused as much as possible because it has been tiled and the drainage is good. Land with a high CSR value should be avoided from use for borrow for the Project. Although more expensive because of transportation costs, use of borrow from land with lower CSR values is recommended to preserve prime farmland. – *Response: The existing pavement needs to be replaced due to the age and condition of the pavement. In each of the alternatives, the existing roadbed will be part of the new cross section but may not be used as new lanes of pavement. Although the new roadbed may not exactly align with the existing roadbed, the intent is to stay generally along the existing alignment and minimize the amount of land needed while meeting current design standards. Multiple borrow sites are considered in the Project development, and as the borrow needs/amounts are quantified, borrow location to be used for the Project will be identified.*
- The options proposed for the US 30/US 218 interchange would result in out of distance travel compared to the current intersection. The proposed gravel road shown on the plans is not needed because there is a current gravel road already in that area. Should have the connection to the south of US 30 be brought back to 24th Avenue as quickly as possible. – *Response: Due to the constraints of the cemetery and the historic Youngville Café, the current interchange options have been shifted away from the existing intersection. Since the October 2010 PIM, the connection on the south of US 30 has been modified to reduce the farm ground impacts and is proposed*

to be tied into 24th Avenue as quickly as possible. The Project team will continue to review and consider different interchange options at this location.

- There is concern with safety of the loop ramps on two of the alternative configurations of the proposed US 30/US 218 interchange. – *Response: Loop ramps are a viable option for an interchange if there are restrictions in the area that need to be avoided. The loop ramps, if used, would be designed using current design standards, and it is not anticipated there would be any safety concerns.*

A third PIM was held at Keystone Turner Hall from 7:00 P.M. to 9:00 P.M. on June 29, 2011, with 151 public attendees. The purpose of the meeting was to provide the opportunity for the public to review and comment on the range of alternatives for the expansion of US 30 from two lanes to four lanes, including possible interchanges at IA 21 and US 218. The meeting was held to allow opportunity for comment on the proposed alternatives and to provide staff an opportunity to more fully explain the scope of the Project. A formal presentation was given with a question/answer session that followed. The majority of the comments generally focused on the location of the two additional lanes that are proposed to be added to the existing roadway. Other comments included concern over how access to properties would be maintained, concern over farmland impacts, and concern over the method of the ROW acquisition process.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- There is concern that the existing road/roadbed will not be used for the new roadway alignment. – *Response: For all of the alternatives under consideration, the existing roadbed will be used as part of the new cross section to the extent practicable; however, it may not be present at all locations proposed for newly constructed lanes. The existing pavement is in poor condition and needs to be replaced. The existing roadway also needs to have adjustments made to the profile of the roadway in order to meet current design standards and to improve safety of the roadway by providing improved visibility at the side roads and driveways.*

- There is concern that the interchange options at US 218 will take too much farm ground, and there were many questions regarding the need for the interchange. – *Response: Iowa DOT policy is to consider interchanges for expressways at all state-highway-to-state-highway intersections. Due to the constraints at the existing intersection, the options presented do have a higher impact on the farm ground in the area. The Project team will continue to consider other options at this location.*

- Concern over the amount of ROW needed for the entire length of the Project, as well as concern over the timing and process for the purchase of ROW were expressed. – *Response: The ROW process was explained, and it was stated that the 2012-2015 Iowa Statewide Transportation Improvement Program and the 2012 – 2016 Iowa Transportation Improvement Program have funds programmed for the purchase of ROW starting in 2014. The comparison of ROW impacts for all of the alternatives is*

very similar. The Project team will work to minimize the impacts as the Project moves through the development process.

- Many residents were concerned with how access would be provided to their properties. – *Response: Access to the properties is being developed and will be presented at a future public meeting.*

A fourth PIM was held at Blairstown Community Center from 4:30 P.M. to 6:30 P.M. on September 14, 2011, with 100 public attendees. The purpose of the meeting was to provide an update on the development of the Project since the PIM held on June 29, 2011. A decision was made by Iowa DOT to drop Alternative 2 from further consideration. Alternatives 1 and 3 were presented to the public as well as the interchange options for both IA 21 and US 218. Access control for the Project was also presented. The meeting was held to allow opportunity for additional comment on the proposed alternatives and to provide staff an opportunity to more fully explain the adjustments made since the last meeting. The majority of the comments generally focused on an understanding of the need for the Project and expressed a desire to minimize farm ground impacts as much as possible. Other comments included concern over how the ROW process worked, concern over the interchanges and the amount of land they would take, and questions regarding the access points shown. Based on a review of the alternatives, the public preferred Alternative 3 because the impacts would be spread among more landowners to a lesser extent per landowner than the other alternatives being considered.

The following is a summary of public comments received, with the response to each comment in italics following the comment:

- There were many questions about the ROW process, how long it would take, and what options residents would have if both alternatives showed their homes being taken. – *Response: The ROW process was explained, and it was stated that the 2012-2015 Iowa Statewide Transportation Improvement Program and the 2012 – 2016 Iowa Transportation Improvement Program have funds programmed for the purchase of ROW starting in 2014. Residents impacted by both alternatives were also given information about the potential for an early acquisition.*

- There is concern over the need for an interchange at US 218 and the impact on properties. – *Response: Alternative 4 was developed due to concerns raised at previous meetings. The new alternative reduces the amount of farm ground impacts while still providing for the interchange.*

- Several questions were raised over the proposed access points shown at the meeting. Some felt the access points should be in different places and/or more access should be provided. – *Response: It was explained that the access points shown were a starting point for how the access control might look for the Project. Revisions will be made as the Project moves through the design phases. However, access will be limited to full access points at intersections and at approximately 0.5-mile spacing. Right*

in/right out access points will be allowed at 0.25-mile spacing between the full access points as needed.

7.3.2 Correspondence

Throughout the course of the Project, correspondence was received from the public through a variety of means, including the PIMs, telephone calls, letters, and email.

7.3.3 Future Public Involvement

A public hearing on the Signature EA is scheduled for July10, 2012

SECTION 8

REFERENCES

SECTION 8
REFERENCES

23 CFR 774 et seq. Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites (Section 4(f)).

40 CFR 1500-1508. CEQ Regulations for Implementing NEPA.

42 FR 26951. May 24, 1977. Executive Order 11988, Floodplain Management.

7 USC 4201(b). Findings, Purpose, and Definitions.

16 USC 3801-3862. Food Security Act of 1985, Subtitle C.

25 USC 3001 et seq. Native American Graves Protection and Repatriation Act (NAGPRA).

33 USC 1251 et seq. Clean Water Act, as amended.

42 USC 4601 et seq. Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Benton County Board of Supervisors. November 30, 1994. Land Preservation and Use Plan for Benton County, Iowa.

Benton County Board of Supervisors. November 1994. Ordinance #24, Benton County, Iowa, Agricultural Land Preservation Ordinance.

Benton County Courthouse. February 2012. Benton County GIS. Retrieved on February 8 through 10, 2012. http://www.cobentoniaus.com/.

