US 151
Springville Interchange
LINN COUNTY, IOWA
NHSX-151-3(131)--3H-57

ENVIRONMENTAL ASSESSMENT

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.

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12/13/18

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 P-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 Low**			
☐ **Section 4(f):** Choose an item. **None**			

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1.0 DESCRIPTION OF THE PROPOSED ACTION

The Iowa Department of Transportation (Iowa DOT) in coordination with the Federal Highway Administration (FHWA) is evaluating potential alternatives for a project that would reconstruct the intersection of U.S. 151 and County Road X-20 (Co Rd X-20) near the City of Springville in Linn County, Iowa. Figure 1 shows the location of the project study area which extends approximately 1 mile east and 1 mile west of the existing intersection along U.S. 151 and from 0.32 mile (1,710 feet) north of the intersection to approximately 0.41 mile (2,190 feet) south of the intersection along Co Rd X-20. The study area also includes a portion of O'Brien Lane to accommodate potential access alternatives. The termini for this study area were established to ensure that at-grade access points in the vicinity of Springville were considered as alternatives were developed.

2.0 PROJECT HISTORY

In 1991, U.S. 151 opened as a 4-lane, partially controlled expressway with a southern bypass of Springville. In 2008, following numerous crashes at the Co Rd X-20 intersection, Iowa DOT proposed to improve the at-grade crossing by constructing a J-turn intersection. This was presented to the Springville City Council at that time. In January 2010, a Public Information Meeting (PIM) was held to present the J-turn to the community, which resulted in little local support. It was during this meeting that citizens pointed out that they believed that different elevations of the existing roadway reduced sight distance at the intersection and this may be the cause of many of the accidents at this location. The public requested other alternatives be explored, including grade separated interchange options.

In October 2010, another PIM was held to present 16 alternatives Iowa DOT had developed. As a result of public input from this meeting, the interchange options were further refined and screened to four reasonable interchange alternatives. These four alternatives were taken through an agency review and concurrence process. As a result of this process, three alternatives were eliminated from further consideration. This document addresses the screening of those alternatives and documents the selection of the Preferred Alternative for this intersection.

3.0 PURPOSE AND NEED FOR ACTION

3.1 Purpose of the Proposed Action

The purpose of the project is to improve the intersection of U.S. 151 and Co Rd X-20 to safely and efficiently accommodate existing and future traffic volumes from approximately 1 mile east of the existing intersection to 1 mile west of the existing intersection along U.S. 151 and from approximately 0.32 mile (1,710 feet) north of the intersection to 0.41 mile (2,190 feet) south of intersection along Co Rd X-20.

3.2 Need for the Proposed Action

The need for the project is supported by the high crash rate, which is exacerbated by the number of conflict points, and increasing traffic volumes on U.S. 151 at this intersection. The supporting information is presented below.

The project is needed to improve safety conditions at the intersection of U.S. 151 and Co Rd X-20 due to existing crash rates. During a study period from January 1, 2012 through December 31, 2016 there were 25 crashes. This equates to a crash rate of 91.3 per 100 million vehicle-miles traveled, which is higher than the statewide average of 76 for rural expressway roadways. In this time period there was one major injury, seven minor injury, four possible injury, and 13 property damage only crashes (Table 3-1). Outside of this time period, there was one fatal crash in 2009.

Table 3-1. Crash Severity by Year on U.S. 151 at Springville, Iowa

	Crash Severity					
	Fatal	Major Injury	Minor Injury	Possible Injury	Property Damage Only (PDO)	Total
2012	0	0	3	0	0	3
2013	0	0	0	2	3	5
2014	0	0	1	0	4	5
2015	0	0	1	0	0	1
2016	0	1	2	2	6	11
Total	0	1	7	4	13	25

Source: Iowa DOT SAVER, October 13, 2017.

The type of crash in over half the incidents was broadside (front to side) and during dry conditions. This type of crash is consistent with drivers trying to cross US 151 and hitting oncoming traffic or being hit by the oncoming traffic. In addition, the major cause cited in Iowa DOT's crash summary was failure to yield right-of-way (FTYROW) either from a stop sign, yield sign or making a left turn. Perceived limited sight distance at the U.S. 151/Co Rd X-20 intersection, as a result of the crossing being on a curve, was mentioned by local citizens of Springville. At-grade intersections have more conflict points than a grade separated interchange and thus these conflict points, located on a curve in the roadway, could be a factor in the number of crashes at this location.

If no improvements to the current intersection occur, the number of crashes would be expected to increase as traffic volumes increase. Although traffic is forecasted to increase, the need for this project is not as a result of traffic issues. U.S. 151 can accommodate the traffic traveling on it for the foreseeable future. Estimates indicate that traffic volumes will increase from 15,750 Average Daily Traffic (ADT) in 2017 to 23,795 ADT by 2043 for this section of roadway. This increase in traffic volume coupled with the fact that 10-12% of the traffic volume is currently made up of trucks and is estimated to be 14% in 2043 will increase the chances for additional safety conflicts at this intersection.

4.0 ALTERNATIVES

This section discusses the alternatives investigated to address the project's purpose and need. A range of alternatives was developed, including various interchange configurations and then a screening process was used to narrow the range of alternatives. The No Build Alternative, alternatives considered but dismissed, and the Preferred Alternative are discussed below.

4.1 No Build Alternative

Under the No Build Alternative, no improvements would be made to the existing roadway. Only maintenance and repairs would be done. The roadway's geometric features and access control would remain the same. The No Build Alternative would not have any direct or indirect impacts to adjacent properties. No additional right-of-way would be acquired, and no modifications would be done to the roadway.

The No Build Alternative would not meet the purpose and need for the project. It would not improve the safety and operations of the U.S. 151 intersection at Springville. Although it does not meet the purpose and need, consideration of a No Build Alternative is required by the Council on Environmental Quality regulations for implementing NEPA (40 CFR 1500-1508), and the No Build Alternative will be carried forward to provide a baseline for comparing the potential impacts of the Preferred Alternative.

4.2 Alternatives Considered but Dismissed

In addition to the No Build Alternative, a range of build alternatives was developed by Iowa DOT to address the transportation safety needs for the U.S. 151/Co. Rd. X-20 intersection. To provide the safest alternative for this intersection, it was determined a grade-separated interchange would be necessary. Each of these alternatives met the purpose and need for the project but were dismissed based on other factors including impacts and costs. Each alternative is described below.

4.2.1 Alternative A

Alternative A is a Partial Cloverleaf Interchange with Co. Rd. X-20 going over U.S. 151 (Figure 2). To construct this alternative, one new bridge would be required for Co. Rd. X-20 and the mainline of U.S. 151 would be lowered. This configuration includes a westbound entrance loop onto U.S. 151 to reduce impacts to the businesses in the northwest quadrant of the interchange. The side roads of O'Brien Lane, Bolton Manor Road, and the unnamed access road to Springville's sewage lagoons would be constructed to complete the roadways to connect. They would be gravel roadways. Currently these roadways are not through-streets but would be graded and paved as needed to complete them.

This alternative was dismissed for several reasons including concerns with work zone safety during construction due to perceived site distance issues, high traffic volumes and speed; it had the most impacts of all of the alternatives to streams (at over 1,600 linear feet); wetlands; woodlands; and farmland; it had the second highest impact on floodplains; and it had a higher construction cost than the Preferred Alternative (Table 4-1). The planning level cost estimate to construct this alternative is $18.4 Million (based on 2018 dollars) which includes an initial estimate of right-of-way costs. However, this cost estimate is not based on final design details and would be expected to change with additional engineering information and details. In addition this alternative includes a loop ramp which is undesirable from an engineering perspective because the curvature of the ramp can create safety and operational issues.

4.2.2 Alternative C

Alternative C is a Partial Cloverleaf Interchange with Co. Rd. X-20 over U.S. 151 (Figure 3). This configuration includes a westbound entrance loop onto U.S. 151 to reduce impacts to the businesses in the northwest quadrant of the interchange. A backage/frontage road is included to provide better access to the businesses located in the northwest quadrant of the interchange and 6th Street would be reconstructed nearly to Fawn Avenue. The side roads of O'Brien Lane, Bolton Manor Road, and the unnamed access road to Springville's sewage lagoons would be completed to connect. They would be gravel roadways. Currently these roadways are not through-streets but would be graded and topped with a granular surface as needed to complete them. In addition, Co. Rd. X-20 would be repaved from U.S. 151 south to Bolton Manor Road.

This alternative was dismissed for several reasons including, concerns with work zone safety during construction due to perceived site distance, traffic volumes and speed; it had more impacts than Alternative B to streams and farmland; contains a loop ramp which is undesirable (as described above under Alternative A); and it had a high construction cost associated with reconstructing U.S. 151 (Table 4-1). The planning level cost estimate to construct this alternative is $19.9 Million (based on 2018 dollars) which includes an initial estimate of right-of-way costs. As stated above for Alternative A, this cost estimate is not based on final design details and would be expected to change with additional engineering information and details.

4.2.3 Alternative D

Alternative D is a Partial Cloverleaf Interchange configuration with U.S. 151 going over Co. Rd. X-20 (Figure 2). This would require a greater amount of mainline reconstruction (than the Preferred Alternative) and two new bridges for U.S. 151. This configuration includes a westbound entrance loop onto U.S. 151, to reduce impacts to the businesses in the northwest quadrant of the interchange. The side roads of O'Brien Lane, Bolton Manor Road, and the unnamed access road to Springville's sewage

lagoons, would be completed to connect. They would be gravel roadways. Currently these roadways are not through-streets but would be graded and topped with a granular surface as needed to complete them. In addition, Co. Rd X-20 would be repaved from US 151 south toward Bolton Manor Rd approximately 0.75 mile.

Alternative D was dismissed because of concerns with work zone safety during construction due to perceived site distance issues, high traffic volumes and speed; contains loop ramps which are undesirable (as described above under Alternative A); it would not provide substantive traffic operation or safety benefits over Alternatives A and C; it would have the highest impacts to floodplains; it would have the second highest impacts on streams, wetlands, woodlands and farmland; and it would have the highest construction costs when compared to other alternatives (Table 4-1). The planning level cost estimate to construct this alternative is $24.9 Million (based on 2018 dollars) which includes an initial estimate of right-of-way costs. As stated above for Alternative A, this cost estimate is not based on final design details and would be expected to change with additional engineering information and details.

4.2.4 Alternative E

Alternative E was developed in response to comments received at a PIM on February 20, 2013. Alternative E is a Partial Cloverleaf with Co. Rd. X-20 going over U.S. 151 (Figure 4). This configuration includes two loops: a westbound entrance loop and an eastbound exit loop. The westbound loop is to reduce impacts to the businesses in the northwest quadrant of the interchange. While the purpose of the eastbound exit loop is to allow enough distance from the interchange to O'Brien Lane so that this at-grade intersection could maintain direct access to U.S. 151.

At this time, impacts with this alternative do not include the improvements of O'Brien Lane, Bolton Manor Road or Co. Rd. X-20. Although this alternative has fewer impacts than others considered, it was dismissed because loop ramps are less desirable from an engineering standpoint than standard entrance/exit ramps (Table 4-1). The planning level cost estimate to construct this alternative is $18.9 Million (based on 2018 dollars) which includes an initial estimate of right-of-way costs. As stated above for Alternative A, this cost estimate is not based on final design details and would be expected to change with additional engineering information and details.

4.3 Preferred Alternative (Alternative B)

The Preferred Alternative (Alternative B) would be a Diamond Interchange with Co. Rd. X-20 going over U.S. 151 (Figure 5). It would require one new bridge to carry traffic on Co. Rd. X-20. The proposed bridge would accommodate three lanes, one lane in each direction and a center turn lane. Entrance and exit ramps would be one lane. O'Brien Lane would be relocated to the west with a short frontage road so that it is directly across from Wendling Road. At-grade access would be allowed at this intersection but as a right-in/right-out only. Left turns into or out of this intersection would not be allowed.

Bolton Manor Road would not be improved as part of this alternative. O'Brien Lane would be extended west as mentioned above as a gravel roadway but would not be extended south to Bolton Manor Road as shown in other alternatives. Co. Rd. X-20 would be reconstructed to the extent needed to go over U.S. 151. It would be paved as it is currently. The planning level cost estimate to construct this alternative is $17.4 Million (based on 2018 dollars) which includes an initial estimate of right-of-way costs but is the lowest cost of the alternatives considered. As stated above for Alternative A, this cost estimate is not based on final design details and would be expected to change with additional engineering information and details.

4.4 Summary of Alternatives

Final selection of an alternative will not occur until FHWA and Iowa DOT evaluate all comments received as a result of their review of this document and the public hearing on the U.S. 151 Springville Interchange project. Following public and agency review of this EA, FHWA and Iowa DOT will

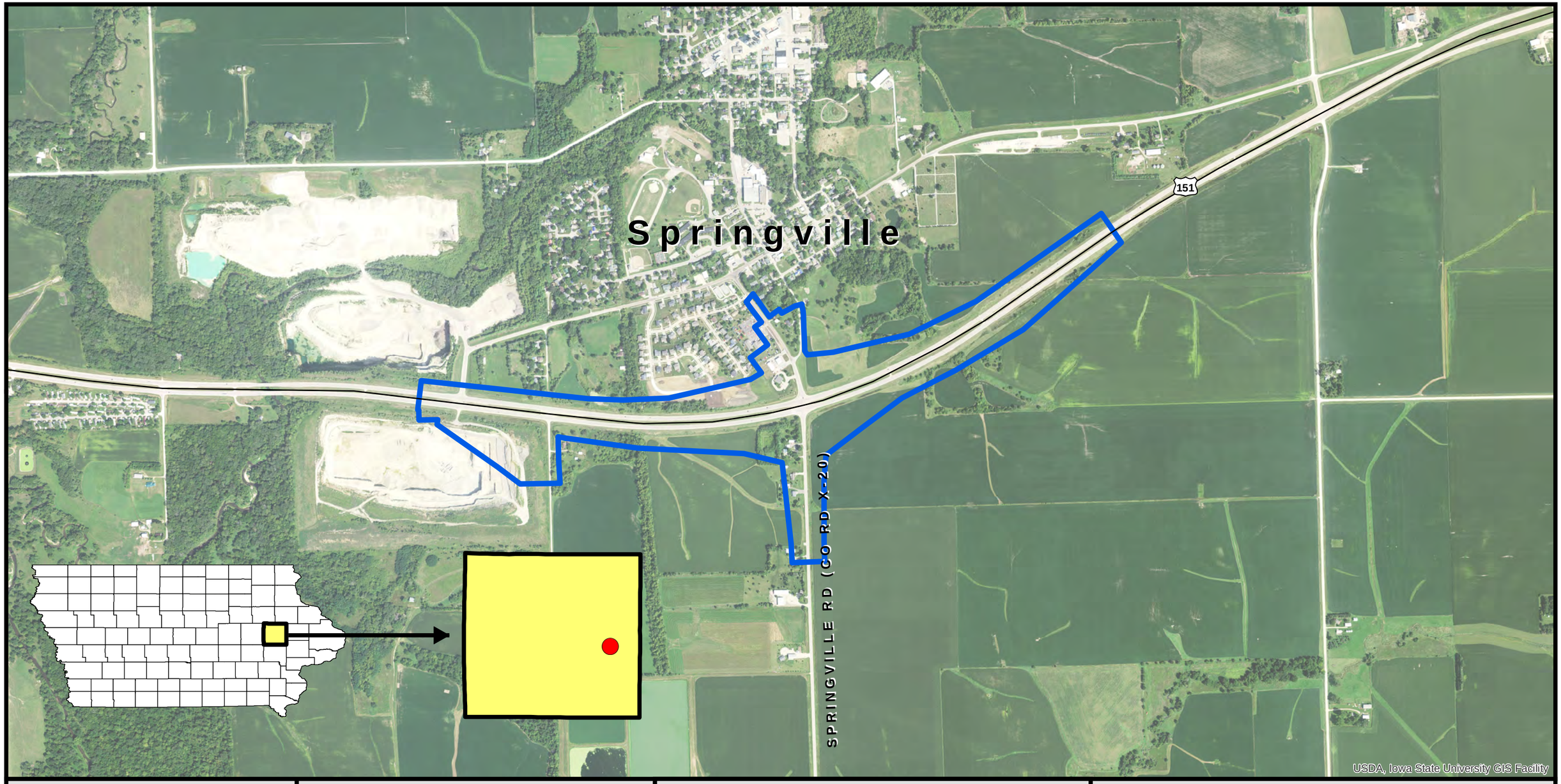
determine if an EIS is required. If one is not required, the selected alternative will be identified in the Finding of No Significant Impact (FONSI) document. If an EIS is required, then a preferred alternative would be selected through that process.

All alternatives considered were shown to the public and key resource agencies (Iowa Department of Natural Resources, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, and the Environmental Protection Agency). The planning level impacts are shown below in Table 4-1.

Table 4-1. Environmental Impacts of Alternatives

Environmental Resource	Alt A	Alt C	Alt D	Alt E	Preferred Alternative (Alternative B)
Total Acres	175.0	176.0	206.0	94.0	127.0
Floodplains (ac)	1.5	0.7	2.6	0.8	0.7
Regulated Materials Parcels (ac)	1 (0.9)	1 (1.0)	1 (0.3)	1 (1.0)	1 (1.0)
Streams (linear feet)	1,269	566	1,138	358	221
Wetlands (ac)	1.0	0.5	0.9	0.3	0.59
Woodlands (ac)	17.2	13.0	16.1	2.0	3.4
Businesses	2	3	3	2	3*
Homes	5	9	4	4	4
Church**	Yes	Yes	Yes	Yes	Yes
Farmland (ac)	97.2	80.0	90.0	46.0	60
Utilities (ac)	0.5[1]; 6.9[2]	1.0[1]; 6.0[2]	0.3[1]; 6.7[2]	1.0[1]	1.0[1]
Cost Estimates, in millions (based on 2018 dollars)[3]	$18.4	$19.9	$24.9	$18.9	$17.4

*One total acquisition and two partial acquisitions; **Portion of parking lot; [1] Drinking water; [2] Sewage lagoon; [3] Includes an estimate of right-of-way costs.



IOWA DOT

N
W E
S

0 0.25 0.5 Miles

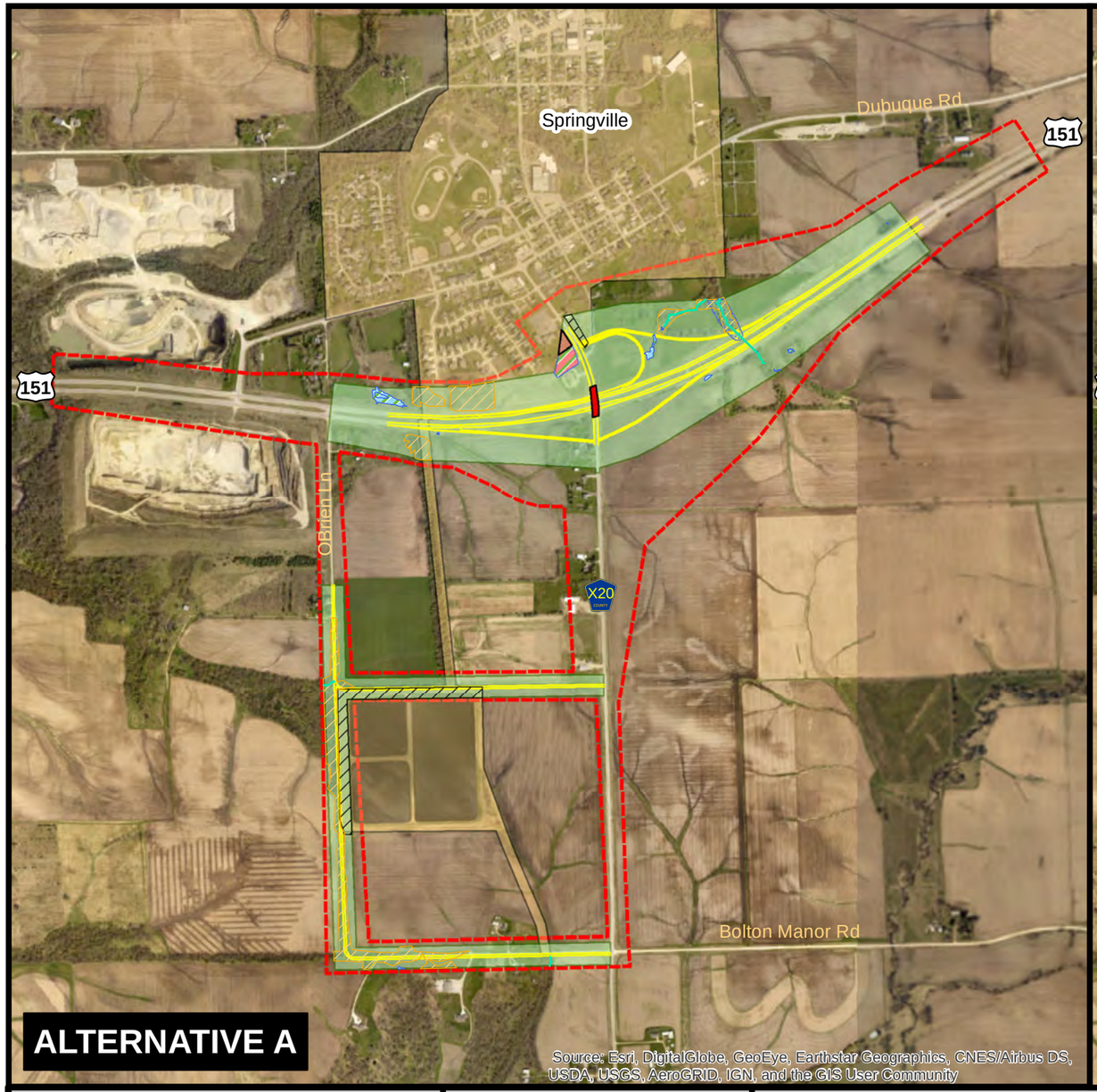
Legend

NEPA Impact Area

Project Location

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 1
11/09/2018



IOWA DOT

N
W E
S

0 0.25 0.5
Miles

Legend

- Floodplains
- Regulated Materials
- Streams
- Wetlands
- Woodlands
- Church
- Utilities
- Proposed Bridge
- Proposed Pavement
- Alternative A
- Alternative D
- Corporate Limits
- Study Area

Alternatives Dismissed

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 2
11/09/2018

IOWA DOT

N
W E
S

0 0.25 0.5
Miles

Legend

- Floodplain
- Regulated Materials
- Streams
- Wetlands
- Woodlands
- Church
- Utilities
- Corporate Limits
- Proposed Bridge
- Proposed Pavement
- Impact Area
- Study Area

Alternative Dismissed - Alternative C

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 3
11/09/2018

IOWA DOT

N
W E
S

0 0.25 0.5
Miles

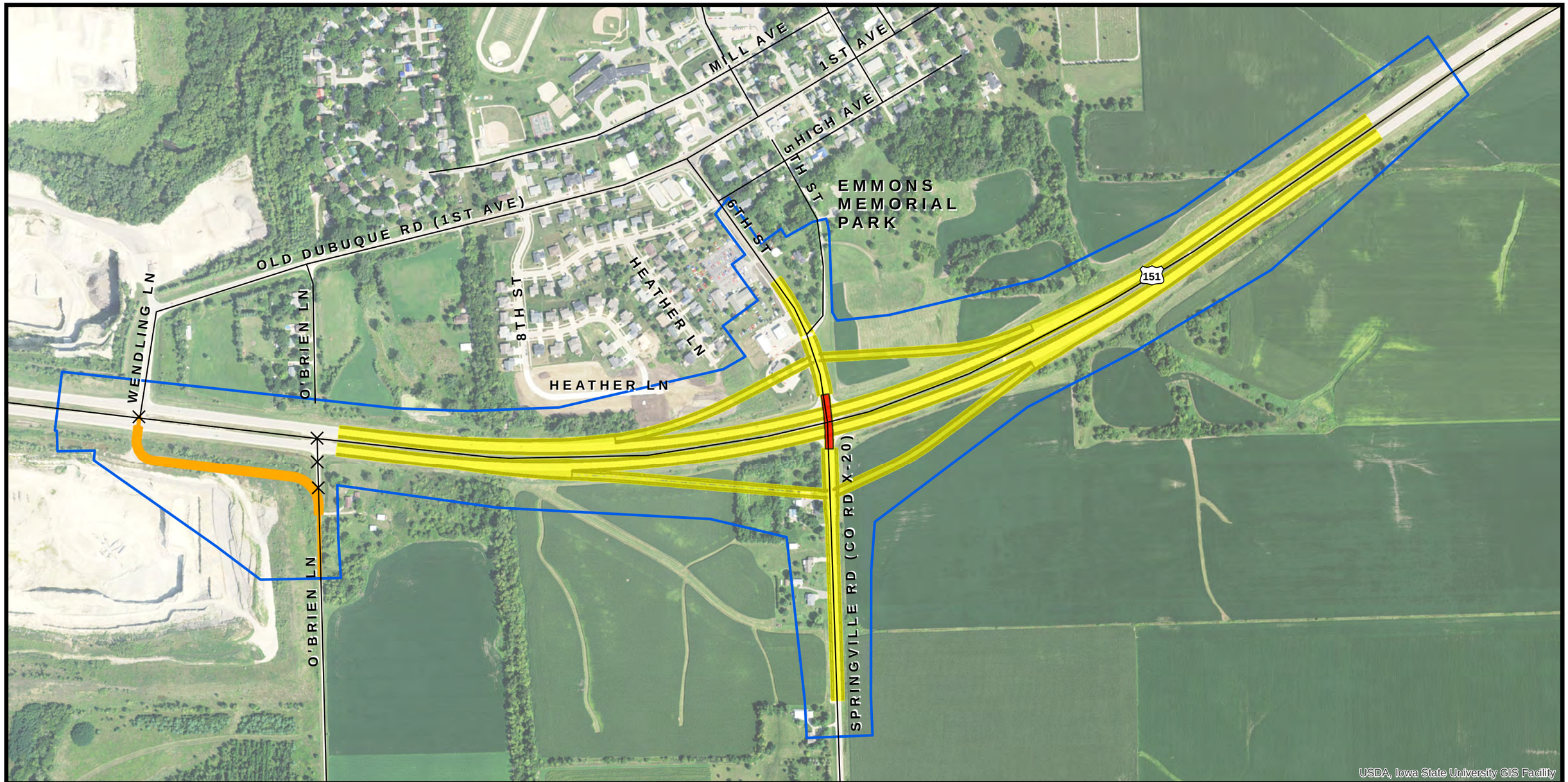
Legend

- Floodplain
- Regulated Materials
- Streams
- Wetlands
- Woodlands
- Church
- Utilities
- Corporate Limits
- Proposed Bridge
- Proposed Pavement
- Impact Area
- Study Area

Alternative Dismissed - Alternative E

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 4
11/09/2018



IOWA DOT

N
W E
S

0 0.125 0.25 Miles

Legend

- NEPA Impact Area
- Proposed Bridge
- Proposed Pavement
- Proposed Granular Surface

Preferred Alternative (Alternative B)

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 5
11/09/2018

5.0 ENVIRONMENTAL ANALYSIS

This section describes the existing socioeconomic, cultural, natural and physical environments as well as the impacts in the project corridor for the Preferred Alternative and the No Build Alternative. The resources with a checkmark in the second column in Table P-1 located at the beginning of this document are discussed below.

Each resource section includes an analysis of the impacts of the No Build Alternative and the Preferred Alternative. Because it is early in the design process, a preliminary NEPA impact area was used for estimating direct and indirect impacts on the evaluated environmental resources. The preliminary NEPA impact area includes roadway right-of-way needs and the area where construction could occur. The area actually impacted by the Project will likely be less than what is portrayed within the preliminary NEPA impact area, and some impacts to resources are expected to be minimized or avoided as the Project design is refined. Consequently, the potential impacts discussed in this section of the EA are conservative, as efforts to minimize direct and indirect impacts will be made during final design.

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 as well as the project's consistency with development and planning by a city or other public entity.

5.1.1 Land Use

Existing land use information was gathered for the city of Springville, including the *City/County Strategic Growth Plan and Agreement for the City of Springville and Linn County, Iowa 2003-2023 and the Linn County, Iowa Comprehensive Plan (2013)*. A copy of the land use map appears in Appendix B. The study area is predominately agricultural but with a mix of other land uses including: industrial, commercial, utilities, and residential. Industrial and commercial land uses in the study area are located adjacent to U.S. 151. Residential land uses are scattered in various locations within the study area including south along Co Rd X-20 and in Springville throughout the city. Agricultural land is primarily located south of U.S. 151.

No Build Alternative: The No Build Alternative would not impact existing or future land uses since no construction would occur. With ample agricultural land, the study area has available land for future development. However, there are no known development plans for these areas and it is expected that current land use will not likely change in the future.

Preferred Alternative: The Preferred Alternative would impact existing land uses with the addition of an interchange in areas currently being used for commercial, residential and agricultural purposes. A total of 127 acres would be acquired for the project including 59.6 acres of farmland, total acquisition of one commercial business, partial acquisition of a church property and two businesses (quarry and convenience store), and full acquisition of four (4) residential homes. However, mitigation of impacts would include compensation to property owners for acquired land and reconstruction of impacted facilities (if appropriate), as well as provisions for relocation assistance which is discussed in the sections below.

The Preferred Alternative would also provide safer and improved access to Springville and would facilitate future development near the project site. The Preferred Alternative is consistent with the *City/County Strategic Growth Plan* mentioned above. Therefore, the impacts on land use would be minor and not considered significant.

5.1.2 Churches and Schools

One church is located within the project study area. St. Isidore the Farmer Catholic Church (603 6th Avenue) is located in the study area. No schools are located within or adjacent to the project study area.

No Build Alternative: The No Build Alternative would not involve construction and therefore would have no impacts to existing churches or schools within the study area.

Preferred Alternative: The Preferred Alternative would impact a portion of the St. Isidore the Farmer Catholic Church.

Construction of the Preferred Alternative would require the acquisition of approximately 2.27 acres of land from the church. The acquisition would be on the south and east sides of the church including a grassy open area, and a portion of the parking lot (Figure 6). The church would lose some parking spaces from the southeast portion of the lot, the number of which would be determined during the final design phase. It appears there is available land on the church's property which could be used to develop parking. The acquisition would extend just past the driveway so the church's access would be relocated north to maintain an entrance. It is anticipated that mitigation costs would be determined during appraisal and right-of-way negotiations, and will include replacement of parking which would be determined in coordination with church personnel.

5.1.3 Economic

As discussed above in Section 5.1.1 Land Use, the study area is predominately agricultural with farmland, rural residences, and commercial businesses at the intersection of U.S. 151 and Co Rd X-20. One business would be acquired: Security State Bank as well as four residential properties.

No Build Alternative: Under the No Build Alternative, commercial and residential displacements would not occur. Therefore, no adverse or beneficial economic impacts would occur.

Preferred Alternative: The Preferred Alternative would displace one (1) commercial property and four (4) residential properties. As a result, property tax revenue could be lost when these properties are taken out of the tax base, if they do not rebuild within Springville or Linn County. According to the most recent property tax statements (2015-2016) for the displaced properties, the Springville tax base would be reduced by approximately $27,600 and the Linn County tax base would be reduced by approximately $13,480. For Springville, this would represent an approximately 5 percent decrease in property tax revenues and in Linn County the tax revenue decrease would be 0.02 percent. If after the interchange is constructed and if adjacent right-of-way is made available for redevelopment, the Security State Bank could choose to relocate their business within Springville which could offset tax revenue loss. Likewise, the displaced residents could choose to rebuild on their property if adequate land is available for them to do so.

There would also be a minor tax base reduction as a result of partial property acquisition that would require minor amounts of land area of several parcels adjacent to the existing right-of-way, thereby reducing the land value and associated taxes of the affected parcels. However, the land area reductions and corresponding tax base reduction would not be substantial and therefore not considered significant.