Benton County Geographic Information Service (GIS), March 23, 2011. Rights-of-Wayship shapefile. Received from Hayley Rippel, Benton County GIS Coordinator, on March 23, 2011.

Benton County Planning and Zoning. February 14, 2011. Personal communication with Marc Greenlee, Zoning Administrator, regarding zoning, agricultural land preservation, and development in Benton County.

Benton County Planning and Zoning. April 7, 2011. Personal communication with Marc Greenlee, Zoning Administrator, regarding zoning, agricultural land preservation, and water quality issues in Benton County.

Benton County Planning and Zoning. June 7, 2011. Personal communication with Marc Greenlee, Zoning Administrator, regarding zoning and agricultural land preservation issues in Benton County.

Benton County Planning and Zoning. March 15, 2012. Personal communication with Marc Greenlee, Zoning Administrator, regarding any new development in the Study Area.

CEQ. January 1997. Considering Cumulative Effects Under the National Environmental Policy Act. Retrieved on February 18, 2011. http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm.

CEQ. June 24, 2005. Guidance on the Consideration of Past Actions in Cumulative Effects Analysis. Retrieved on February 18, 2011. http://ceq.hss.doe.gov/nepa/regs/Guidance_on_CE.pdf.

Davison, Hugh. 1994. A Phase I Historic Architectural Survey of Primary Roads Project NHS-30-6(62)—19-06, Benton County, Iowa.

ECICOG. June 30, 2011. Final 2012-2015 Transportation Improvement Program. Retrieved on March 13, 2012. http://www.mediafire.com/file/km2wx2amtnt3066/final tip 2012-2015 aug 16.pdf.

EPA. March 15, 2012. Facility Registry System Query. Retrieved on March 15, 2012. http://www.epa.gov/enviro/html/fii/fii_query_java.html

FAA. January 13, 2011. Belle Plaine Municipal Airport, TZT (KTZT) Belle Plaine, IA. Retrieved on January 13, 2011. https://airports-gis.faa.gov/airportsgis/airportLookup/airportDisplay.jsp?category=nasr&airportId=TZT.

FHWA. April 1992. Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process.

FHWA. January 31, 2003. Interim Guidance: Questions and Answers Regarding Indirect and Cumulative Impact Considerations in the NEPA Process.

FHWA. July 6, 2011. Concurrence with *De Minimis* Finding for Kozak and Bullock Properties.

HDR. March 2012. Noise Study Report, Technical Memorandum, US 30 Benton County.

HDR. November 30, 2010. Memorandum regarding site visit for US 30 Benton County Proposed Expansion.

Iowa Administrative Code 567-65.2(8). Minimum Manure Control Requirements and Reporting of Releases. Retrieved on February 23, 2011. http://www.legis.state.ia.us/aspx/ACODocs/ruleList.aspx?pubDate=6-15-2011&agency=567&chapter=65.

Iowa Administrative Code 567-65.101. Minimum Open Feedlot Effluent Control Requirements and Reporting Of Releases. Retrieved on February 23, 2011. http://www.legis.state.ia.us/aspx/ACODocs/ruleList.aspx?pubDate=6-15-2011&agency=567&chapter=65.

Iowa Code 314.23. Environmental Protection. Retrieved on February 25, 2011. http://coolice.legis.state.ia.us/cool-ice/default.asp?category=billinfo&service=iowacode&ga=83&input=314#314.23.

Iowa Code 316. Relocation of Persons Displaced by Highways. Retrieved on February 25, 2011. http://coolice.legis.state.ia.us/cool-ice/default.asp?category=billinfo&service=iowacode&ga=83&input=316.

Iowa Department of Management. n.d. Benton County January 1, 2011 Taxable Valuations for Fiscal Year 2012/2013 Tax Levies. Retrieved on February 28, 2012. https://www.iowaonline.state.ia.us/dompvs/default.aspx?cmd=RptCriteria&selReport=ARTVLA2-CN&selFormat=PDF.

Iowa DNR. February 4, 2011. Watershed Monitoring and Assessment. Accessed March 9, 2012. http://www.igsb.uiowa.edu/wqm/ImpairedWaters/Year2010/ImpairedWaters2010NE.htm.

Iowa DNR. February 22, 2011. Iowa Department of Natural Resources Geological Survey. Retrieved on February 22, 2011. http://www.igsb.uiowa.edu/webapps/geosam/default.asp?state=1.

Iowa DNR. August 5, 2011a. Iowa DNR Facility Explorer. Record for Bullock Standard. Retrieved on March 15, 2012. https://facilityexplorer.iowadnr.gov/facilityexplorer/SiteDetail.aspx?facID=310556122.

Iowa DNR. August 5, 2011b. Iowa DNR Facility Explorer. Record for PEMCO Fast Break. Retrieved on March 15, 2012. https://facilityexplorer.iowadnr.gov/facilityexplorer/SiteDetail.aspx?facID=310556122.

Iowa DNR. Not dated. Iowa DNR Facility Explorer. Search for facilities in Benton and Tama Counties. https://facilityexplorer.iowadnr.gov/facilityexplorer/Default.aspx.

Iowa DNR and Public Safety State Fire Marshal Office. Not dated. Iowa DNR Land Quality Underground Storage Tank Leaking Underground Storage Tank (USTLUST) and Aboveground Storage Tank Database. Retrieved on March 15, 2012. https://programs.iowadnr.gov/tanks/pages/advanced.aspx.

Iowa DOT. August 2009. Office of Location and Environment Manual. Retrieved on February 15, 2011. http://www.iowadot.gov/ole/olemanual.html.

Iowa DOT. June 29, 2010. 2005-2009 Statewide Intersection Safety Improvement Candidate Location (SICL) List. Retrieved on January 6, 2011. http://www.iowadot.gov/crashanalysis/pdfs/compositerank_06292010_top200.pdf

Iowa DOT. Not dated. Entrance Policy/Utility Policy: Access Management. Retrieved on March 19, 2012. http://www.iowadot.gov/traffic/sections/itsauwz/accessmanagement.aspx.

Iowa DOT. September 20, 2010. Effect determination of no effect on archaeological sites as historic properties.

Iowa DOT. June 14, 2011. 2012 – 2016 Iowa Transportation Improvement Program. Retrieved March 13, 2012. http://www.iowadot.gov/program_management/five_year.htmlIowa DOT. September 30, 2011. Statewide Transportation Improvement Program 2012-2015. Retrieved on March 14, 2012. http://www.iowadot.gov/program_management/2012_2015_FINAL_STIP_9.30.2011.pdf.

Iowa DOT. June 16, 2011. Effect determination of no adverse effect on historic properties with concurrence from the Iowa SHPO on June 21, 2011.

Iowa DOT. April 19, 2012. Effect determination of no historic properties affected with concurrence from the Iowa SHPO on April 24, 2012.

Iowa DOT. April 19, 2012. Effect determination of no adverse effect on historic properties with concurrence from the Iowa SHPO on April 24, 2012.