During construction of the Preferred Alternative, short-term economic impacts to businesses may occur because of increased traffic congestion from temporary lane reductions/closures or increases in travel times due to detour routes. Access to some businesses could be temporarily restricted or rerouted; however, some traffic lanes would remain open and access to businesses would be modified, through temporary detours and provision of adjacent access locations. The impact of roadway construction on local business patronage can vary depending on individual customers' preferences in regard to shopping at businesses near construction sites. These short-term impacts are considered minor and not considered significant on the income of the few businesses located near the project study area.

Short-term economic benefits would be derived from construction of the Preferred Alternative through an increase in construction-related employment and increased economic activity from those employees patronizing local businesses and service establishments along and near the project corridor.

Long-term economic benefits would include the potential for increased economic activity because of a safer access, improved access to businesses and improved potential for bicycle-pedestrian facilities.

The Preferred Alternative may also help to revitalize development in some areas particularly adjacent to the new interchange. This project may encourage commercial development in some areas, in accordance with future land use plans; all of which in turn would provide additional employment opportunities and tax revenue.

5.1.4 Parklands and Recreational Areas

A review of local/state park and recreational resources indicated there is one park, Emmons Memorial Park near the study area (Figure 6). In addition, correspondence was exchanged with the city of Springville Parks Board, Linn County Conservation, and Iowa DNR. This agency correspondence did not identify any future parks or conservation areas or other recreational land.

No Build Alternative: The No Build Alternative would not cause adverse impacts to the park.

Preferred Alternative: Emmons Memorial Park is located in Springville near the study area. This 2.72-acre park has a parking lot, playground, and open space used for soccer and other activities. The Preferred Alternative would avoid impacts to Emmons Memorial Park as it is located just north of the construction limits. The park will remain open during construction and access will be maintained throughout.

5.1.5 Bicycle and Pedestrian Facilities

A review of information pertinent to bicycle and pedestrian facilities took into consideration bicycle lanes, sidewalks and multi-use trails. Aerial imagery and other databases were used to identify bicycle and pedestrian facilities within the study area. There is one sidewalk located in the study area on the west side 6th Street (Co. Rd. X20). It begins at the Casey's General Store and extends north to 1st Avenue.

The Springville Connection Trail is a planned trail shown in the East Central Iowa Council of Government's (ECICOG) 2011 Regional Trails Plan that would connect from the Grant Wood Trail and run parallel to Co. Rd. X20 north to the Springville Elementary School (approximately 1.7 miles). The Grant Wood Trail intersects Co. Rd. X20 just south of Bolton Manor Road.

No Build Alternative: The No Build Alternative would not cause adverse impacts to the existing sidewalk. It would not provide any benefit to a future trail connection to Springville.

Preferred Alternative: The Preferred Alternative would impact a portion of the sidewalk from the Casey's General Store north to St. Isidore Catholic Church. Sidewalk impacted by the project will be replaced whenever possible.

There is no bicycle facility along Co. Rd. X20 currently however; the Springville Connection Trail is in the long range trail plan (see Appendix B for an excerpt of the trail plan). This proposed trail would connect the Grant Wood Trail and Springville Elementary School utilizing the proposed new bridge to be constructed as part of the interchange to cross U.S. 151. The proposed new bridge would be wide enough to accommodate this recreational trail in the future. The interchange project would be beneficial in providing a safe connection across U.S. 151 for pedestrians and bicyclists. ECICOG, the city of Springville and Iowa DOT would coordinate regarding the trail as this project enters final design. However, the trail is not part of this project and crosswalks on the ramps would be added when the trail is developed.

5.1.6 Right-of-Way

To assess the potential impacts associated with the Preferred Alternative, right-of-way acquisition was evaluated based on existing right-of-way, private and public property boundaries, and future right-of-way needs.

As described in Section 5.1.1 Land Use, the study area is a mix of land uses. The city of Springville is on the north side of U.S. 151 and thus within the study area there are commercial businesses, homes, a church, and utilities. In the study area south of U.S. 151 there is farmland, an active quarry and rural

residential properties. The majority of the right-of-way required is for construction of the interchange but a smaller amount is also needed to realign O'Brien Lane to create an access for the quarry and residents located along this roadway. O'Brien Lane would be a right-in/right-out only intersection.

No Build Alternative: The No Build Alternative would not involve new construction and thus would not require acquisition of right-of-way. Therefore, there would be no impacts to right-of-way.

Preferred Alternative: The Preferred Alternative would result in the acquisition of approximately 127 acres of private and city-owned land of new right-of-way from 26 landowners. There would be partial and total acquisitions from these property owners. Total acquisitions include one business (Security State Bank) and four homes. These relocations are addressed below in Section 5.1.7 Relocation Potential. In addition, some of the residential lots available for development located along the east-west portion of Heather Lane, north of U.S. 151 would be acquired. The exact number of lots to be acquired will be determined during the design phase of the project. Partial acquisitions include strip right-of-way from several agricultural fields and two businesses (Casey's and Wendling Quarry). The south access to Casey's General Store would be closed and the north may need to be relocated which would require a small amount of right-of-way but the details of this access and right-of-way need will be determined during final design. A portion from the east side of the quarry, south of U.S. 151 would be acquired to construct relocated O'Brien Lane. Right-of way acquisitions from agricultural parcels range from less than a quarter of an acre to more than 14 acres. Efforts will be made during final design to minimize right-of-way acquisition and relocations to the extent practicable.

Right-of-way acquisition and relocations will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended. Relocation assistance will be made available to all affected persons without discrimination.

5.1.7 Relocation Potential

To assess the potential impacts associated with the Preferred Alternative, right-of-way acquisition and property relocations were evaluated based on the conceptual design for the proposed U.S. 151 interchange at Springville.

The Iowa DOT offers a relocation assistance program to property owners or tenants that are displaced by a state highway project, including relocation assistance advisory services and payment for moving expenses. Iowa Code 316, the Relocation Assistance Law, establishes a uniform policy for the fair and equitable treatment of displaced persons that serves to minimize the hardships of relocation. Relocations would be conducted in conformance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended by the Surface Transportation Assistance Act of 1987 and 49 Code of Federal Regulations, Part 24, effective April 1989. Relocation assistance would be made available to all affected persons without discrimination. Iowa DOT follows a similar process for commercial property displacements.

Difficulties in locating replacement housing should be minimized by incorporating additional lead time into the relocation planning process. Complicated relocation problems that may arise will be addressed by the state's commitment to the provisions in 49 CFR 24.404 (Replacement Housing of Last Resort).

No Build Alternative: The No Build Alternative would not require any relocations because there would be no construction and no right-of-way acquisition to impact businesses or residences.

Preferred Alternative: As described above in Section 5.1.6 and shown on Figure 6, one (1) commercial business and four (4) residential properties would be displaced by the project. In addition there will be partial acquisition of two (2) commercial businesses (Casey's and Wendling Quarry) and several agricultural properties. The extent of the partial acquisitions will be further developed during final design.

The displaced commercial property is Security State Bank, located on 6th Street (Co. Rd. X20) just north of U.S. 151. A check of the websites: Zillow, Century 21 Commercial and Elliott Realty Group,

found no commercial properties for sale in Springville as of May 25, 2018. Given the lack of available commercial properties at the time of the analysis, as the project construction and real estate acquisition dates become more certain, Iowa DOT will reassess commercial building availability as part of the detailed Acquisition Stage Relocation Plan. In addition, once the proposed project is constructed, adjacent right-of-way at the interchange may become available for development.

Of the four displaced residential properties, one is located in Springville and the others are along the west side of Co. Rd. X20 south of U.S. 151. The home in Springville (Figure 6) is shown as an acquisition because 5th Street would be too close to the off ramp and would need to be relocated to line up with the north entrance to Casey's. This would likely result in the total acquisition of this residence. For the three residences south on Co. Rd. X20, the current estimated right-of-way need line *before* ditches have been designed, is to the front edge of the homes. After ditches and other final design details are completed, the right-of-way need line would be further out requiring acquisition of these homes.

According to the Linn County Assessor's online real estate records for January 1, 2018, these properties range in value (including house and lot) from $182,500 to $291,400. A check of Zillow (on May 25, 2018) for available houses in Springville found eight homes and 15 building lots for sale. Price ranges and number of residential properties found in the search included the following:

- $38,500 to $46,900 – 13 building lots
- $210,000 to $543,000 – 2 building lots
- $85,000 to $130,000 – 4 properties
- $130,000 to $220,000 – 1 property
- $220,000 to $400,000 – 1 property
- $1.09 million to $2.5 million – 2 properties

At the time of this analysis, it appears there is replacement housing available however much of it isn't of the type most in need which is rural residential. Difficulties in locating replacement housing should be minimized by incorporating additional lead time into the relocation planning process. Complicated relocation problems that may arise will be addressed by the state's commitment to the provisions in 49 CFR 24.404 (Replacement Housing of Last Resort). As the project construction and real estate acquisition dates become more certain, Iowa DOT will reassess residential housing availability as part of the detailed Acquisition Stage Relocation Plan.

5.1.8 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.

Transportation projects have the potential for impacts on emergency routes both during and after construction. To determine 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.

Springville law enforcement is served by the Linn County Sheriff's Department and fire rescue is covered by an all-volunteer department. There are no hospital or emergency service facilities within the study area but emergency response routes extend through the study area. Hospitals and trauma centers are located in nearby Cedar Rapids about 15 miles southwest of Springville. U.S. 151 is often used by emergency response vehicles to reach and transport patients from rural communities surrounding Springville. This roadway is utilized by fire, rescue, and law enforcement vehicles from nearby towns such as Anamosa, Fairview, and Stone City.

No Build Alternative: The No Build Alternative would not result in impacts to emergency routes because the proposed interchange would not be constructed.

Preferred Alternative: During construction, U.S. 151 will remain open but lanes would be reduced to one in each direction with lower speed limits. Emergency vehicles could experience slower response times while traveling through the study area during construction. O'Brien Lane will be extended west as a frontage road to align with Wendling Road. Access to properties would be maintained by staged construction, temporary access roads or other appropriate means. Coordination with emergency responders will be required prior to and during construction. This coordination will help alleviate impacts to emergency response facilities.

Following construction of the interchange, U.S. 151 at Springville would be safer for emergency personnel responding to incidents getting access to and from the study area, city of Springville, and nearby communities. Under the proposed project, benefits to emergency response would be realized.

5.2 Natural Environment Impacts

This section characterizes the natural resources in the study area and addresses potential impacts of the No Build Alternative and the Preferred Alternative. The resources discussed are wetlands, surface waters and water quality, floodplains, wildlife and habitat, woodlands, and farmlands.

5.2.1 Wetlands

Waters of the United States (WUS), including wetlands, streams, rivers and other drainages, 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 WUS (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 for unavoidable impacts.

Field review of the study area was performed in October 2012 to delineate the wetlands located within the study area. Prior to the field review, a desktop survey was conducted using National Wetland Inventory (NWI) data, a United States Geological Survey (USGS) Quadrangle map and current aerial photographs to identify wetlands and waters of the U.S. (WUS).

No Build Alternative: The No Build Alternative would not impact any wetlands in the study area because no roadway construction would occur and therefore no fill material would be placed in wetlands.

Preferred Alternative: The 2012 field work identified 13 wetlands within the study area. Of those, eight (8) would be partially or entirely located within the impact area for the Preferred Alternative which would impact approximately 0.59 acres of wetlands (Figure 6). Table 5-1 below lists impacted wetlands by type and acreage.

As the project moves into final design, verification of the wetlands present along with efforts to minimize impacts to wetlands will be made. Impacts as a result of this project will require a Section 404 permit from the USACE. Due to the nature and size of the project, it is assumed that unavoidable wetland impacts will occur. The anticipated impacts are expected to fall under the limits of Nationwide Permit #14 for linear transportation crossings. Where wetland impacts cannot be avoided, mitigation would occur at ratios determined by the USACE. Wetland mitigation credits may be available from an approved wetland mitigation bank if it has adequate credits at the time of the permit application.

Table 5-1. Wetland Impacts of the Preferred Alternative

Wetland ID	Wetland Type	Area Impacted (Acres)
1	Emergent	0.0030
2	Emergent	0.0045
3	Emergent	0.0011
4	Emergent	0.0411
5	Emergent	0.3701
6	Emergent	0.1532
7	Open Water	0.0160
8	Emergent	0.0068

5.2.2 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.

On-site WUS determinations were also performed in October 2012 in accordance with guidance received from the USACE for all significant drainages within the project limits. These WUS determinations indicated approximately 1,983 linear feet of open channel streams in the study area. There are no streams listed as an Outstanding Iowa Water (OIW) or other protected streams identified by Iowa DNR. Other sources of surface water include small agricultural drainages, roadway drainage ditches, and ponds.

No Build Alternative: Under the No Build Alternative, no construction would take place and thus no impacts to surface waters would occur.

Preferred Alternative: The Preferred Alternative would impact approximately 221 linear feet of streams (Figure 6). However, as the project moves into final design, efforts will be made to decrease stream impacts.

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 one 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.

5.2.3 Floodplains

Floodplain information was obtained from the Federal Emergency Management Agency (FEMA) online database for the project study area. There is an unnamed stream in the northeast portion of the study area classified as Zone A of the 100-year floodplain as shown on FEMA Flood Insurance Rate Map 19113C0337D. The 100-year (base) flood is identified as the flood having a one percent probability of being equaled or exceeded in any given year. The regulatory "floodway" is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without increasing the base flood elevation more than a predetermined volume.

Agency coordination letters were sent to the Iowa DNR, FEMA, and EPA regarding floodplain issues. No response was received from FEMA regarding the project. The Iowa DNR provided a response on January 31, 2012, but it did not have comments specific to floodplains. EPA responded on January 19 and 20, 2012 and provided screenshots of NEPAssist which showed floodplains in the study area but had no comments regarding them. These letters are included in Appendix C.

No Build Alternative: The No Build Alternative would have no impact on floodplains because no construction would occur.

Preferred Alternative: Under the Preferred Alternative, 0.7 acre of 100-year floodplain would be impacted. As the design phase advances, efforts will be made to reduce any potential impacts on floodplains. An Iowa DNR Floodplain Development Permit and Section 404 Permit will be applied for during final design if required.

5.2.4 Wildlife and Habitat

Wildlife habitat was evaluated within the study area as part of field work conducted for wetlands and woodlands for the proposed project. Habitat was evaluated for its potential to support state or federally-listed threatened and endangered species. It was determined that suitable habitat does not exist within the study area. However, the wetlands, woodlands and streams in the area would support many common species such as white-tail deer, skunk, songbirds, and raptors.

No Build Alternative: The No Build Alternative would not impact wildlife and habitat in the study area.

Preferred Alternative: The Preferred Alternative would impact wildlife and habitat at woodlands, wetlands and streams. (Wetland, Stream, and Woodland impacts are discussed in Sections 5.2.1, 5.2.2, and 5.2.5). Approximately 3.4 acres of woodland, 0.88 acre of wetland and 221 linear feet of streams would be impacted by the Preferred Alternative. Although no threatened and endangered species would be impacted, many common species would be disturbed such as deer, raccoon, squirrels, mice, songbirds, and birds of prey. Mitigation for wetland, stream and woodland will be conducted during the final design when exact impacts are known.

5.2.5 Woodlands

The Iowa DOT considers woodland impacts to occur if the area to be impacted consists of 2 acres or greater of forested land having at least 200 trees (3-inch diameter at breast height or greater) per acre. Woodland impacts are not considered to occur if the area impacted is less than 2 acres. Woodlands in the study area are in patches, along an unnamed stream on the east side of the study area, and a city-owned parcel that extends south to their sewage lagoons.

No Build Alternative: The No Build Alternative would have no impact on the woodlands in the study area.

Preferred Alternative: Under the Preferred Alternative, 3.4 acres of woodland would be impacted (Figure 6). The woodlands are located throughout the study area as described above. As the design phase progresses, efforts will be made to further reduce the impact on woodlands. Mitigation will be required because the Iowa DOT standard for woodland impacts is two or more acres. Per Iowa Code 314.23, 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.

In addition, any tree clearing will need to comply with the Migratory Bird Treaty Act which specifies that no trees in Iowa be cut down between April 1st and July 15th unless a field survey determines there are no active nests.

5.2.6 Farmlands

The Farmland Protection Policy Act (FPPA) is intended 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, local government, and private programs and policies to protect farmland" (7 USC 4201(b)).