Iowa State University, University Extension. June 2010. Ag Decision Maker: Understanding Iowa Corn Suitability Ratings (CSR). Retrieved on March 24, 2011. http://www.extension.iastate.edu/agdm/wholefarm/html/c2-86.html.

Montgomery Watson. May 2001. Phase I Environmental Site Re-Assessment. Iowa Department of Transportation Proposed Construction Corridor for U.S. Highway 30 Tama and Benton Counties.

Morrow, Julie. 1994. Phase I Archaeological Survey of Primary Roads Project NHS-30-6(62)--19-06, A.K.A. PIN 92-06040-1 Benton County, Project Completion Report 17(6). Office of the State Archaeologist, University of Iowa, Iowa City, IA.

National Association of Realtors. February 17, 2011. Farms and Homes for Sale in the Vicinity of Belle Plaine, Iowa. Retrieved on February 17, 2011. http://www.realtor.com/realestateandhomes-search/Belle Plaine_IA.

PHMSA. March 14, 2012. Incident Reports Database Search. Retrieved on March 15, 2012. https://hazmatonline.phmsa.dot.gov/IncidentReportsSearch/Search.aspx.

Tama County Assessor. February 2012. Parcel Search. Retrieved on February 27, 2012. http://tama.iowaassessors.com/.

Tama County Board of Supervisors. July 7, 1998. Tama County Zoning Ordinance of 1998. Retrieved on June 7, 2011.

http://www.tamacounty.org/Documents/auditor/2005CodeofOrdinances/ORDINANCE%20VI.1Zoning%20Ordinance%20of%201998.htm.

Tama County Planning and Zoning. June 21, 2011. Personal communication with Bill Christensen, Zoning Administrator, regarding zoning, agricultural land preservation, and development in Tama County.

Transportation Research Board. No date. Change in Accident Rates. Retrieved June 4, 2012. http://bca.transportationeconomics.org/benefits/safety/change-in-accident-rates.

USACE. January 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1. Environmental Laboratory, USACE, Vicksburg, Mississippi.

USACE. August 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region: Version 2.0. ERDC/EL TR-10-16. Environmental Laboratory, USACE, Vicksburg, Mississippi.

USDA NRCS. April 6, 2006. Soil Survey (SSURGO) Geographic Database, with attached Iowa Soil Properties And Interpretations Database, of Benton County, Iowa. Retrieved on February 11, 2011. http://soildatamart.nrcs.usda.gov/.

U.S. Department of the Interior, NPS. February 9, 2007. Weekly List of Actions Taken on Properties: 1/29/07 through 2/02/07. Retrieved on January 10, 2011. http://www.nps.gov/nr/listings/20070209.HTM.

Wapsi Valley. January 2011. Phase I Intensive Archaeological Survey for Proposed U.S. Highway 218 Interchange, Three Borrow Areas, and Associated Side Road Relocations along U.S. Highway 30 in Benton County, Iowa, Project No. NHS-30-6(87)—19-06.

Wapsi Valley. April 2012. Additional Cultural Resources Investigations for the U.S. Highway 30 and U.S. Highway 218 Intersection Improvement Project, Benton County, Iowa (NHS-30-6(87)—19-06).

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APPENDIX A

STREAMLINED RESOURCE SUMMARY

SOCIOECONOMIC IMPACTS SECTION:

Land Use	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Community Cohesion	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Churches and Schools	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Environmental Justice	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Economic	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/11/2010
Joint Development	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 9/28/2010
Parklands and Recreational Areas	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Bicycle and Pedestrian Facilities	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/11/2010
Right-of-Way	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Relocation Potential	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010

SOCIOECONOMIC IMPACTS SECTION Continued:

Construction and Emergency Routes	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Transportation	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010

CULTURAL IMPACTS SECTION:

Historic Sites or Districts	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 11/11/2010
Archaeological Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 11/11/2010
Cemeteries	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/11/2010

NATURAL ENVIRONMENT IMPACTS SECTION:

Wetlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 11/11/2010
Surface Waters and Water Quality	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 11/11/2010
Wild and Scenic Rivers	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Floodplains	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Wildlife and Habitat	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Threatened and Endangered Species	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 11/11/2010
Woodlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	IA DOT NEPA Manager, 11/11/2010
Farmlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010

PHYSICAL IMPACTS SECTION:

Noise	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Air Quality	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
MSATs	
Evaluation:	This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions impacts relative to the no-build alternative. As such, FHWA has determined that this project will generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. Consequently, this effort is exempt from analysis for MSATs. Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in VMT, FHWA predicts MSATs will decline in the range of 57 percent to 87 percent, from 2000 to 2020, based on regulations now in effect. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.
Method of Evaluation:	FHWA Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006
Completed by and Date:	Consultant, 9/28/2010
Energy	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 9/28/2010
Contaminated and Regulated Materials Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 11/11/2010
Visual	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 9/28/2010
Utilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 11/11/2010

APPENDIX B

AGENCY AND TRIBAL COORDINATION

SEP 17 2002

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097
515-239-1726 FAX

Date: September 13, 2002

NHS-30-6(88)- -19-86
NHS-30-6(87)- -19-06
Tama and Benton
Primary

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

R&C: 990300072

Dear Ralph:

RE: Architectural Resource Survey for U.S. Highway 30: Tama Bypass to U.S. 218
Tama and Benton Counties, Iowa

Enclosed for your review is the Phase I Cultural Resource Investigation for the above-mentioned federal funded project. This project purposes the construction of two additional lanes of traffic from the Tama Bypass to U.S. 218. This project has a corridor length of 14.62 miles.

This survey was conducted using an extensive archival / records search, along with field investigations and photographic documentation of each property. During the survey, 50 properties were recorded, most of which were turn-of-century and early twentieth century farmsteads. Two of these properties had been previously recorded, one of which was determined eligible for the National Register, the Zeman Barn.

The Zeman Barn (Property 86-00028) represents a Gothic Roof Barn. The property, located in Section T83-R14W, was determined eligible for the National Register under Criterion C.

During this survey, four properties were recorded and determined eligible for the National Register. These properties are described as follows:

The Seabert House (Property 86-00778) represents an example of Gothic Revival, an uncommon style of rural Iowa Architecture. The property, located at 2254 Highway 30 (Section, 31, T83N-R14W) was determined eligible for the National Register under Criterion C.

The Ledvina Farmstead (Properties 86-00804 to 86-00806) represents an intact farmstead, which demonstrates the practice of stock raising used by farmers in the upland region of Tama County, during the early and middle parts of the 20th Century. The property, located at 2691 Highway E66 (Sec.35, T83N-R14W) was determined eligible for the National Register under Criterion C for its intact example of a 20th Century cattle-raising farmstead.

The Kozik Farmstead (Properties 06-00605 to 06-00608) represents an intact farmstead that demonstrates the farming practice of mixed livestock raising, both cattle and swine, in Tama County in the early parts of the 20th century. The property, located at 1046 U.S. Highway 30 (Sec.31, T83N-R12W), was determined eligible for the National Register under Criterion C.