A USDA Natural Resources Conservation Service (NRCS) Farmland Conversion Impact Rating Form for Corridor Type Projects (NRCS-CPA-106) was completed for the Preferred Alternative and submitted to NRCS. Farmland, as defined by the NRCS, exists within the study area. The completed form is included in Appendix D. Alternatives receiving a total score of less than 160 need not be given further consideration for protection.

No Build Alternative: No impacts to farmland would occur under the No Build Alternative because no construction activities would take place.

Preferred Alternative: Under the Preferred Alternative, a total of 60 acres of farmland would be acquired. Of these 60 acres, 42.3 acres are considered prime farmland and 7.6 acres are considered to have statewide importance (Appendix D). The Preferred Alternative received a score of 162 out of a possible 260 points on the Farmland Conversion Form (NRCS-CPA-106). Because the score was over 160 points, this alternative warrants further consideration for ways to minimize impacts. During the design phase, efforts will be made to reduce the amount of farmland needed for the project. The Preferred Alternative would not create any non-farmable land and all of the farmable land in the study area would still be accessible from existing roads.

5.3 Cultural Impacts

According to Title 36 CFR Part 800.8, federal agencies are encouraged to coordinate compliance of Section 106; and any steps taken to meet the requirements of NEPA. Coordination of both reviews should occur early in the process to fulfill the respective requirements.

Title 36 CFR 800.8 also details the general principles of coordinating NEPA and Section 106, relevant NEPA actions, and the use of the NEPA process for satisfying portions of the Section 106 requirements, including standards for developing NEPA environmental documents for Section 106 purposes.

This section addresses potential direct and indirect impacts on both historic and archaeological resources located within the Study Area.

5.3.1 Historic Sites

A Phase 1 Intensive Architectural and Historic Survey was completed in early 2013. A total of 372 acres in the Study Area were examined by the survey. It was determined that none of the properties evaluated in the Study Area met criteria for listing on the National Register of Historic Places (NRHP). Based on the findings of this survey, Iowa SHPO concurred the determination is *No Historic Properties Affected* for the project (see letter in Appendix C).

No Build Alternative: The No Build Alternative would not result in any construction of the roadway and no new right-of-way would be needed. Therefore, there would be no effect on historic resources.

Preferred Alternative: No properties within the Study Area were determined eligible for listing on the NRHP and the Iowa SHPO concurred with the determination of *No Historic Properties Affected*. Therefore, no further work is recommended for historic properties.

5.3.2 Archaeological Sites

A Phase 1 Archaeological Survey was completed in March 2013 for the Study Area. A total of 333 acres were surveyed out of a total of 372 acres in the Study Area. Access was denied at two properties totaling 39.5 acres. During the survey, six archaeological sites were identified but none are considered eligible for listing on the National Register of Historic Places and no further work is recommended for them. The Iowa SHPO gave a conditional concurrence of *No Historic Properties Affected* (see letter in Appendix C).

No Build Alternative: The No Build Alternative would not result in any construction of the roadway and no new right-of-way would be needed. Therefore, there would be no effect on archaeological sites.

Preferred Alternative: During the archaeological survey, six previously unrecorded sites were discovered. However, none of them were determined eligible for the NRHP. Property access was denied at 39.5 acres but it appears at this time that these areas will be avoided by the Preferred Alternative. If during final design, it is determined that right-of-way would be necessary from any of these areas, then survey would be required.

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

A traffic noise impact analysis was completed at six (6) receptor locations along the proposed project corridor in October 2013 and revised in March 2018 to include the diamond interchange (Preferred Alternative) (see Figure 6 for receptor locations). The analysis was conducted in accordance with the FHWA Noise Standard, 23 CFR Part 772 requirements and the Iowa DOT's traffic noise policy. The purpose of the noise impact analysis was to determine the noise levels in the project area and to predict the impact of traffic noise relative to the Noise Abatement Criteria (NAC) noise levels established in FHWA regulations.

A receptor is defined as a location of a noise sensitive area. A receptor is considered to have a project related traffic noise impact if noise levels approach or exceed the NAC. A noise level of 1 dB(A) less than the NAC constitutes approaching the NAC. Noise impact areas are identified with noise values greater than 67 dB(A) for parks/residential areas or 72 dB(A) for developed lands/commercial areas.

Noise impacts from the proposed project were projected using FHWA's Traffic Noise Model (TNM) 2.5. Table 5-2 lists the TNM noise level results at the modeled receptors and compares 2012 existing noise levels with the 2043 design year for the proposed project.

Table 5-2. Noise Receptors and Estimated Noise Levels

Receptor ID	Land Use	Existing Conditions 2012 Traffic [dB(A)]	Preferred Alternative 2043 Traffic [dB(A)]	Existing vs. Preferred Alternative [dB(A)]	Leq Noise Abatement Criteria (NAC)	Preferred Alternative Approaches or Exceeds Leq Criteria
1	Residential	56	61	5	66	No
2	Commercial	58	60	2	71	No
3	Residential	58	63	5	66	No
4	Commercial	Acquired	Acquired	NA	71	NA
5*	Residential	59	57	-2	66	No
6*	Residential	54	56	2	66	No

*Properties to be acquired but determined after noise analysis was completed.

No Build Alternative: A total of six (6) receptors were modeled for this project, however, three of these will be displaced by the project including Security State Bank (noted in Table 5-2 during modeling), and two residences (2586 Springville Rd. and 301 5th St South). Under the existing (2012) traffic conditions, none of the receptors were at or exceeded the Noise Abatement Criteria levels. With 2043 traffic conditions under the build alternative, these receptors were still below the NAC, therefore it would be expected that under the No Build Alternative, none of the receptors would exceed the NAC.

Preferred Alternative: Generalized noise contours were developed based on TNM run results. Predicted noise levels are based on estimated traffic levels for 2043. Of the six (6) receptors modeled for the Preferred Alternative, none approached or exceeded the NAC. Therefore, no noise abatement considerations are warranted.

The 66 dB(A) contour is predicted to be at approximately 200 feet and the 71 dB(A) contour is predicted to be at approximately 100 feet from the mainline of U.S. 151. It is highly recommended that future noise sensitive land uses adjacent to U.S. 151 be located beyond these distances.

Iowa DOT's Noise Policy, PPM 500.07 (revised July 13, 2011), states that determining reasonableness and feasibility of noise abatement measures involves the use of professional judgment to weight the overall benefits of noise abatement against the overall adverse social, economic, and environmental effects of noise abatement.

Factors to be considered in determining noise abatement **feasibility** include:

- The constructability of the noise abatement feature. Safety, barrier height, topography, drainage, utilities, maintenance of the abatement measure, maintenance access to adjacent properties, and environmental impacts are considerations in determining that it is possible to design and construct the noise abatement measure.
- The effectiveness of a noise abatement feature to reduce noise. If a 5 dB(A) reduction cannot be expected for a majority of impacted receptors, then the noise abatement feature is not considered feasible.

Three primary factors to be considered in determining **reasonableness** include:

- The opinions of affected residences as determined by application of Iowa's public involvement policy. Noise barriers are not constructed if input received during that process indicates they are clearly unwanted.

- The cost of abatement needs to meet Iowa DOT's noise policy cost reasonableness criteria. It should be noted that generally noise barriers designed for individual residences are cost prohibitive to construct.
- Per federal code 23 CFR 772 and Iowa DOT's noise policy, the noise abatement feature needs to meet the Iowa DOT's noise reduction design goal of 10 dB(A) for at least one benefitted receptor.

Because traffic noise impacts were not identified as a result of the proposed project, noise abatement measures were not evaluated; therefore no further evaluation of noise abatement measures is needed at this time.

5.4.2 Contaminated and Regulated Materials Sites

A review of potential contaminated and regulated materials sites was conducted in and near the study area at Springville using Iowa DNR's Facility Explorer and EPA's NEPAssist. There is only one site of concern in the study area: Casey's General Store (605 6th St.) for its underground petroleum storage tanks. It is not listed on Iowa DNR's database as a leaking underground storage tank site but should be considered as a potential hazardous materials site. There are four sites listed within Springville for air emissions however none would be impacted by the project.

No Build Alternative: Under the No Build Alternative no contaminated or regulated materials sites would be encountered because no construction would occur.

Preferred Alternative: Under the Preferred Alternative, the Casey's General Store would be a partial acquisition to provide a new access. It is a fairly new store, built in 2008 with no known contamination issues. An active gas station/convenience store is considered to be a moderate risk regulated materials site and is not listed on Iowa DNR's Facility Explorer online site.

All known and unknown hazardous materials encountered during roadway improvements would be handled per federal, state, and local laws and regulations. Where hazardous material or solid waste is identified in the required right of way, resolution with the property owner would be conducted prior to purchase. If an unknown site is encountered during construction, the Iowa DOT and the Iowa DNR will be contacted and appropriate laws and EPA regulations would be followed to eliminate or minimize any adverse environmental consequences. Standard best management practices would be used for demolition, clearing and grubbing. Buildings that are identified for demolition would be thoroughly inspected for both stored hazardous materials and hazardous materials used in the construction of the building such as asbestos. For these reasons, any potential encounter with a contaminated site would likely have minor impacts and would be considered not significant.

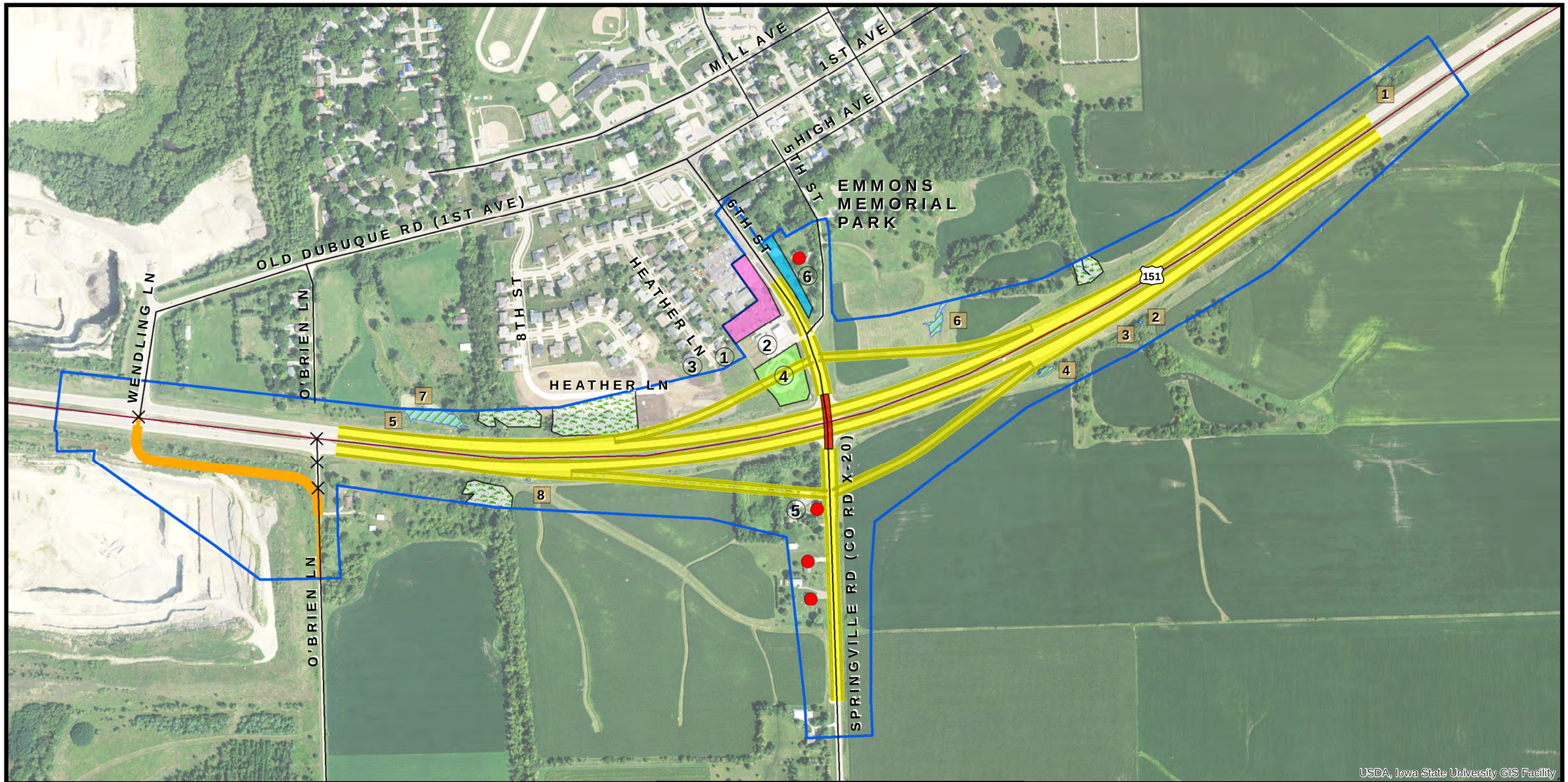
5.4.3 Utilities

There are two major utilities within the study area including a water tower and a pipeline. The city of Springville owns and operates the water tower located on the east side of 6th Street. A gas pipeline owned by Black Hills Energy runs parallel to Co. Rd. X20 through the study area.

Other utilities in the study area include overhead electrical distribution lines along 6th Street, and the Springville Cooperative Telephone Association which provides cable TV, internet, wireless and regular phone lines.

No Build Alternative: Under the No Build Alternative, no impacts to utilities would occur.

Preferred Alternative: Under the Preferred Alternative, approximately one acre would be impacted of the water tower's parcel (Figure 6). The water tower would not be disturbed but some of the area around it may require a partial acquisition or temporary impact. Also located on this parcel is a gas meter, owned by Black Hills Energy which may be impacted. The extent and exact nature of the impacts will be determined during the design phase of the project. Coordination with all utility companies, public and private, will occur during design and construction to ensure uninterrupted or minimally disrupted service during construction.



IOWA DOT

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0 0.125 0.25 Miles

Legend

- NEPA Impact Area
- Proposed Bridge
- Proposed Pavement
- Proposed Granular Surface
- Residential Displacement
- Commercial Displacement
- Wetlands
- Woodlands
- Streams
- Springville Water Tower
- St. Isidore Catholic Church
- (#) Noise Receptors
- [#] Wetland ID

Environmental Impacts

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 6
11/09/2018

5.5 Cumulative

Cumulative impacts are those that result from past, present, and reasonably foreseeable actions, combined with the potential impacts of the proposed improvements. Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. A cumulative impact assessment looks at the collective effects imposed by individual projects in the same vicinity of the proposed project.

The assessment focused on several resources susceptible to cumulative impacts. Additionally, the analysis compared the timelines of other reasonably foreseeable major projects that would likely occur in the time frame of the Project in order 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.

Past Projects

Recently completed projects include the following:

- U.S. 151 four-lane bypass of Springville was completed in 1991.
- Security State Bank constructed at 607 – 6th Street in 2005.
- Casey's General Store constructed at 605 – 6th Street in 2008.

Current Projects

Within Springville, the Spring Meadows residential subdivision has been adding new homes with the most recent constructed in 2016. Over 10 lots are available for new construction within this subdivision. This subdivision is located in the southwest area of Springville, north of U.S. 151 and west of 6th Street (Figure 7).

The Grant Wood Trail is programmed to be paved in 2018 (Figure 7). This 3.2 mile section of trail would extend from Iowa 13 in the city of Marion to Oxley Road. This is one portion of the Grant Wood Trail that will eventually connect with Co. Rd. X20.

Future Projects

On U.S. 151, one mile west of Co. Rd. X20, the East Big Creek Bridge is programmed for a bridge deck overlay in fiscal year 2021 (Figure 7).

Two other trail projects are included in the 2011 Long Range Trails Plan by ECICOG but currently not programmed. The trails are the Springville Connection Trail and the Springville North Trail. The Springville Connection Trail would begin at the Grant Wood Trail at Co. Rd. X20 and go north to the Springville Elementary School for a total of 1.7 miles. The Springville North Trail would extend this trail from the elementary school to Stone City for a distance of 6.8 miles (Figure 7 and excerpts from ECICOG 2011 Long Range Trails Plan in Appendix B).

The proximity of the proposed interchange could make the area around it more attractive to development. However, there are no known plans for development in the area of the interchange at this time (June 2018).

Resources potentially experiencing cumulative impacts include land use and farmland. The construction of the Preferred Alternative in conjunction with past, present and future projects mentioned above would:

- Have a minor impact on farmland as the existing land is converted to transportation use to construct the proposed interchange.
- Have a minor impact on land use as the existing agricultural land around the proposed interchange could have some potential for development.

In summary, the overall cumulative impacts of the Preferred Alternative are not considered to be collectively significant.

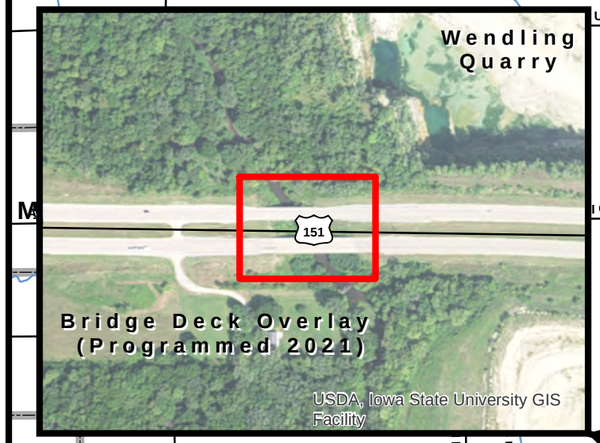
5.6 Streamlined Resource Summary

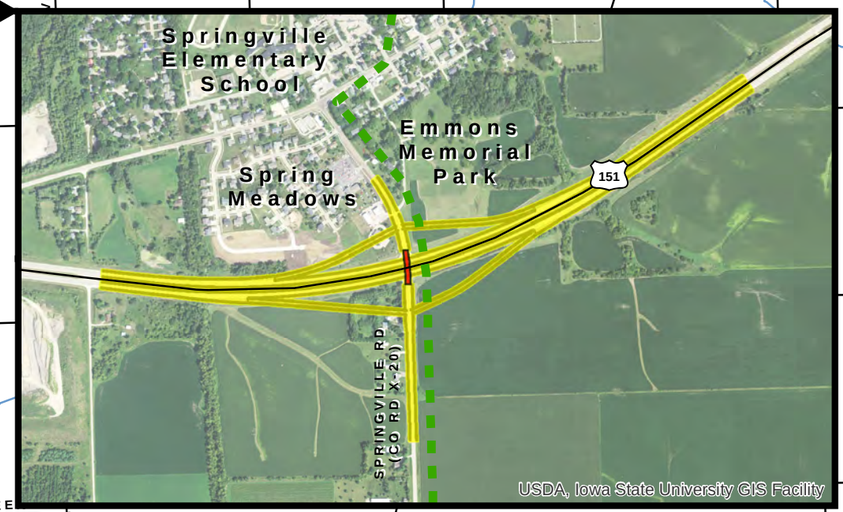
Table 5-3 below includes a summary of the resources discussed in the body of this EA. Resources not discussed in the body of this EA are located in the Streamlined Resource Summary, Appendix A. The summary includes information about the resources, the method used to evaluate them, and when the evaluation was completed.

Table 5-3. Summary of Impacts

Resource	No Build Alternative	Preferred Alternative
Right-of-Way (acres)	0	127
Number of Displacements (Residential/Commercial)	0	4/3[1]
Wetlands (acres)	0	0.59
Streams (linear feet)	0	221
Floodplains (acres)	0	0.7
Woodlands (acres)	0	3.4
Farmland (acres)	0	60
Regulated Materials (number of potential sites)	0	1
Utilities[2] (Number of sites/acres)	0	2/1

[1] Includes Security State Bank (total acquisition), and Casey's General Store, Wendling Quarries (partial acquisitions).
[2] Springville water tower and Black Hills Energy are located on the same parcel.





VIOLA
COUNTY HOME RD
FAIRVIEW RD
CO RD E-34
99TH ST
HODGINS RD
STEGGALLS RD
QUAKER LN
US 151
NW RAMP
NE RAMP
SE LOOP
90 ST
WHITTIER RD
SPRINGVILLE RD
ALDERMAN RD
STONE RD
JORDAN GROVE RD
FREESE RD
7TH ST
5TH ST
DUBUQUE RD
BURR OAKS RD
SPRINGVILLE
CARLTON LN
O'BRIEN LN
DUNLAP RD
TAYLOR RD
GRACEY RD
80 ST
IOWA 1
230 AVE
North Fork Walnut Creek
35TH AVE
RADIO RD
FIELDS DR
29TH AVE
FERNOW RD
PRAIRIE RIDGE AVE
KACENA AVE
MARION
DUBUQUE RD
MARION AIRPORT RD
44TH ST
49TH ST
51ST ST
Squaw Creek
Indian Creek
(Programmed to Pave 2018)
US 151
COLLINS RD SE
SECRIST RD
MARTIN CREEK RD
Marsh Creek
MARAK LN
CORY RD
OXLEY RD
CREEKSIDE RD
Big Creek
CAMBELL RD
SPRINGVILLE RD
PARALTA RD
MARTELLE RD
YEISLEY RD
ELBOW CREE

IOWA DOT

N
W E
S

0 1 2 Miles

Legend

- Proposed Pavement
- Grant Wood Trail
- Springville Connection Trail (Not Programmed)
- Springville North Trail (Not Programmed)

Current and Future Projects

U.S. 151/Springville Rd (Co Rd X-20)
Springville, Linn County, Iowa
Environmental Assessment

Figure 7
11/09/2018

6.0 DISPOSITION

This EA concludes that the proposed project is necessary for safe and efficient travel within the project corridor and that the proposed 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. Alternative selection will occur following completion of the public review period and public hearing.

This EA is being distributed to the agencies and organizations listed. Individuals receiving this EA are not listed for privacy reasons.

Federal Agencies

Federal Aviation Administration

Federal Emergency Management Agency

Federal Railroad Administration

U.S. Army Corps of Engineers – Rock Island District

U.S. Department of Agriculture – Natural Resources Conservation Service

U.S. Environmental Protection Agency – Region 7, National Environmental Policy Act Team

U.S. Fish & Wildlife Service – Rock Island Field Office

State Agencies

Iowa Department of Agriculture and Land Stewardship

Iowa Department of Natural Resources – State Office and Field Office #1 in Manchester

Iowa Economic Development

Iowa Emergency Management Division

State Historical Society of Iowa

Local/Regional Units of Government

East Central Iowa Council of Government

Linn County Board of Supervisors

Linn County Conservation Board

Linn County Engineer

City of Springville – Mayor, City Council

City of Springville – City Clerk

City of Springville – Public Works

Locations Where This Document Is Available for Public Review:

Springville Memorial Library
264 Broadway Street
Springville, IA 52336

Federal Highway Administration
105 – 6th Street
Ames, IA 50010

Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Iowa Department of Transportation – District 6
5455 Kirkwood Blvd.
Cedar Rapids, IA 52404

Online at Iowa DOT: https://iowadot.gov/ole/nepa-compliance/nepa-documents

Potential Permits Required for the Project:

- Department of Army Permit from U.S. Army Corps of Engineers, Rock Island District (Section 404 Wetland Permit)
- Water Quality Certification from Iowa DNR (Section 401 Water Quality Certification)
- Iowa DNR Flood Plain Development Permit
- Iowa DNR National Pollutant Discharge Elimination System General Permit No. 2 for Storm Water Discharge Associated with Construction Activities (NPDES Storm Water Permit)

Unless significant impacts are identified as a result of the public review or at the public hearing, a Finding of No Significant Impact (FONSI) will be prepared for the proposed action as a basis for federal-aid corridor location approval.

The proposed project is included in the 2018-2021 Iowa Highway Program with a total project estimate of $18 million, with $0.9 million for design occurring in 2020.

7.0 COMMENTS AND COORDINATION

7.1 Agency and Tribal 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 C contains agency and tribal comment letters received in response to Iowa DOT's coordination request letters to initiate the NEPA process for the project.

Early agency coordination began on January 4, 2012 with letters sent to the federal, state, and local government agencies listed below. The letters announced the initiation of the NEPA process for the highway project, solicited feedback as it relates to the agencies' relevant areas of expertise, and solicited tribal interest in the project. Table 7-1 below lists the agencies that were contacted through early coordination and the response date, if applicable. Written responses to the early coordination requests are provided in Appendix C.

Table 7-1. Agency Coordination

Agency Type	Agency	Response Date
Federal	Federal Aviation Administration	NA
Federal	Federal Emergency Management Agency	NA
Federal	Federal Highway Administration	NA
Federal	Federal Railroad Administration	NA
Federal	Federal Transit Administration	February 8, 2012
Federal	U.S. Army Corps of Engineers	January 11, 2012
Federal	Natural Resource Conservation Service	NA
Federal	U.S. Department of Housing and Urban Development	January 9, 2012
Federal	U.S Department of Interior	January 9, 2012
Federal	Environmental Protection Agency	January 20, 2018
Federal	U.S. Fish and Wildlife Service	NA
State	Iowa Department of Natural Resources (DNR)– Environmental Services Division	January 31, 2012
State	Iowa DNR – Conservation and Recreation Division	February 22, 2012
State	Iowa DNR – Section 6(f) Funds Coordinator	January 9, 2012
State	Iowa Department of Cultural Affairs – State Historic Preservation Office (SHPO)	January 12, 2012
State	USDA – State Conservationist	NA
State	Iowa Department of Transportation	NA
State	Iowa Department of Agriculture and Land Stewardship	January 11, 2012
Local	Linn County Board of Supervisors	NA
Local	Linn County Engineer	January 6, 2012
Local	Linn County Conservation Board	NA
Local	Springville Planning and Zoning Commission	NA
Local	Springville Public Works	January 18, 2012
Local	Springville Parks Board	NA
Local	Springville Mayor	NA

Also, as part of the early coordination process, Iowa DOT notified Tribes of initiation of this proposed project and requested their feedback. The Tribes contacted are listed below in Table 7-2. The coordination information sent to the Tribes appears in Appendix C.

Table 7-2. Tribal Coordination

Tribe	Date of Coordination	Response Date
Iowa Tribe of Oklahoma	January 25, 2012	NA
Iowa of Kansas-Nebraska	January 25, 2012	NA
Sac & Fox Nation of Missouri	January 25, 2012	NA
Sac & Fox Nation of Mississippi in Iowa	January 25, 2012	NA
Sac & Fox Nation of Oklahoma	January 25, 2012	NA
Otoe-Missouri Tribe	January 25, 2012	NA

7.2 NEPA/404 Merge Consultation

FHWA and Iowa DOT coordinated with the resource agencies using the Iowa DOT Concurrence Point Process. As a part of this process, concurrence packets are developed and provided to the agencies via e-mail for a 30-day review period. The intent of this process is to encourage early participation by the regulatory agencies in an effort to validate decisions made by the transportation agency during the NEPA process and to avoid revisiting those decisions after significant effort has been expended performing detailed analyses and design. The transportation agencies request agency concurrence regarding four points in the NEPA process:

- Concurrence Point 1 – Purpose and Need
- Concurrence Point 2 – Alternatives to be Analyzed
- Concurrence Point 3 – Alternatives to be Carried Forward
- Concurrence Point 4 – Preferred Alternative

For the U.S. 151/Springville Interchange EA, Concurrence Points 1 and 2 were initiated concurrently via email. A concurrence packet was prepared and distributed to representatives from the USCCE, EPA, USFWS and Iowa DNR for their 30-day review. The concurrence packet for Concurrence Point 1 included information on the Purpose and Need for the project, project location map, agency early coordination scoping results, and a summary of Public Information Meeting #1. The concurrence packet for Concurrence Point 2 included a description and exhibit of each Alternative to be Analyzed, and an exhibit and assessment of each alternative's potential social and environmental impacts. Concurrence on Points 1 and 2 was received from all agencies between July 18, 2012 and August 17, 2012.

Concurrence Point 3 was initiated on April 1, 2013 via email. The concurrence packet for Concurrence Point 3 included a project location map, a project constraints map, exhibits of each alternative to be carried forward, and exhibits showing the potential impacts for each alternative. Concurrence was received from all agencies by May 15, 2013.

Concurrence Point 4 will be coordinated with the agencies following the public hearing on the EA and the close of the public comment period. A public hearing on the signed EA is anticipated for the Fall of 2018.

7.3 Public Involvement

7.3.1 Public Information Meetings

The first PIM was held on October 6, 2008 to present the concept of a J-turn design intersection. Few people attended this meeting and there was not much opposition to this concept. On November 19, 2008, Iowa DOT presented the same information to the Springville City Council. Council members expressed concern about the J-turn intersection design concept.

These first meetings were followed by four additional PIMs. The second public information meeting was held on April 21, 2009 with several people in attendance. Many present were strongly opposed to the J-turn design. The third public information meeting was held on January 12, 2010 with 78 people in attendance. At this meeting, attendees suggested alternatives which included lowering the speed limit on U.S. 151, constructing an interchange at the intersection, and installing stop signs and/or flashing lights. Some attendees commented about the perceived inability of farm machinery and semi-trucks to safely negotiate a J-turn.

On October 20, 2010 Iowa DOT held a fourth public information meeting to discuss alternatives other than a J-turn with 61 persons in attendance. Alternatives included reducing speed limits, installing flashing lights or all-way stop signs, modifying or extending turn lanes, and constructing a new interchange.

Approximately 90 people attended the fifth public information meeting held on February 20, 2013 to show the public three interchange alternatives. The alternatives included: a 3-quad loop diamond configuration with backage roads to adjacent businesses, a 3-quad loop diamond configuration without backage roads, and a diamond interchange. Some attendees felt the interchange would be too expensive and did not like the impact to local businesses. Some commented that more and longer turn lanes, lower speed limits and flashing lights would be lower cost solutions.