The Bullock Gas Station (Property 06-00611) represents a "house with canopy" type gas station and has an association with the development of an automotive service industry along national routes like the Lincoln Highway. The property, located at 1395 Highway 30 (Sec.27, T83N-R12W) was determined eligible for the National Register under Criterion A and Criterion C.

All five of these properties were recommended for avoidance or mitigation. It you concur with the findings of this survey, please sign the concurrence line below, return this letter and add any comments you might have.

Sincerely,

Matthew J. Donovan

Matt Donovan
Office of Environmental Services
Matt.Donovan@dot.state.ia.us

MJFD
Enclosure

cc: Scott Dockstader- District 1
Keith A. Cadwell- Design
Sharon J. Dumdei- Right of Way
Randy Withrow- Louis Berger Group Inc.

Concur _____ Date 10/17/02
SHPO Historian

Comments:

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
RICHARD A. LEOPOLD, DIRECTOR

RECEIVED
AUG 24 2010
OFFICE OF LOCATION & ENVIRONMENT

August 19, 2010

Jorge Zamora
Iowa Department of Transportation
NEPA Document Manager
800 Lincoln Way
Ames, IA 50010

RE: U.S. Highway 30, Benton County – Environmental Assessment, NHS-030-6(87)-19-06

Dear Mr. Zamora,

Thank you for the early coordination letter on the highway improvement to U.S. Hwy 30 through Benton County.

After review of the Land and Water Conservation Fund (LWCF) recreational projects located along the corridor, I have that no federal projects are near the study area.

If you have any questions, please do not hesitate to contact me at 515-281-3013. Or by email at kathleen.moench@dnr.state.ia.us.

Sincerely,

Kathleen Moench

Kathleen Moench
LWCF Federal Aid Coordinator

Iowa Tribe of Kansas and Nebraska

3345 B Thrasher Road
White Cloud, Kansas 66094
(785) 595-3258 or (785) 595-3259
Fax (785) 595-6610

RECEIVED
AUG 2 7 2010
OFFICE OF LOCATION & ENVIRONMENT

August 19, 2010

Matt Donovan
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Thank you for your correspondence dated August 4, 2010, concerning the following project:

RE: US Highway 30 Reconstruction, Benton County, Iowa

The Iowa Tribe of Kansas and Nebraska has:

___ No interest in the area geographically

___ No comment on the proposed undertaking

_X_ No objections to the project as proposed if cleared through the SHPO. However, if human skeletal remains and/or any objects falling under NAGPRA are uncovered during construction, please stop immediately and notify the proper NAGPRA Representative.

___ An objection requires additional project information. Please send the following:

Sincerely,

Alan Kelley, Vice Chairman
Iowa Tribe Executive Committee

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

RECEIVED

AUG 2 6 2010

OFFICE OF LOCATION & ENVIRONMENT

August 23, 2010

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Jorge Zamora:

This letter is to acknowledge receipt of your August 10, 2010, correspondence relative to proposed plans for US 30, Benton County.
We have not given this proposal thorough review, but do acknowledge having received materials and being given the opportunity to review and comment if we so choose. This acknowledgment is not an indication of approval on our part.

If you have not already done so, I suggest that a copy of your proposal also be mailed to:

Benton SWCD
1705 West D St.
Vinton, IA 52349-2505

We appreciate the consideration you have given us in this matter.

Sincerely,

Chuck Gipp, Director
Division of Soil Conservation
Ph: 515-281-5851

CRG:klf

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

September 01, 2010

Planning, Programs, and
Project Management Division (1145)

Mr. Jorge Zamora
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Zamora:

I received your letter dated August 10, 2010, concerning proposed improvements to US Highway 30, Benton County, Iowa (NHS-030-6(87)--19-06). Rock Island District Corps of Engineers staff reviewed the information you provided and have the following comments:

a. Your proposal does not involve Rock Island District administered land; therefore, no further Rock Island District real estate coordination is necessary.

b. Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. Based on the information you provided, a Section 404 permit may be required for this project. A completed application packet should be submitted to the Rock Island District for processing as soon as possible. The application should include final plans, wetland delineations, details of proposed impacts to wetlands and other waters of the United States, a statement explaining how impacts associated with the proposed activity are to be avoided, a description of planned components that are intended to minimize impacts to wetlands and streams, and a complete wetland/stream mitigation plan. The requirements for a complete mitigation plan are described in the Federal Register (Volume 73, No. 70) dated April 10, 2008, under "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule".

c. The Responsible Federal Agency should coordinate with Ms. June Strand, Iowa Historic Preservation Agency, ATTN: Review and Compliance Program, State Historical Society of Iowa, 600 East Locust, State Historic Building, 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 (County) Field Office address is: 1511 - 47th Avenue, Moline, Illinois 61265. Mr. Rick Nelson is the Field Supervisor. You can reach him by calling 309/757-5800.

e. The Iowa Emergency Management Division should be contacted to determine if the proposed project may impact areas designated as floodway. Mr. John Wagman is the Iowa State Hazard Mitigation Team Leader. His address is: 7105 NW 70th Ave., Camp Dodge-Bldg. W4, Johnston, Iowa 50131. You can reach him by calling 515/725-3231.

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 Kraetsch of our Environmental and Economics Branch, telephone 309/794-5174.

You may find additional information about the Corps' Rock Island District on our website at http://www.mvr.usace.army.mil . To find out about other Districts within the Corps, you may visit: http://www.usace.army.mil/about/Pages/Locations.aspx.

Sincerely,

Kenneth A. Barr
Chief, Environmental and
Economics Branch

Natural Resources Conservation Service
210 Walnut Street, Room 693
Des Moines, IA 50309-2180

September 1, 2010

Mr. Jorge Zamora
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

RE: U.S. Highway 30, Benton County -- Environmental Assessment

Dear Mr. Zamora:

Thank you for the opportunity to review the above proposed project.

Please take into account prime farmland conversions associated with this undertaking. Document any impacts or conversions of prime farmland on Form AD-1006 (attached). If this project will impact agricultural wetlands through actions such as filling and clearing woody vegetation or increasing drainage, please indicate the location of such impacts.

If you have any further questions please contact John Myers, State Resource Conservationist, or Richard Rogers, Archeologist, at (515) 284-4370.