APPENDIX A:
Streamlined Resource Summary

SOCIOECONOMIC IMPACTS SECTION:

Land Use	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/16/2018
Community Cohesion	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/19/2017
Churches and Schools	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/19/2017
Environmental Justice	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 1/31/2018
Economic	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/30/2018
Joint Development	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	IA DOT NEPA Manager, 12/21/2017
Parklands and Recreational Areas	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 4/17/2018
Bicycle and Pedestrian Facilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	IA DOT NEPA Manager, 6/1/2018
Right-of-Way	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/1/2018
Relocation Potential	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 12/19/2017

SOCIOECONOMIC IMPACTS SECTION Continued:

Construction and Emergency Routes	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/31/2018
Transportation	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 4/10/2018

CULTURAL IMPACTS SECTION:

Historic Sites or Districts	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Report
Completed by and Date:	Consultant, 6/26/2013
Archaeological Sites	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Report
Completed by and Date:	Consultant, 6/26/2013
Cemeteries	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/19/2017

NATURAL ENVIRONMENT IMPACTS SECTION:

Wetlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 10/31/2012
Surface Waters and Water Quality	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 10/31/2012
Wild and Scenic Rivers	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2017
Floodplains	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 4/24/2018
Wildlife and Habitat	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 12/21/2017
Threatened and Endangered Species	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 8/18/2008
Woodlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 10/31/2012
Farmlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 5/16/2018

PHYSICAL IMPACTS SECTION:

Noise	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 3/30/2018
Air Quality	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/19/2017
MSATs	
Evaluation:	This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative. Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOBILE6.2 model forecasts a combined reduction of 72 percent in the total annual emission rate for the priority MSAT from 1999 to 2050 while vehicle-miles of travel are projected to increase by 145 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.
Method of Evaluation:	FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, September 30, 2009
Completed by and Date:	Consultant, 12/19/2017
Energy	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/19/2017
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, 12/17/2012
Visual	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/19/2017
Utilities	
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, 12/19/2017

APPENDIX B:
Maps

Strategic Growth Land Use Map
ECICOG Long Range Trail Plan (excerpts)

City of Springville and Linn County Strategic Growth Plan

Land Use Designations

ECICOG
EAST CENTRAL IOWA COUNCIL OF GOVERNMENTS

City of Springville
PO Box 347
Springville, IA 52336
www.ci.springville.ia.us

Linn County Department of Planning and Development
930 First Street SW
Cedar Rapids, Iowa 52404
(319) 892-5130
www.linncounty.org/planning

NORTH

1 inch equals 0.5 miles

7/22/03 MT

Legend

- Limits of Intergovernmental Agreement
- Proposed Urban Service Area (USA)
- Springville City Limits

Land Use Designations

Proposed Land Use

- Agricultural Area
- Highway Commercial
- Industrial
- Open Space
- Residential
- Rural Residential Development Area

Figure 56: Linn County Trail Mileage

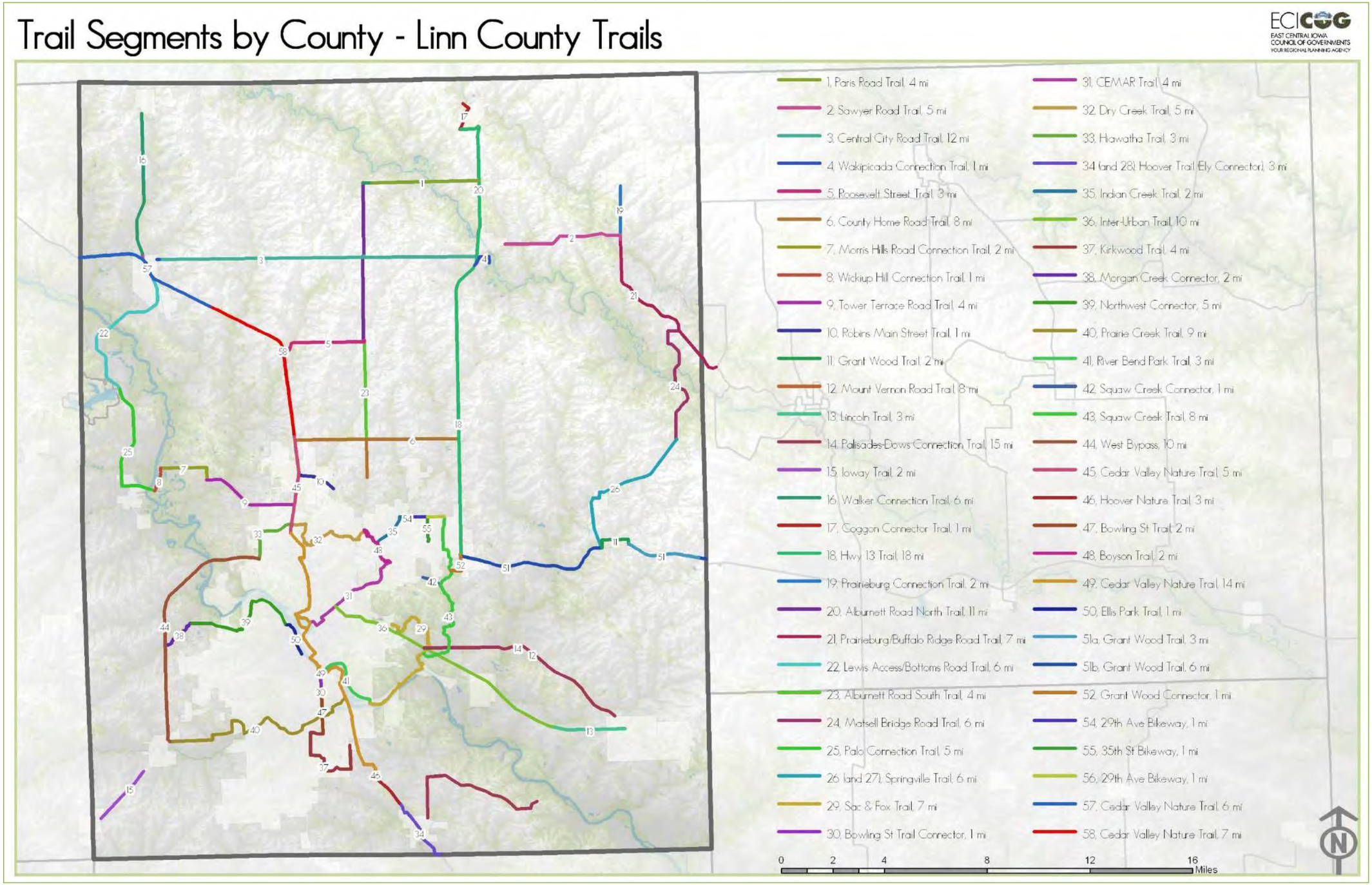
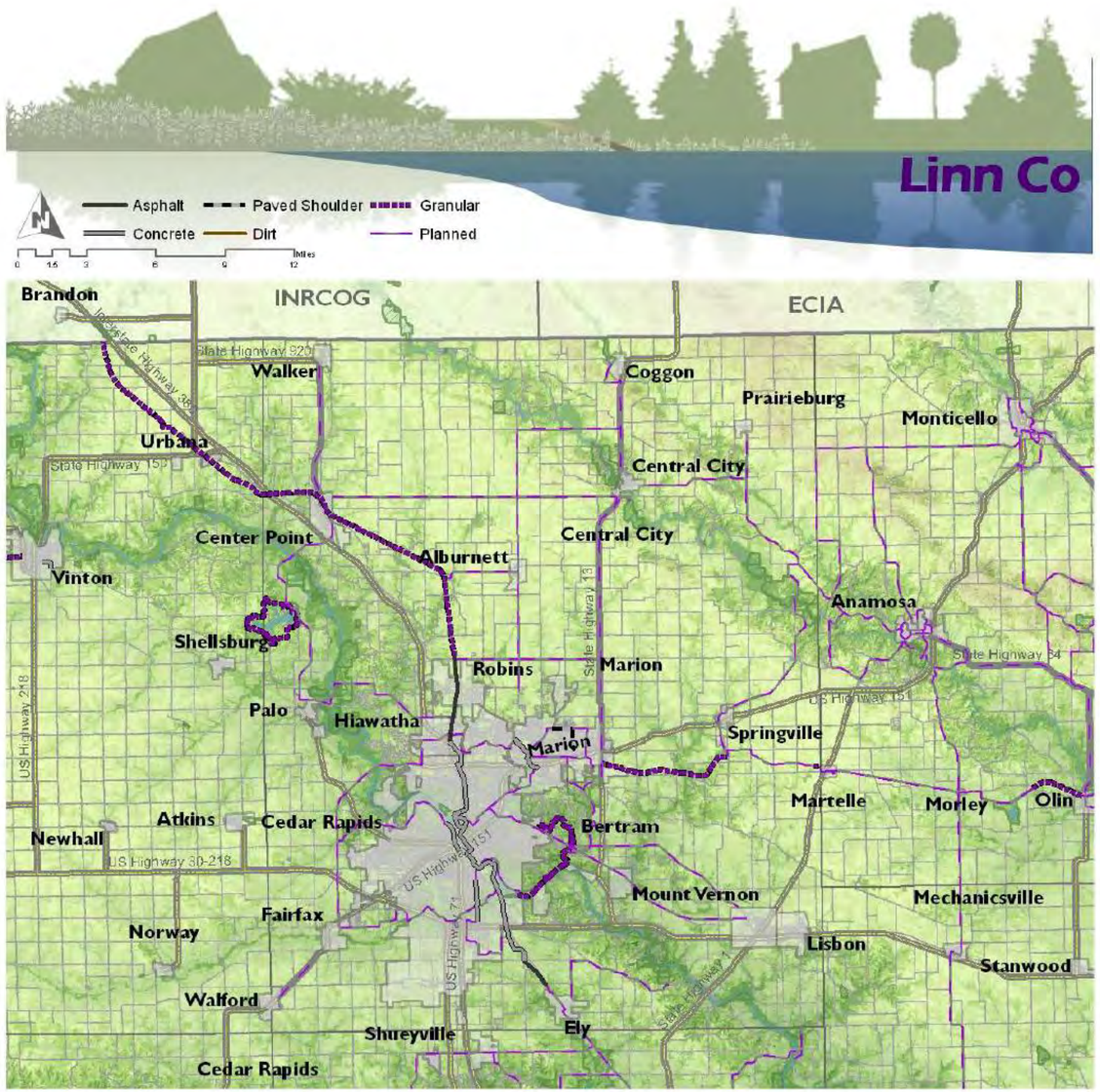


Figure 57: Linn County Trails by Construction Status



Linn County

Outside of the metro areas, Linn County has identified 28 potential trails in the form of vision corridors that amount to 134 miles of trails at an estimated total cost of $40,213,707, or approximately $300,000 per mile. The following trails segments are those identified in the Trail Plan Corridors Summary. As in Johnson County and for similar reasons, the preferred accommodation type in Linn County is the paved, fully separated, shared use trail.

Map Id	Name	Miles	Estimated Cost
1	Paris Road Trail Hwy 13 to Alburnett Road	4.51	$1,353,000
2	Sawyer Road Trail Central City to Prairieburg Rd	4.55	$1,365,000
3	Central City Road Trail Center Point to Hwy 13	12.37	$3,711,000
4	Wakipicada Connection Trail Hwy 13 to Wakipicada Park	1.13	$339,000
5	Roosevelt Street Trail Alburnett to CVNT	3.02	$906,000
6	County Home Road Trail CVNT to Hwy 13	6.41	$1,923,000
7	Morris Hills Road Connection Trail Feather Ridge Rd to Horseshoe Lake Rd, west along Morris Hills Rd to Wickiup Hill Natural Area	2.14	$642,000
8	Wickiup Hill Connection Trail Palo northeast to Chain Lakes Natural Area and Wickiup Hill Natural Area	2.36	$708,000
9	Tower Terrace Road Trail CVNT to Horseshoe Lake Rd	4.80	$1,440,000
10	Robins' Main Street Trail CVNT to Westfield Elementary School	1.34	$402,000
11	Grant Wood Trail Completion of remaining gaps	1.93	$579,000
12	Mt Vernon Rd Trail Indian Creek to Mt Vernon	8.27	$2,481,000
13	Lincoln Trail Along former rail RoW from Smyth Rd to Mt Vernon	2.48	$744,000
14	Palisades-Dows Connection Trail Along Ivanhoe, Prairie School, & Jappa Rds. from Palisades-Dows Preserve to Ely	6.33	$1,899,000

Map Id	Name	Miles	Estimated Cost
15	Ioway Trail Along Hwy. 151 from Walford to Fairfax	2.56	$768,000
16	Walker Connection Trail Along Center Point Rd. from the Cedar Valley Nature Trail to Walker	5.93	$1,779,000
17	Coggon Connector Trail Along Hutchinson Rd. and then RR ROW from Hwy. 13 to Buffalo Creek Park	1.94	$582,000
18	Hwy 13 Trail Along Hwy. 13 from the Grant Wood Trail to Coggon	16.94	$5,082,000
19	Prairieburg Connection Trail Along Prairieburg Rd. from Sawyer Rd. to Prairieburg	1.95	$585,000
20	Alburnette Road North Trail Along Alburnett Rd. north from Alburnett to Paris Rd.	5.62	$1,686,000
21	Prairieburg/Buffalo Ridge Rd Trail Along Prairieburg & Buffalo Ridge Rds. from Sawyer Rd. to the Linn/Jones County line	6.17	$1,851,000
22	Lewis Access/Bottoms Rd Trail Along Lewis Access & Lewis Bottoms Rds. from the Cedar Valley Nature Trail to Pleasant Creek Park	5.75	$1,725,000
23	Alburnett Rd South Trail Along Alburnett Rd. south from Alburnett to the Lowe Park entrance by Oakridge Elementary School	5.10	$1,530,000
24	Matsell Bridge Trail Along Hart, Matsell Park, & Stone City Rds. & Pleasant St. from Buffalo Ridge Rd. to Summer St.	5.39	$1,617,000
25	Palo Connection Trail Pleasant Creek Park south to Palo and the Palo Marsh Natural Area	5.92	$1,776,000
26	Springville North Trail Generally along RR ROW from the Springville Elem. School NE to Stone City Rd, adjacent to Matsell Bridge Natural Area	6.78	$2,034,000
27	Springville Connection Trail Along ROW parallel to Springville Rd. north from the Grant Wood Trail to the Springville Elementary School	1.67	$501,000
28	Hoover Nature Trail Extension of the Hoover Nature Trail south from Ely to the Linn/Johnson County line	0.67	$201,000

APPENDIX C:
Agency and Tribal Coordination

From:	Jason Daniels
To:	Hyler, Randy [DOT]
Subject:	Re: U.S. 151/Co. Rd. X-20 Insersection in Springville - Environmental Assessment Project Number NHX-151-3(130) --3L-57
Date:	Friday, January 20, 2012 7:20:10 AM
Attachments:	pic22760.gif pic09316.gif pic32581.gif

Randy,

I would also recommend looking at the IDNR NWI Remap data layer, which is available by county on DNR's GIS site.

Jason M. Daniels
U.S. Environmental Protection Agency, Region 7
Watershed Support, Wetland and Stream Protection Section
901 N. 5th
Kansas City, KS 66101
913-551-7443
daniels.jason@epa.gov
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From: Joe Cothern/R7/USEPA/US
To: randy.hyler@dot.iowa.gov
Cc: Jason Daniels/R7/USEPA/US@EPA
Date: 01/19/2012 10:21 AM
Subject: U.S. 151/Co. Rd. X-20 Insersection in Springville - Environmental Assessment Project Number NHX-151-3(130) --3L-57

Randy,,

This e-mail responds to your January 4, 2012 letter concerning the subject project.

Below are some screenshots showing portions of the expanded study area that I screened for NWI wetlands, flood zones, and environmentally regulated sites. Jason may have additional input for 404 considerations, but from a NEPA standpoint, I have no concerns with this proposal.

Please let me know if you have any questions about these maps, or if there are issues that EPA can provide assistance.

Best Regards,
Joe

Joseph E. Cothern
NEPA Team Leader
U.S. Environmental Protection Agency
Region 7 - Kansas City

(913) 551-7148
cothern.joe@epa.gov

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2D 3D | Road Aerial Bird's eye | Labels <<

1ST Ave

Fawn Ave

Heather Ln

Obrien Ln

PUBFh

151

151

Dubuque Rd

Obrien Ln

Select Map Contents

- EPA Facilities
  - Superfund
  - Toxic Releases
  - Water Dischargers
  - Air Emissions
  - Hazardous Waste
- Water Monitoring Stations
- Places
- Region 7 EIS
- Elevation_Hillshade
- Region 7 Layers
- NEPAssist EPA Data
- NWI Wetlands
  - Freshwater Emergent
  - Freshwater Forested/Shrub
  - Estuarine and Marine Deepwater
  - Estuarine and Marine
  - Freshwater Pond
  - Lake
  - Riverine
  - Other
- GlobeXplorer Image
- FEMA Flood
- TerraServer
- National Land Cover 2001

100 yds

© 2012 Microsoft Corporation © 2010 NAVTEQ © AND Image courtesy of USGS

http://r7arcims.r7comp.epa.gov/ArcGIS/rest/services/basic_services/phys-geo/MapServer

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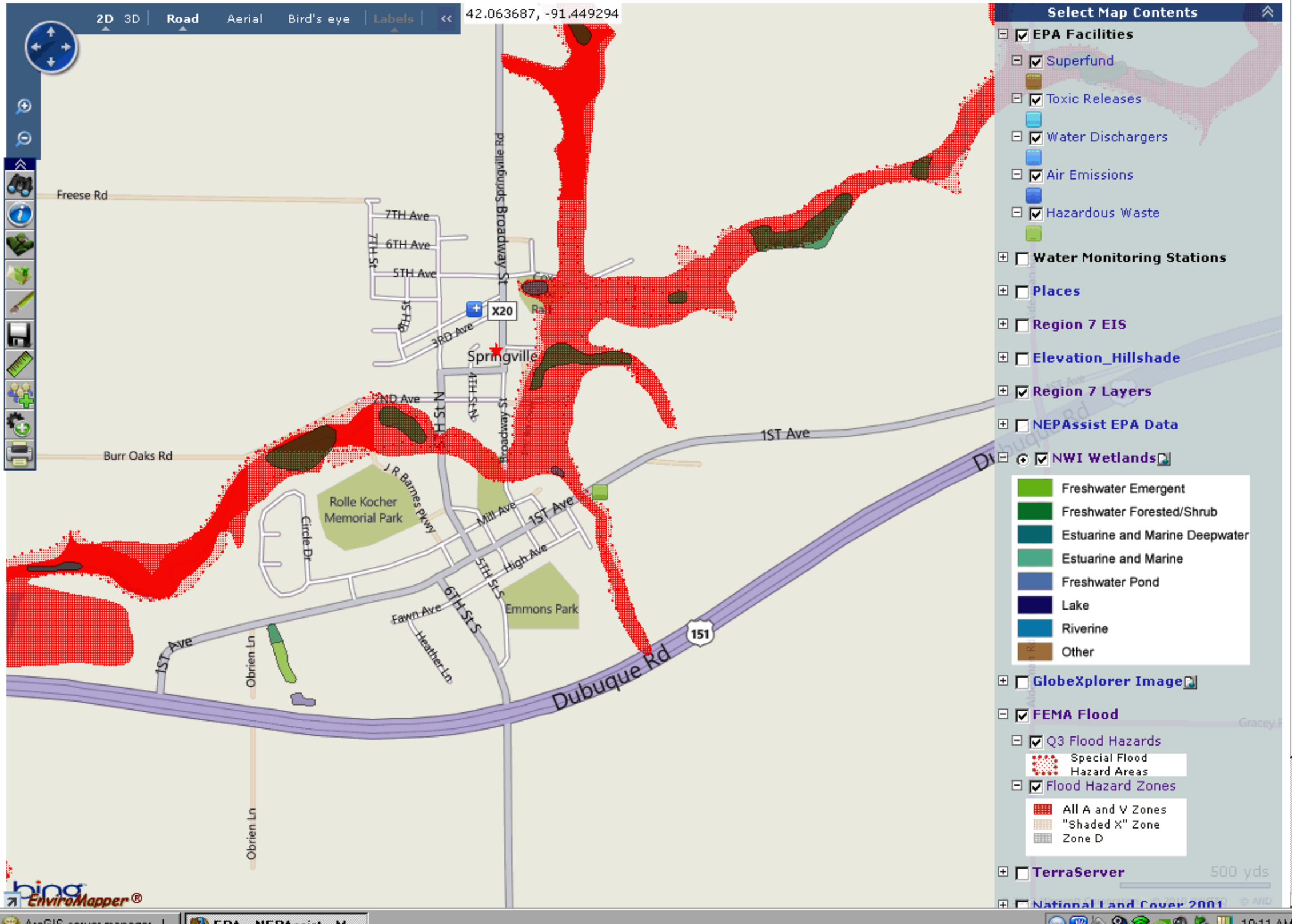

Select Map Contents

- EPA Facilities
  - Superfund
  - Toxic Releases
  - Water Dischargers
  - Air Emissions
  - Hazardous Waste
- Water Monitoring Stations
- Places
- Region 7 EIS
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  - Freshwater Emergent
  - Freshwater Forested/Shrub
  - Estuarine and Marine Deepwater
  - Estuarine and Marine
  - Freshwater Pond
  - Lake
  - Riverine
  - Other
- GlobeXplorer Image
- FEMA Flood
  - Q3 Flood Hazards
    - Special Flood Hazard Areas
  - Flood Hazard Zones
    - All A and V Zones
    - "Shaded X" Zone
    - Zone D
- TerraServer
- National Land Cover 2001

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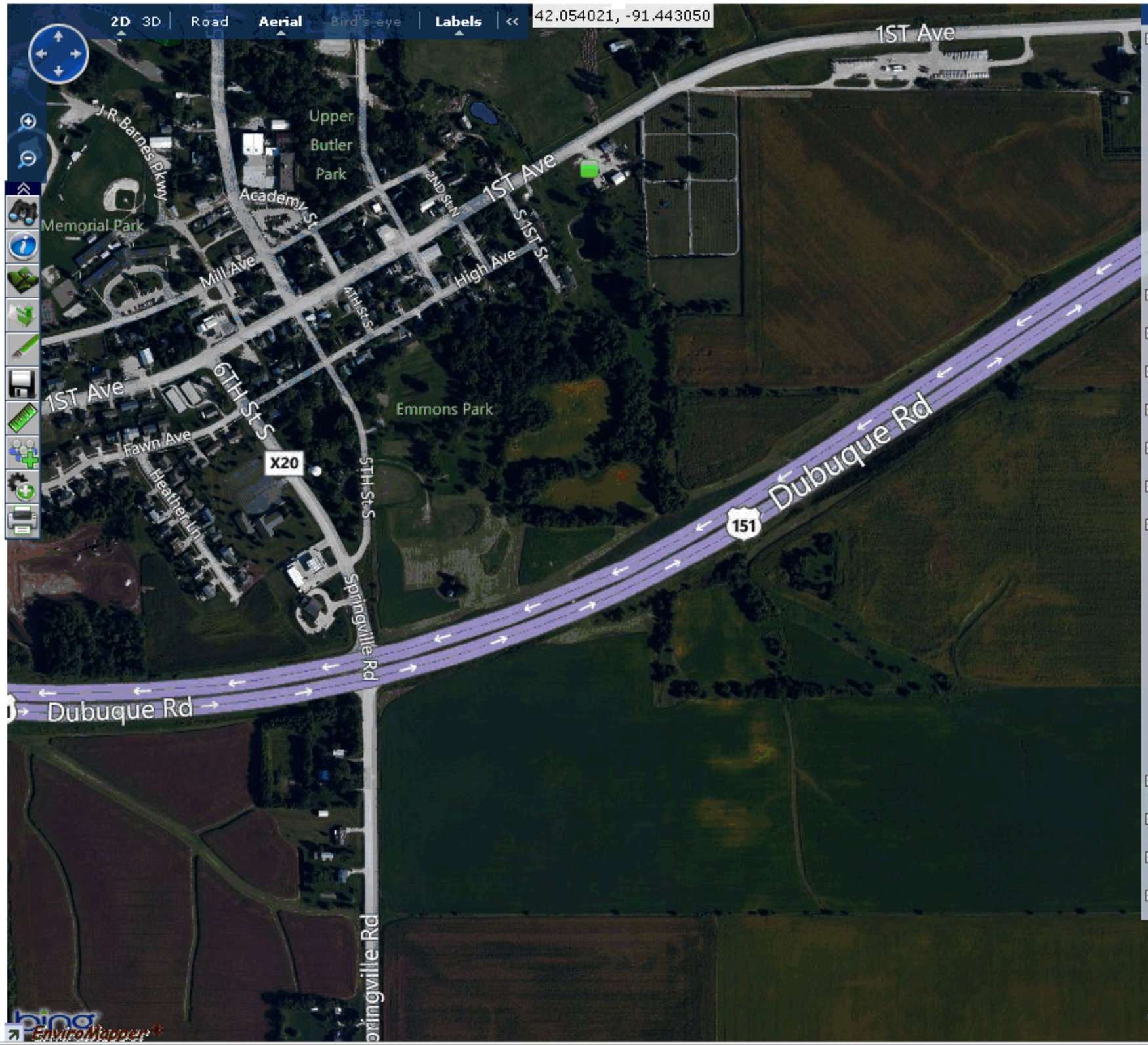


Select Map Contents

- EPA Facilities
  - Superfund
  - Toxic Releases
  - Water Dischargers
  - Air Emissions
  - Hazardous Waste
- Water Monitoring Stations
- Places
- Region 7 EIS
- Elevation_Hillshade
- Region 7 Layers
- NEPAssist EPA Data
- NWI Wetlands
  - Freshwater Emergent
  - Freshwater Forested/Shrub
  - Estuarine and Marine Deepwater
  - Estuarine and Marine
  - Freshwater Pond
  - Lake
  - Riverine
  - Other
- GlobeXplorer Image
- FEMA Flood
- TerraServer
- National Land Cover 2001

Start New Message - IBM Lotu... EPA - NEPAssist - M... 10:15 AM

U.S. Department of Housing and Urban Development
Iowa State Office
Federal Building
210 Walnut Street, Room 239
Des Moines, Iowa 50309-2155

January 9, 2012

Randy Hyler
NEPA Document Manager
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

Subject: U.S. 151/Co. Rd. X-20 Intersection in Springville – Environmental Assessment
PIN Number: 08-57-151-010; Project Number NHSX-151-3(130)—3L-57

Dear Mr. Hyler:

We have received your inquiry to the subject location for Environmental Assessment Documentation and have reviewed such.

We do not contemplate any detrimental effects on any of our projects in the area under review.

Sincerely,

James P. Ryan, Director
Des Moines Multifamily
Program Center

From: Hyler, Randy [DOT]
To: "Stewart, Robert"
Subject: RE: US 151/Co. Rd. X20 Intersection
Date: Tuesday, January 10, 2012 4:09:00 PM
Attachments: Final EC Location Map.pdf
Project Description.doc

Here is the project map and project description. Please let me know if you need anything else.

Thanks,

Randy Hyler
IADOT-NEPA Section

From: Stewart, Robert [mailto:Robert_Stewart@ios.doi.gov]
Sent: Monday, January 09, 2012 11:12 AM
To: Hyler, Randy [DOT]
Subject: US 151/Co. Rd. X20 Intersection

Could you send me an electronic version of the project map so I can distribute electronically to DOOI Bureaus?

Thanks.

Robert F. Stewart
Regional Environmental Officer
Office of Environmental Policy and Compliance
U.S. Department of the Interior
P.O. Box 25007 (D-108)
Denver, CO 80225-0007
Voice: (303) 445-2500
Fax: (303) 445-6320
Cell: (303) 478-3373
Email: robert_f_stewart@ios.doi.gov

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

REPLY TO
ATTENTION OF

January 11, 2012

Mr. Randy Hyler
NEPA Document Manager
Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

Dear Mr. Hyler:

Our office reviewed your letter dated January 9, 2012 concerning the proposed improvement to U.S. Highway 151/County Road x-20 intersection (NHSX-151-3(130)-3L-57) in Springville, Iowa.

It appears your project may impact waters of the United Sates (including wetlands), and may require a Department of the Army Section 404 permit. Additional information will be required before we can determine the need for, and what form of Section 404 authorization will be needed to cover your project. Please submit a complete application for DA authorization as early as possible. Your complete application must include a wetland delineation and a discussion of all impacts to the nation's waters.

Should you have any questions, please contact our Regulatory Branch by letter, or telephone me at 309/794-5367.

Sincerely,

Michael D. Hayes
Project Manager
Regulatory Branch

From: dee.phan@dot.gov
To: Hyler, Randy [DOT]
Subject: US. 151/CO.RD. X-20 Intersection in Springville- EA- Project Number NHSX-151-3(130)- 3L-57
Date: Wednesday, February 08, 2012 11:34:05 AM

Randy,

FTA received your scoping letter regarding the above subject project. We have no jurisdiction or comments on the project. There is no need to send us future documents unless there is major change in the project location or the scope of work.

Thank you.

Dee Phan
Environmental Protection Specialist
FTA Region VII
901 Locust St., Suite 404
Kansas City, MO 64106
Phone: 816-329-3934
Fax: 816-329-3921
Email: Dee.Phan@dot.gov

Fields of Opportunities

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

January 9, 2012

Randy Hyler
IDOT - NEPA Document Manager
800 Lincoln Way
Ames, IA 50010

Dear Mr. Hyler:

This letter is in response to your request comments on the early coordination of potential impacts associated with the US Hwy 151/Co. Road X20 intersection project in Springville, Iowa, as it relates to the Federal Land & Water Conservation Fund (LWCF).

After review of the LWCF projects database, it does not appear that there are any conflicts with the intersection project boundaries. I have also checked for projects in the area that may have been awarded a Resource Enhancement & Protection Fund (REAP) or Recreation Infrastructure Fund grant. Again, I do not find any potential conflicts.

Your early coordination process is very helpful to our office and the National Park Service as we both are responsible for ensuring LWCF projects remain in outdoor recreation, and conversions are kept to a minimum.

If our department or the Park Service finds a potential conflict with the intersection project, we will be in contact with your office right away. If you have any questions, I can be reached at 515-281-3013.

Sincerely,

Kathleen Moench

Kathleen Moench
Budget & Finance Bureau

Enclosures

IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP

Bill Northey, Secretary of Agriculture

January 11, 2012

Randy Hyler
NEPA Document Manager
Office of Location and Environment
800 Lincoln Way
Ames IA 50010

RE: U.S. 151/Co. Rd. X-20 Intersection in Springville – Environmental Assessment
PIN Number: 08-57-151-010; Project Number NHSX-151-3(130)—3L-57

Dear Mr. Hyler:

We appreciate the opportunity to provide input regarding the roadway improvement project in Springville, IA (Linn County).

IDALS-DSC greatest concern is controlling or minimizing soil erosion. Erosion often occurs at significant levels during construction and grading when large areas are exposed and unprotected. We assume you will be following a written erosion control plan to address this concern.

If you have any questions, we ask that you contact the Linn County Soil and Water Conservation District office located in Marion.

John Bruene, District Conservationist, USDA
Natural Resources Conservation Service
Also Contact Mary Hepker, State Secretary, IDALS
3025 -7th Ave.
Marion, IA 52302
319-377-5960

All personnel in the District offices are well informed and stand ready to assist and advise you with problems that can arise from and undertaking of the size and scope that you have outlined in your letter.

Thanks you for the opportunity to provide this information

Sincerely,

Jim Gillespie, Director
Division of Soil Conservation

Cc: Linn SWCD

IOWA DEPARTMENT OF
CULTURAL AFFAIRS
MARY TIFFANY COWNIE, DIRECTOR

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

January 12, 2011

In reply refer to:
R&C#: 120157011

Randy Hyler, NEPA Document Manager
Office of Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: FHWA – LINN COUNTY – NHSX-151-3(130)—3L-57 – PIN NO 08-57-151-010 – PROPOSED US 151 / COUNTY ROAD X-20 INTERSECTION PROJECT – INITIATION OF PREPARATION OF ENVIRONMENTAL ASSESSMENT

Dear Mr. Hyler,

Thank you for notifying our office about the above referenced proposed project. We understand that this project will be a federal undertaking for the Federal Highway Administration (FHWA) and will need to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations, 36 CFR Part 800 (revised, effective August 5, 2004) and with the National Environmental Policy Act (NEPA).

Per our programmatic agreement with your agency and the Federal Highway Administration, our office understands that the appropriate cultural resources investigations will be implemented and conducted to determine whether any historic properties will be affected by the proposed undertaking. If during your scoping process, a cultural resource issue is identified, our agency can provide further technical assistance to your agency.

Our office will be a consulting party to the responsible federal agency and your agency acting on behalf of FHWA in accordance with our Programmatic Agreement as part of the Section 106 consultation process. We request that all correspondence related to this undertaking for Section 106 consultation be provided to our office through the Office of Location and Environment at the Iowa Department of Transportation in accordance with our Programmatic Agreement.

We look forward to consulting with your office and the Federal Highway Administration on the Area of Potential Effect for this proposed project and whether this project will affect any significant historic properties under 36 CFR Part 800.4. We will need the following types of information for our review:

- The Area of Potential Effect (APE) for this project needs to be adequately defined (36 CFR Part 800.16 (d)).

STATE HISTORICAL SOCIETY of IOWA
JEROME THOMPSON
ADMINISTRATOR

IOWA ARTS COUNCIL
MATTHEW HARRIS
ADMINISTRATOR

600 E. LOCUST
DES MOINES, IOWA
50319

T. (515) 281-5111
F. (515) 282-0502

CULTURALAFFAIRS.ORG

- Information on what types of cultural resources are or may be located in the APE (36 CFR Part 800.4).
- The significance of the historic properties in the APE in consideration of the National Register of Historic Places Criteria.
- A determination from the responsible federal agency of the undertaking's effects on historical properties within the APE (36 CFR Part 800.5).

Also, the responsible federal agency will need to identify and contact all potential consulting parties that may have an interest in historic properties within the project APE (36 CFR 36 Part 800.2 (c)).