Sincerely,

John Myers
State Resource Conservationist

Attachment (Form AD-1006)

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)* — Date Of Land Evaluation Request

Name Of Project — Federal Agency Involved

Proposed Land Use — County And State

PART II *(To be completed by NRCS)* — Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes No Acres Irrigated Average Farm Size
(If no, the FPPA does not apply - do not complete additional parts of this form)

Major Crop(s) — Farmable Land In Govt. Jurisdiction: Acres ___ % — Amount Of Farmland As Defined in FPPA: Acres ___ %

Name Of Land Evaluation System Used — Name Of Local Site Assessment System — Date Land Evaluation Returned By NRCS

PART III *(To be completed by Federal Agency)*

	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0

PART IV *(To be completed by NRCS)* Land Evaluation Information

A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				

PART V *(To be completed by NRCS)* Land Evaluation Criterion

Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)*

Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b))* — Maximum Points

1. Area In Nonurban Use					
2. Perimeter In Nonurban Use					
3. Percent Of Site Being Farmed					
4. Protection Provided By State And Local Government					
5. Distance From Urban Builtup Area					
6. Distance To Urban Support Services					
7. Size Of Present Farm Unit Compared To Average					
8. Creation Of Nonfarmable Farmland					
9. Availability Of Farm Support Services					
10. On-Farm Investments					
11. Effects Of Conversion On Farm Support Services					
12. Compatibility With Existing Agricultural Use					
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0

PART VII *(To be completed by Federal Agency)*

Relative Value Of Farmland *(from Part V)*	100	0	0	0	0
Total Site Assessment *(from Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected — Date Of Selection — Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection

(See instructions on reverse side)

Form AD-1006 (10-83)

STEPS IN THE PROCESSING THE FARMLAND CONVERSION IMPACT RATING FORM

Step 1 – Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will fill out a complete Parts I and III of the form.

Step 2 – Originator will send copies A, B and C together with maps indicating locations of site(s) to the Natural Resources Conservation Service (NRCS) local field office and retain copy D for their files. (Note: NRCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the NRCS State Conservationist in each state).

Step 3 – NRCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 – In cases where farmland covered by the FPPA will be converted by the proposed project, NRCS field offices will complete Parts II, IV and V of the form.

Step 5 – NRCS will return copy A and B of the form to the Federal agency involved in the project. (Copy A will be retained for NRCS records).

Step 6 – The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 – The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.

2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in § 658.5 (b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: If the Site Assessment maximum is 200 points, and alternative Site "A" is rated 180 points:

Local points assigned Site "A" 180 x 160 = 144 points for Site "A."

Maximum points possible 200

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Fields of Opportunities

STATE OF IOWA

DEPARTMENT OF NATURAL RESOURCES

September 3, 2010

Jorge Zamora
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Zamora:

This letter is in response to the August 10th request concerning the US 30 Benton County project. After a cursory review by our program staff, we have the following comments. You are welcome to visit our offices and conduct a more thorough review of our records.

Waters of the United States (includes wetlands) should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Any remaining adverse impacts should be compensated for through restoration, enhancement, creation and/or preservation activities.

We would ask that Best Management Practices be used to control erosion and protect water quality near the project. You are encouraged to conduct your construction activities during a period of low flow. You are required to seed all disturbed areas with native grasses and to implement appropriate erosion control measures to insure that sediments are not introduced into waters of the United States during construction of this project. Clearing of vegetation, including trees located in or immediately adjacent to waters of the state, should be limited to that which is absolutely necessary for construction of the project.

Contaminated Sites

After reviewing the records for the Contaminated Sites Section, no contaminated sites were found in the project area.

Sincerely,

Christine Spackman
Business Assistance Coordinator

Attachment

502 EAST 9th STREET / DES MOINES, IOWA 50319-0034
PHONE 515-281-5918 FAX 515-281-6794 www.iowadnr.gov

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Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
PATRICIA L. BODDY, INTERIM DIRECTOR

September 14, 2010

Jorge Zamora
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50319

RE: Environmental Review for Natural Resources
U.S. Highway 30 – Environmental Assessment
Benton County
NHS-030-6(87)-19-06

Dear Mr. Zamora:

Thank you for inviting Department comment on the impact of this project. This letter is a record of review for protected species, rare natural communities, state lands and waters in the project area, including review by personnel representing state parks, preserves, recreation areas, fisheries and wildlife.

No land or water under the jurisdiction of the State of Iowa is involved in the project area; therefore, a sovereign lands construction permit pursuant to Chapter 461A of the Iowa Code will not be required for this project. However, before proceeding with the project, you must obtain any other permits from the DNR or state and federal agencies that may be required for this work.

The Department has searched Natural Areas Inventory records for the project area and found records of rose blackberry (*Rubus rosa*), a potentially rare plant species in Iowa. The Department is currently collecting data to facilitate the future review for possible state-listing of this plant species and therefore requests additional coordination with the Department prior to construction.
Department records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

This letter does not include any comment from the Environmental Services Division of this Department. This letter does not constitute a permit. Other permits may be required from the Department or other state or federal agencies before work begins on this project.

Any construction activity that bares the soil of an area greater than or equal to one acre including clearing, grading or excavation may require a storm water discharge permit from the Department. Construction activities may include the temporary or permanent storage of dredge material. For more information regarding this matter, please contact Ruth Rosdail at (515) 281-6782.

The Department administers regulations that pertain to fugitive dust IAW Iowa Administrative Code 567-23.3(2)"c." All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of property during construction, alteration, repairing or

demolishing of buildings, bridges or other vertical structures or haul roads. All questions regarding fugitive dust regulations should be directed to Jim McGraw at (515) 242-5167.

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

Sincerely,

Kelly Poole
Environmental Specialist
Conservation and Recreation Division

FILE COPY - Kelly Poole
Tracking Number - 5P94

CC: Chris Schwake, Iowa DNR

SEP 21 2010

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010-6993 515-239-1795
FAX 239-1726

September 20, 2010

Ref. No. NHS-030-6(88)--19-86
NHS-030-6(87)--19-06
Tama / Benton Counties
Primary Roads

Doug Jones
Review and Compliance
Department of Cultural Affairs
State Historical Society of Iowa
600 East Locust
Des Moines, IA 50319-0290

R&C# 990300072

Dear Doug:

RE: Phase II Investigations for Six Archaeological Sites:
U.S. 30-Tama/Benton / *No Historic Properties Affected*
(13BE134, 13TM401, 13TM403, 13TM411, 13TM419, and 13TM423)

Enclosed for your review and comment is the Phase II archaeological investigations for six archaeological sites located in Tama and Benton Counties, Iowa. These sites were recommended for Phase II investigations in order to determine if these sites contained artifacts or archaeological materials that would yield significant information regarding local or regional history or prehistory.

Five of these sites (13TM401, 13TM403, 13TM411, 13TM419, and 13TM423) were identified as prehistoric scatters or open habitations. Sites 13TM401 and 13TM411 also contain historic components that had previously been determined not eligible for the National Register.

Archaeological site 13BE134 was identified as a late nineteenth to early twentieth century farmstead established by Eleazar W. Stocker, one of the first settlers in Kane Township and a prominent citizen of Benton County.

The Phase II investigations of these six sites, which included geophysical investigations at Site 13BE134, determined that all six of these sites were *not eligible* for the National Register and no further work was recommended for them.

Based on the results of these Phase II investigations, the determination for these six archaeological sites is ***No Historic Properties Affected***. If you concur with this finding, please sign the concurrence line below, add any comments you might have, and return this letter. If you have any questions regarding these Phase II investigations, please don't hesitate to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F.Donovan
Office of Location & Environment
Matt.Donovan@dot.state.ia.us

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newell- NEPA / OLE
Randy Withrow- Louis Berger Group

Concur: Douglas W. Jones 9/23/2010

SHPO archaeologist Date

Fields of Opportunities

STATE OF IOWA

CHESTER J. CULVER, GOVERNOR
PATTY JUDGE, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
PATRICIA L. BODDY, INTERIM DIRECTOR

11/8/10

RECEIVED
NOV 15 2010
OFFICE OF LOCATION & ENVIRONMENT

Jorge Zamora
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Dear Mr. Zamora:

This is in response to your letter requesting the Iowa Department of Natural Resources to be involved in the environmental assessment for the US 30 widening project. Upon further review of the expansion site, there are two locations that may raise concerns.

1. Gas station formerly located at 7285 14th Ave & 73rd St, Keystone, IA: Our records indicate that this station at one point had 4 leaking underground storage tanks. As of September, 1987, these tanks were removed and the surrounding contaminated soil excavated. The site was updated to "No Action Required" status on March 28, 1991. However, there may be residual contamination in the soil at this site. If contaminated soil is discovered during the highway project, it will need to be disposed of properly (i.e. taken to the local county landfill). Contaminated soil may not be used for backfill. For further information on proper disposal of contaminated soil, you may contact Brian Jergenson at our office number of 563-927-2640.

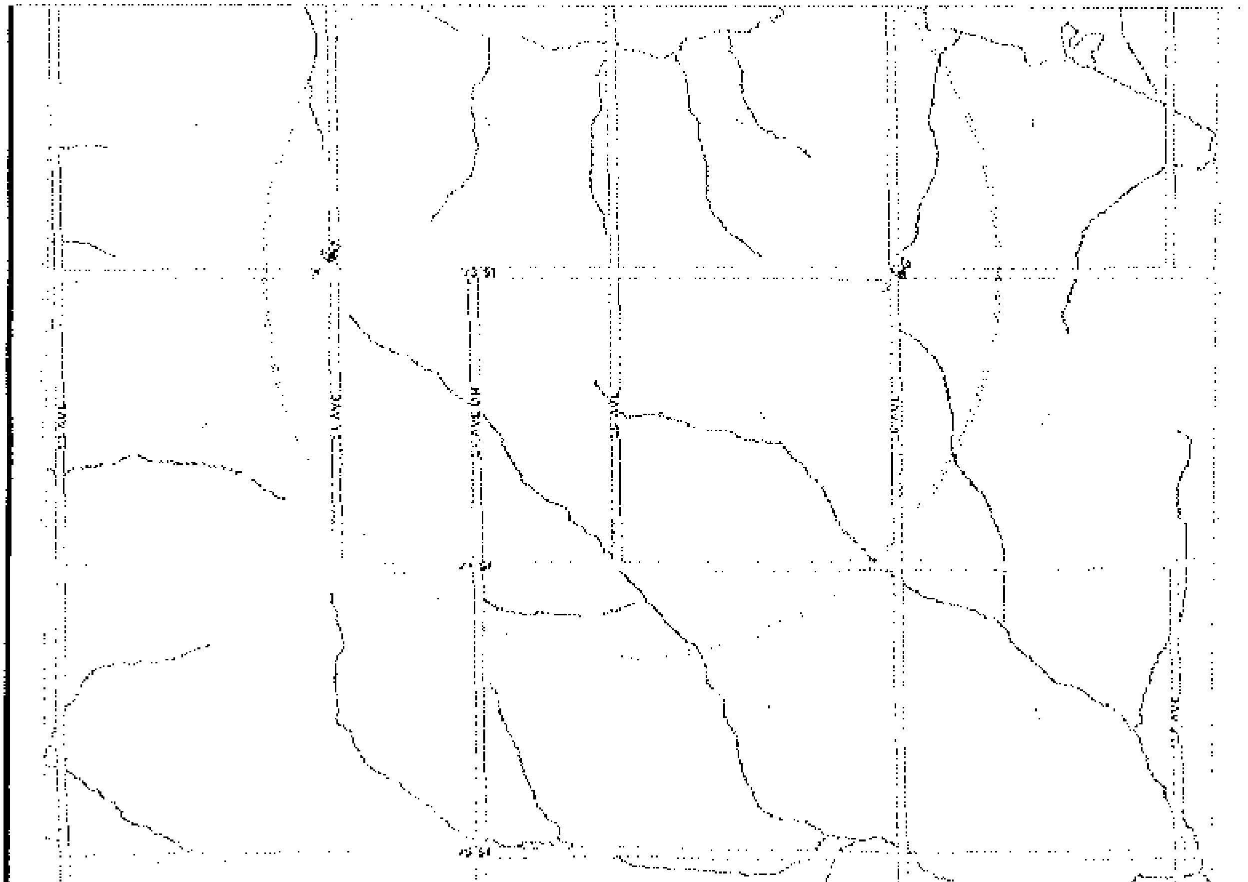
2. Gas station formerly located at US Hwy 30 (and 16th Ave), Keystone, IA: Our records indicate that this staion at one point also had 4 leaking underground storage tanks. As of January, 1992, these tanks were either removed or filled in place. The site's status is currently labeled as "Low Risk". However, contamination from either gasoline or diesel fuel may still be present in the soils. It is highly suggested that in the event that contaminated soil is discovered at this site, you contact Ruth Hummel with the Iowa DNR Tanks Section. She may be reached at 515-281-8897 or ruth.hummel@dnr.iowa.gov.

I have enclosed a map pinpointing these areas of interest. If there is anything else that I may assist you with, please contact me at 563-927-2640 or amanda.hostetler@dnr.iowa.gov. Thank you!

Sincerely,

Amanda Hostetler
Environmental Specialist

Field Office 1, 909 West Main Suite 4, Manchester, IA 52057
563-927-2640 FAX 563-927-2075 www.iowadnr.gov



Leak Number	UST Number	Facility Name	Address	Classification Date	LUST Status	Staff
7LTC96	198608679	Bullocks Standard	7105 14TH AVENUE & 73RD STREET Keystone, IA 52249-	3/25/1991	No Action Required	Cardinale
2LTS12	198601350	Femco Fast Break	US HWY 30 Keystone, IA 000000000	10/27/1993	Low Risk	Hummel

MAR 28 2011

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097
515-239-1726 FAX

March 24, 2011

NHS-30-6(88)--19-86
NHS-30-6(87)--19-06
Benton
Primary

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

R&C: 990300073

Dear Ralph:

RE: Supplemental Architectural Resource Survey for U.S. Highway 30 / U.S. Highway 218: Benton County, Iowa.

Enclosed for your review is the Supplemental Intensive Level Architectural History Survey for the above-mentioned federal funded project. This project proposes the development and construction of a proposed interchange at the junction of U.S. 30 and U.S. 218 in Benton County, Iowa. A possible interchange at the junction of Highway 21 and U.S. 30 was also investigated.

This supplemental survey was conducted to examine additional parcel areas and architectural properties not previously recorded. An extensive archival / records search was conducted along with field investigations. During these field investigations, each property was photographed and documented.