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

Sincerely,

Douglas W. Jones

Douglas W. Jones, Archaeologist and Review and Compliance Program Manager
and Interim Deputy State Historic Preservation Officer
State Historic Preservation Office
State Historical Society of Iowa
(515) 281-4358

cc: Mike La Pietra, FHWA
Randall Faber, OLE, IDOT, Ames
Matthew Donovan, OLE, IDOT, Ames
Ralph Christian, Historian, State Historical Society of Iowa

Fields of Opportunities

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

January 31, 2012

Mr. Randy Hyler
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: US 151 / Co. Rd. X-20 Intersection in Springville, Linn County – Environmental Assessment
Project Number: NHSX-151-3(130)—3L-57 PIN Number: 08-57-151-010
IDNR Sovereign Lands Tracking Number 6972

Dear Mr. Hyler:

This letter is in response to the letter concerning the above referenced project. Thank you for inviting our comments on the above referenced project.

As you are aware, 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 adequately 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.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization. When detailed plans are available, please complete and submit the joint application form to the Rock Island District Corps of Engineers (1 copy) and Iowa Department of Natural Resources (2 copies) for processing.

If you have any questions, please call me at (515) 281-6615.

Sincerely,

Christine M. Schwake

Christine Schwake
Environmental Specialist
Section 401 Water Quality Certification

Fields of Opportunities

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR
KIM REYNOLDS, LT. GOVERNOR

DEPARTMENT OF NATURAL RESOURCES
ROGER L. LANDE, DIRECTOR

February 22, 2012

IOWA DOT
Attn: RANDY HYLER
800 LINCOLN WAY
AMES IA 50010

RE: Environmental Review for Natural Resources
US 151/Co Rd X-20
Springville, IA
Linn County
Section , Township N, Range W
Various locations

Dear Mr. Hyler,

Thank you for inviting Department comment on the impact of this project. The Department has searched for records of rare species and significant natural communities in the project area and found no site-specific records that would be impacted by this project. However, these 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 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 but does not include 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.

Please reference the following IDNR Environmental Review/Sovereign Land Program tracking number assigned to this project in all future correspondence related to this project: 6972.

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: 6972

cmz

City of Springville
Water Dept.
604 Broadway Street
P.O. Box 347
Springville, Iowa 52336

January 18, 2012

Randy Hyler
NEPA Document Manager
Iowa Department of Transportation

Re: U.S. 151 and County Road x20 or Springville Road Intersection EA / Pin number 08-57-151-010, project number NHSX-151-3-(130)-3L-57

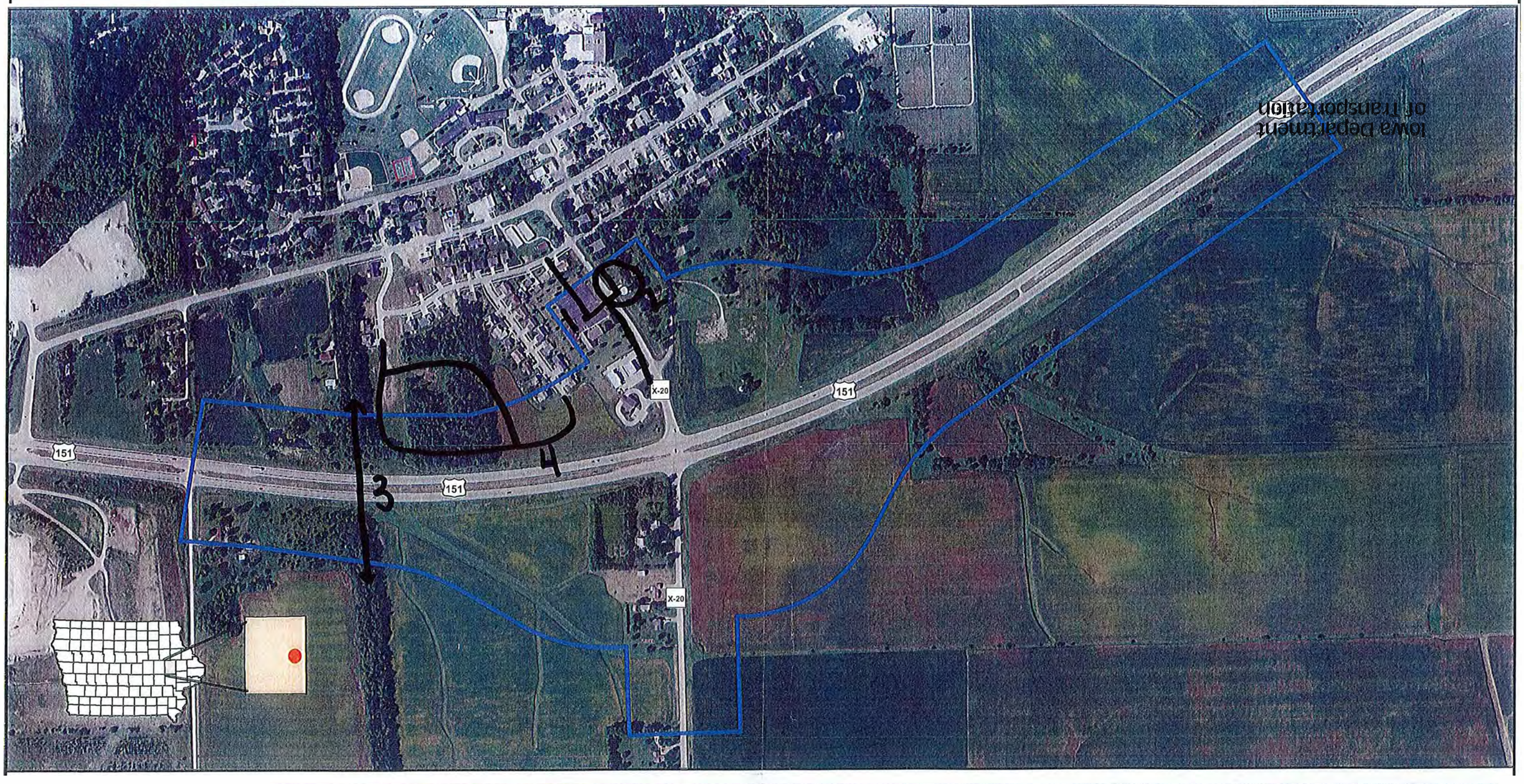
Dear Mr. Hyler,

Per our conversation this month I have talked to the council members and Mayor about this EA. We understand that this is only the first part of the process to get started with the roadway improvements that are so needed at this intersection. I have attached a copy of your map with the infrastructure information that you may want to consider in your long term development plans for the project. If you have any questions about these items please contact me at (319)-521-2591 or at sprmaintdept@netins.net.

The numbered items on the map are as follows:

1. 8 inch water main from our water tower to the water system.
2. Our 250,000 gallon elevated water storage tank. (Water Tower)
3. 10 inch force main from our lift station to the city's storage lagoon.
4. Phase 4 of a housing development that is in progress of phase 3.

Public Works Director
Todd Wyman



Created: December 2011
2010 Aerial

0 0.045 0.09 0.18
Miles

Legend

Study Area

Location Map
U.S. 151 & Co. Rd. X-20 Intersection
Project in Springville

NHSX-151-3(130)--3L-57
Linn County

From:	Gannon, Steve
To:	Hyler, Randy [DOT]
Cc:	Ketels, Brad; Brown, Nichole
Subject:	comments for EA for us 151/linnX20 intersection improvement at Springville, Iowa
Date:	Friday, January 06, 2012 4:58:38 PM

Linn County Secondary Road Department currently controls X20 south of US HIGHWAY 151. The 2009 traffic study provide by the Iowa DOT indicates that X20 carries 490 vehicles per day. Because of improvements made to other routes within our secondary system traffic on X20 has reduced over the years. It is still a Farm-to-Market road and a paved trunk road in our system. We have made significant investment in paving and maintaining this road to provide access to US Highway 151 and the community of Springville, Iowa.

Having been involved with the review of several design alternates, making a safer connection of X20 to US Highway 151 is very important. Keeping the connection of the south leg of the intersection is important to our system. How that connection is completed may be important to a portion of the traffic using X20, but is less important to its effectiveness to our system. The J turn and its variants were acceptable connections from a system standpoint. Even the less convenient right-in/right-out would provide adequate connectivity. The traffic volume from the south leg must be accommodated but does not have to be direct or convenient. We have endorsed options provided in past reviews with the idea of providing traffic a safer intersection at an efficient cost.

Steve Gannon

JUN 2 5 2013

Iowa Department of Transportation

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

April 17, 2013

Ref. No NHSX-151-3(130)- -3L-57
NHSN-151-3(139)- -2R-57
Linn County
Primary

Doug Jones
Review & Compliance
Department of Cultural Affairs
State Historical Society of Iowa
600 East Locust St.
Des Moines, IA 50319

R&C# 120157011

Dear Doug and Ralph:

RE: Phase I Archaeological Investigations- U.S. 151 / County Road X20- Springville, Iowa- Linn County
Conditional No Historic Properties Affected (Revised)

Enclosed for your review and comment is the Phase I Archaeological Investigation for the above-mentioned project. The project proposes a series of road improvements and the development of a possible interchange for U.S.151 and County Road X20, near the City of Springville, Linn County, Iowa.

The area of potential impact examined includes areas north and south of U.S. Highway 151, near the City of Springville. The proposed project widths for the project various corridor widths ranging from 0.10 miles to 0.50 miles. South of U.S. 151, the project area corridor ranges in with from 0.05 miles to 0.10 miles. The total number of acres examined by this archaeological investigation / survey encompassed 333 acres.

Please note that property access was denied to 39.5 acres.

This Phase I archaeological investigation was conducted using an extensive archival search, along with a pedestrian survey of the project areas. Subsurface testing was conducted using auger testing. During this investigation, six archaeological sites were identified.

Five of these sites, Sites 13LN1085, 13LN1086, 13LN1087, 13LN1088, 13LN1090, represent historic archaeological sites. Site 13LN1089 represents prehistoric site represented by an isolated find of a Burlington chert flake.

Please note, one culvert was examined for any potential historic significance as architectural structure. However, this culvert was determined not eligible for the National Register and no further work was recommended for it.

One historic archaeological site, 13LN1087, represents the remains of the early mid-19th Century farmstead, occupied by Joseph Butler, one of the first settlers to the area. The farmstead site, however, has been heavily impacted by previous demolition activies. Due to this, Site 13LN1087 was determined not eligible for the National Register and no further work was recommended for it.

The remaining five archaeological sites were also determined not eligible for the National Register and no further work was recommended for them.

As mentioned, property access was denied to 39.5 acres of the proposed project corridor. As the project corridor is developed, the necessity of examining these 39.5 acres has yet to be determined. However, if the denied parcels / acres are included into the finalized designs, the Iowa DOT will work to secure access to these areas and a supplemental archaeological investigation will be conducted to determine is any archaeological resources are located within them.

Based on the findings of this archaeological investigation, with the understanding that if the denied properties are impacted by the project, a supplemental investigation will be conducted for them, *the determination in regarding to archaeological resources properties is* ***Conditional No Historic Properties Affected.*** If you concur with this determination, please sign the concurrence line below and return this letter.

If you have any questions regarding this project or this investigation, please feel free to contact me at 515-239-1097 or matt.donovan@dot.iowa.gov.

Sincerely,

Matthew J.F. Donovan

Matthew J.F. Donovan, RPA
Office of Location & Environment

MJFD:sm
Enclosure
cc: Dee Ann Newell, OLE- NEPA
Ken Yanna- District 6
Mike Finn- Waspi Valley Archaeology

Concur:

Douglas W. Jones — 6/26/2013

SHPO Archaeologist — Date

Kathryn J. Gourley — June 26, 2013

SHPO Historian — Date

JAN 2 9 2013

Iowa Department of Transportation

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

January 28, 2013

Ref. No NHSX-151-3(130)- -3L-57
NHSN-151-3(139)- -2R-57
Linn County
Primary
R&C# 12015701I

Ralph Christian
Review & Compliance
Department of Cultural Affairs
State Historical Society of Iowa
600 East Locust St.
Des Moines, IA 50319

Dear Ralph:

RE: Phase I Intensive Architectural / Historic Survey- U.S. 151 / County Road X20- Springville, Iowa- Linn County
No Historic Structures Affected

Enclosed for your review and comment is the Phase I Intensive Architectural / Historic Survey for the above-mentioned project. The project proposes a series of road improvements and the development of a possible interchange for U.S.151 and County Road X20, near the City of Springville, Linn County, Iowa.

The area of potential impact examined includes areas north and south of U.S. Highway 151, near the City of Springville. The proposed project widths for the project various corridor widths ranging from 0.10 miles to 0.50 miles. South of U.S. 151, the project area corridor ranges in with from 0.05 miles to 0.10 miles. The total number of acres examined by this architectural / historical survey encompassed 372 acres.

After conducting both archival research and field investigations, none of the properties reviewed by this investigation were determined to be eligible for the National Register of Historic Places. Two cemeteries, the Springville City Cemetery and St. Isidore Cemetery were reviewed by this survey, but neither cemetery is within the project area (though closely adjacent) and neither cemetery will be impacted by the project.

Based on the findings of this investigation / survey, *the determination in regarding to Architectural / Historic properties is* ***No Historic Properties Affected***. If you concur with this determination, please sign the concurrence line below and return this letter.

If you have any questions regarding this project or this investigation, please feel free to contact me at 515-239-1097 or matt.donovan@dot.iowa.gov.

Sincerely,

Matthew J.F. Donovan, RPA
Office of Location & Environment

MJFD:sm
Enclosure
cc: Dee Ann Newell, OLE- NEPA
Ken Yanna- District 6
Abby Glanville- Waspi Valley Archaeology

Concur:

SHPO Historian

2/14/13
Date

Comments:

STATE HISTORICAL SOCIETY of IOWA

A Division of the Iowa Department of Cultural Affairs

Terry E. Branstad, Governor
Kim Reynolds, Lt. Governor

Mary Cownie, Director

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

Date Received: **4/17/2013** End of Review Period: **5/17/2013**

Agency: **FHWA** SHPO R&C #: **120157011**

NHSX-151-3(130)--3L-57 - NHSN-151-3(139)--2R-57 - U.S. 151/CO. RD. X-20 INTERCHANGE PROJECT - INTEN PH I ARCHAEOLOGICAL SURVEY U.S. HIGHWAY 151/CO. RD X20 INTERCHANGE PROJECT, SPRINGVILLE, LINN CO. [WVA # 683] - AGENCY DETERMINATION

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

- The SHPO has received incomplete information or inadequate documentation under 36CFR800 11(a), (d), and (e) **OR**
- The SHPO objects to your definition of the Area of Potential Effect (APE) for the undertaking **OR**
- The SHPO objects to your finding of whether a property is or is not eligible for listing on the National Register of Historic Places **OR**
- The SHPO objects to your finding of the project's effect on a historic property **OR**
- The project is proposed to have a "No Adverse Effect," with or without conditions, and where the SHPO disagrees with the finding **OR**
- The project is determined to have an "Adverse Effect" on a historic property and the federal agency is consulting with SHPO on how to resolve such "Adverse Effects"

Otherwise, at the end of the 30-day period, you may either proceed to the next step in the process based on the finding or determination, or consult with the Advisory Council on Historic Preservation in lieu of the SHPO. In order to determine the next step in the process, please review the appropriate section of the federal regulations [36CFR800.4(d)(1) or the Programmatic Agreement under which your project is being reviewed.

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

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

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

SHPO Review & Compliance Coordinator
(515) 281-8743

APPENDIX D:
Farmland Protection Form

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request May 15, 2018	
Name of Project US 151 Springville Interchange		Federal Agency Involved FHWA	
Proposed Land Use Road Improvement		County and State Linn County, Iowa	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS May 15, 2018	Person Completing Form: Rick Bednarek
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 381070 % 89	Amount of Farmland As Defined in FPPA Acres: 256943 % 60	
Name of Land Evaluation System Used CSR2	Name of State or Local Site Assessment System N/A	Date Land Evaluation Returned by NRCS June 5, 2018	

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	60			
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	126			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	42.3			
B. Total Acres Statewide Important or Local Important Farmland	7.6			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.0194			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	71			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	73			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	15			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	20			
4. Protection Provided By State and Local Government	(20)	20			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	9			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	89	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	73	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	89	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	162	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public/USA_map**,** or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

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

Part III: When 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 or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

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

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

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, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \text{ X } 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.