The major of existing properties within the project corridor have been previous surveyed and recorded. Those properties not recorded by the original surveys were largely modern and those that were more than fifty years old, did not exhibit any distinct architectural characteristics.

After a review of the current design plans, four recorded properties, previously found eligible for the National Register, where determined to be located within the present project corridor. The current investigation reviewed each of these properties: the Kozik Farmstead, the Bullock Gas Station, the Thorman Property, and the Youngville Café.

The Kozik Farmstead (Properties 06-00605 to 06-00608) recorded in 2000, represents an intact farmstead that demonstrates the farming practice of mixed livestock raising, both cattle and swine, in Tama County in the early parts of the 20th century. The property, located at 1046 U.S. Highway 30 (Sec.31, T83N-R12W), was determined eligible for the National Register under Criterion C.

The Bullock Gas Station (Property 06-00611) recorded in 2000, represents a "house with canopy" type gas station and has an association with the development of an automotive service industry along national routes like the Lincoln Highway. The property, located at 1395 Highway 30 (Sec.27, T83N-R12W) was determined eligible for the National Register under Criterion A and Criterion C.

The Thorman Property (Property 06-00546) represents a historic farmstead that was previously recorded in 1994. Since being recorded, this farmstead has been demolished and the remaining historic scatter has been recorded as archaeological site 13BE209. (This site was determined not eligible for the National Register and no further work was recommended for it.)

The Youngville Café (Site 06-00544) represents a historic dinner / restaurant. The café was listed on the National Register of Historic Places in 2007.

At the present time, final design plans are being developed for this project. Once these plans are completed, a finding of effect will be forwarded to you regarding any impacts to the three remaining eligible properties within the project corridor.

If you concur with the findings of this investigation, please sign the concurrence line below and return this letter. If you have any questions regarding this supplemental survey or this project, please feel free to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan
Office of Location and Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure

cc: Scott Dockstader- District 1
Dee Ann Newell- NEPA / OLE
Kristy Medanic- Principal Investigator / Waspi Valley Archaeology

Concur _____ Date 3/21/11
SHPO Historian

Comments:

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097
515-239-1726 FAX

March 24, 2011

NHS-30-6(88)--19-86
NHS-30-6(87)--19-06
Benton
Primary

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

R&C: 990300073

Dear Doug:

RE: Supplemental Phase I Archaeological Survey for U.S. Highway 30 / U.S. Highway 218: Benton County, Iowa.

Enclosed for your review is the Supplemental Archaeological Investigation for the above-mentioned federal funded project. This project proposes the development and construction of a proposed interchange at the junction of U.S. 30 and U.S. 218 in Benton County, Iowa. A possible interchange at the junction of Highway 21 and U.S. 30 was also investigated, along with three proposed borrow areas.

This supplemental archaeological investigation was conducted to examine additional parcel areas not previously recorded. An extensive archival / records search was conducted along with field investigations. Subsurface testing was also conducted using soil probes and auger testing.

The present investigation identified 20 archaeological sites. Of these sites, only two are considered potentially eligible for the National Register of Historic Places, 13BE208 and 13BE214.

Archaeological Site 13BE208 represents the remains of a late 19th century farmstead. The farmstead represents one of the pioneering farmsteads in the Benton County area. Due to this and the possibility of preserved archaeological deposits associated with the mid-19th century settlement of the area, this site was determined potentially eligible for the National Register under Criterion D. This site was recommended for avoidance or further study.

Archaeological Site 13BE214 represents the remains of late 19th / early 20th Century farmstead. Because of the potential intact archaeological deposits associated with the early settlement of Benton County, this site was found potentially eligible for the National Register under Criteria D. Further investigations or avoidance is recommended for 13DB214.

At the present time, final design plans are being developed for this project. Once these plans are completed, a finding of effect will be forwarded to you regarding any impacts to the two archaeological sites recommended for further investigation.

If you concur with the findings of this archaeological investigation, please sign the concurrence line below and return this letter. If you have any questions regarding this supplemental survey or this project, please feel free to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan
Office of Location and Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure

cc: Scott Dockstader- District 1
Dee Ann Newell- NEPA / OLE
Mike Finn- Principal Investigator / Waspi Valley Archaeology

Concur Douglas W. Jones Date 4/26/2011
SHPO Archaeologist

Comments:

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1097
515-239-1726 FAX

June 16, 2011

NHS-30-6(88)--19-86
NHS-30-6(87)--19-06
Benton / Tama
Primary

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

R&C: 990300073

Dear Ralph:

RE: Determination of *No Adverse Effect* for the Kozik Farmstead And the Bullock Gas Station- U.S. Highway 30 / U.S. Highway 218- Benton / Tama County, Iowa.

Enclosed for your review are the design plan sections for the above mentioned federal funded project. As previously mentioned, this project proposes the development a series of road improvements along the U.S. 30 corridor in Benton County, Iowa.

After a review of proposed design plans and the identified historic properties located along the project corridor, two properties were examined for possible impacts caused by the propose road improvements. These two properties are the Kozik Farmstead (Properties 06-00605 to 06-00608) and the Bullock Gas Station. (Property 06-00611)

As previously reported, The Kozik Farmstead (Properties 06-00605 to 06-00608) was recorded in 2000 was determined eligible for the National Register under Criterion C. The propose road improvements would close the entrance to the farmstead off of U.S. 30, however a new entrance / lane would be constructed from a side road directly east of the present farm lane and the entrance to the farmstead, facing north, would remain the same.

The Bullock Gas Station (Property 06-00611) recorded in 2000, was determined eligible for the National Register under Criterion A and Criterion C. The proposed road improvements will require the closing the station's entrance to U.S. 30. A new entrance would be constructed to the Bullock Station off of 14th Avenue, directly east of the property.

Based on a review of the properties and the available design plans, the determination for these two properties is ***No Adverse Effect***. Please also note, that the NEPA determination for this project is a *de-minimis* impact

If you concur with this determination for these historic properties, please sign the concurrence line below and return this letter. If you have any questions regarding this determination or this project, please feel free to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan, RPA
Office of Location and Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure

cc: Scott Dockstader- District 1
Dee Ann Newell- NEPA / OLE
Kristy Medanic- Principal Investigator / Waspi Valley Archaeology

Concur _____ Date June 21, 2011
SHPO Historian

Comments:

APR 2 0 2012

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010
515-239-1097
FAX 515-239-1726

April 19, 2012

Ref. No NHS-030-6(87)- -19-06
Benton County
Primary Road

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

R&C# 990300073

Dear Doug:

RE: Supplemental Phase I Cultural Resources Investigation for Three Parcels for U.S. 30 / 218- Benton County
Sections 28, Section 33, Section 27, and Section 34, T83N-R10W

Enclosed for your review and comment is the supplemental Phase I archaeological report for the above-mentioned federal-funded project. This supplemental archaeology was conducted to investigate additional project areas outside of the original study limits for the U.S. 30 / 218 interchange project in Benton County.

The area of potential impact encompassed three additional parcels areas, measuring 190 total acres, of which 73.3 acres was not previously surveyed.

The archaeological investigations for these segments were conducted using extensive archival / records searches along pedestrian surveys of the project areas. Subsurface testing was conducted using auger testing. During this survey, one previously unrecorded historic archaeological site was identified, Site 13BE223.

Site 13BE223 was identified as a historic scatter, which has been heavily impacted by agricultural activites. Due to this, Site 13BE223 was determined to be not eligible for the National Register and no further work was recommended for it.

One historic property was documented by this investigation, the Michael Wheeler Farmstead (Site No. 06-00996) Access to this property as denied by the property owner. Due to this, the Wheeler Farmstead was documented using archival information along with photographs taken from the public right of way. Based on this information, the farmstead / property was determined not eligible for the National Register. Please note that property will not be impacted by this project and will remain outside of the project design corridor.

Based on the findings of this investigation, the determination for the sites and properties identified and recorded by this investigation is No Historic Properties Affected. If you have any questions, please do not hesitate to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE
Mike Finn, Principal Investigator / Waspi Valley Archaeology

Concur:

Douglas W. Jones 4/24/2012

SHPO Archaeologist Date

Wash J. Cole 4/24/12

SHPO Historian Date

Comments:

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010
515-239-1097
FAX 515-239-1726

April 19, 2012

Ref. No NHS-030-6(87)- -19-06
Benton County
Primary Road

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

R&C# 990300073

Dear Ralph:

RE: Proposed Entrance / Access Change- Youngsville Café- Benton County, Iowa
Section 28, T83N-R10W (Site Inventory No. 06-00544)
Finding of No Adverse Effect

Enclosed for your review and comment are the design plans regarding the Youngsville Café. This historic structure is located along U.S. 30 and near U.S. 218 in Benton County.

The Youngsville Café (06-00544) was listed on the list on NHRP in 2007, under Criteria A and C. First found ineligible for the National Register, this structure was re-evaluated in 1994. This re-evaluation determined that the structure represented an example of technological and cultural evolution of the modern highway system and roadside landscaping. The structure retains a high degree of significance and integrity.

A review of the proposed U.S. 30 improvements and the proposed U.S. 30 / U.S. 218 interchange project showed various safety concerns regarding the Youngsville Café's entrance off west bound U.S. 30. Due to safety concerns regarding the Café's entrance, the Iowa DOT proposes constructing a separate entrance to the café off a rural lane just north of the Café, connecting it to U.S. 218. This new entrance would be constructed as part of the proposed U.S. 30 / U.S. 218 interchange project.

Based on the available information regarding the Café, a review of the proposed design plans, and discussions with the design / project engineers, the creation of a new entrance for the Youngsville Café has been determined to be a ***No Adverse Effect*** to the property.

If you concur with the findings of this determination, regarding the Youngsville Café, please sign the concurrence line below and return this letter. If you have any questions regarding this review or this project, please feel free to contact me.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD
Enclosure
cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE

Concur:

SHPO Historian

May 1, 2012
Date

Comments:

Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010
515-239-1097
FAX 515-239-1726

May 3, 2012

Ref. No NHS-030-6(87)- -19-06
Benton County
Primary Road

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

R&C# 990300073

Dear Doug and Ralph:

RE: NEPA Finding of *De Minimis* for the Benton County-U.S 30 / 218, Benton County, Iowa

This enclosed letter is to inform you and your office that the Iowa DOT's NEPA section has issued a *De Minimis* determination for the above-mentioned federally funded project in Benton County, Iowa.

This NEPA finding encompasses in the finding of *No Adverse Effect* to the historic properties within the project corridor. These properties included the Youngsville Café, the Bullock Gas Station, and Kozik property.

Please note that this NEPA determination has been forwarded to the Federal Highway Administration for their review and information and they have concurred with this determination.

If you have any questions regarding this review or this project, please feel free to contact me.

Sincerely,

Matthew J.F. Donovan, RPA
Office of Location & Environment
Matt.Donovan@dot.iowa.gov

MJFD

cc: Scott Dockstader, District 1
Dee Ann Newel, NEPA / OLE

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APPENDIX C

FARMLAND PROTECTION FORMS

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 4/2/12	4. Sheet 1 of 2
1. Name of Project: US 30 Benton County Proposed Expansion	5. Federal Agency Involved: Federal Highway Administration	
2. Type of Project: Highway expansion	6. County and State: Benton County, IA	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS: 4/5/12	2. Person Completing Form: Robert J. Vobora
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated: 0 / Average Farm Size: 298
5. Major Crop(s): Corn - Soybeans	6. Farmable Land in Government Jurisdiction Acres: 430,332 % 94	7. Amount of Farmland As Defined in FPPA Acres: 430,332 % 94
8. Name Of Land Evaluation System Used: Bentom County, Iowa	9. Name of Local Site Assessment System: None	10. Date Land Evaluation Returned by NRCS: 4/20/12

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	1,069			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	1,069			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	821.3			
B. Total Acres Statewide And Local Important Farmland	245.4			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.25			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	37.2			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	82.6			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	**Maximum Points**				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	20			
5. Size of Present Farm Unit Compared To Average	10	10			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availablility Of Farm Support Services	5	5			
8. On-Farm Investments	20	20			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	100	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	82.6	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	100	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	182.6	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
	1,069		YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 4/2/12	4. Sheet 1 of 2
1. Name of Project: US 30 Benton County Proposed Expansion	5. Federal Agency Involved: Federal Highway Administration	
2. Type of Project: Highway expansion	6. County and State: Tama County, IA	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS: 4/5/12	2. Person Completing Form: Robert J. Vobora
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated: 0 / Average Farm Size: 315
5. Major Crop(s): Corn - Soybeans	6. Farmable Land in Government Jurisdiction Acres: 390914 % 84.5	7. Amount of Farmland As Defined in FPPA Acres: 390914 % 84.5
8. Name Of Land Evaluation System Used: Tama County, IA	9. Name of Local Site Assessment System: None	10. Date Land Evaluation Returned by NRCS: 4/20/12

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____ Corridor A	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	47			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	47			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	46			
B. Total Acres Statewide And Local Important Farmland	0.6			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	27.9			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	88.5			

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15	15			
2. Perimeter in Nonurban Use	10	10			
3. Percent Of Corridor Being Farmed	20	20			
4. Protection Provided By State And Local Government	20	20			
5. Size of Present Farm Unit Compared To Average	10	0			
6. Creation Of Nonfarmable Farmland	25	0			
7. Availablility Of Farm Support Services	5	5			
8. On-Farm Investments	20	5			
9. Effects Of Conversion On Farm Support Services	25	0			
10. Compatibility With Existing Agricultural Use	10	0			
TOTAL CORRIDOR ASSESSMENT POINTS	160	75	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	88.5	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment)	160	75	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	163.5	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used?
	47		YES ☐ NO ☑

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

Clear Form

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points

(2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points

(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points

(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ? (Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points

(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points

(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points

(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points

(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points

(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points