

INTERSTATE 29 (I-29) SOUTHBRIDGE INTERCHANGE BETWEEN  
INTERCHANGES IN SERGEANT BLUFF AND SALIX

WOODBURY COUNTY, IOWA  
IM-029-6(278)139--13-97

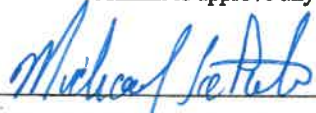
**ENVIRONMENTAL ASSESSMENT**

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

By The

U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
And  
IOWA DEPARTMENT OF TRANSPORTATION  
LOCATION AND ENVIRONMENT BUREAU  
And  
WOODBURY COUNTY, IOWA

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



For the Iowa Division Administrator  
Federal Highway Administration



For the Location and Environment  
Bureau  
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For the County Engineer  
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Date of Approval for Public Availability

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## PREFACE

The Transportation Equity Act of the 21<sup>st</sup> 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.

### Resources Considered

SOCIOECONOMIC	NATURAL ENVIRONMENT
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Use <input type="checkbox"/> <input type="checkbox"/> Community Cohesion <input type="checkbox"/> <input type="checkbox"/> Churches and Schools <input type="checkbox"/> <input type="checkbox"/> Environmental Justice <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Economic <input type="checkbox"/> <input type="checkbox"/> Joint Development <input type="checkbox"/> <input type="checkbox"/> Parklands and Recreational Areas <input type="checkbox"/> <input type="checkbox"/> Bicycle and Pedestrian Facilities <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Right of Way <input type="checkbox"/> <input type="checkbox"/> Relocation Potential <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Construction and Emergency Routes <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Transportation	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Wetlands <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Surface Waters and Water Quality <input type="checkbox"/> <input type="checkbox"/> Wild and Scenic Rivers <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Floodplains <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Wildlife and Habitat <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Threatened and Endangered Species <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Woodlands <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Farmlands
CULTURAL	PHYSICAL
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Historical Sites or Districts <input type="checkbox"/> <input type="checkbox"/> Archaeological Sites <input type="checkbox"/> <input type="checkbox"/> Cemeteries	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Noise <input checked="" type="checkbox"/> <input type="checkbox"/> Air Quality <input checked="" type="checkbox"/> <input type="checkbox"/> Mobile Source Air Toxics (MSATs) <input checked="" type="checkbox"/> <input type="checkbox"/> Energy <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Contaminated & Regulated Materials Sites <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Visual <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Utilities
<input checked="" type="checkbox"/> <b>CONTROVERSY POTENTIAL:</b> Right of way	
<input checked="" type="checkbox"/> <b>Section 4(f):</b> Historic properties are in the study area	

**TABLE OF CONTENTS**

**1.0 Description of the Proposed Action ..... 1**

**2.0 Project History ..... 4**

**3.0 Purpose and Need for Action ..... 7**

3.1. Support Economic Development, Future Land Use, and Growth Objectives ..... 7

3.1.1. Siouxland Interstate Metropolitan Planning Council Long Range Transportation Plans ..... 8

3.1.2. Existing Business Parks North and East of Sioux Gateway Airport..... 8

3.1.3. Existing Business Parks South and Southeast of Sioux Gateway Airport ..... 9

3.1.4. Local Road Improvements ..... 10

3.2. Establish System Linkage ..... 10

3.2.1. Southbridge Business Park Connectivity ..... 10

3.2.2. Sergeant Bluff Industrial Park Connectivity ..... 10

3.2.3. Improved East-West Connectivity ..... 11

**4.0 Alternatives..... 12**

4.1. No Build Alternative..... 12

4.2. Alternatives Considered but Dismissed ..... 14

4.2.1. Alternative 1 ..... 14

4.2.2. Alternative 3 ..... 14

4.2.3. Alternative 4 ..... 15

4.2.4. Alternative 5 ..... 15

4.2.5. Alternative 6 ..... 16

4.3. Proposed Alternative – Alternative 2..... 16

4.4. Summary of Alternatives Comparison..... 17

4.5. Final Alternative Selection ..... 17

**5.0 Environmental Analysis ..... 20**

5.1. Socioeconomic Impacts ..... 20

5.1.1. Land Use ..... 20

5.1.2. Economics..... 21

5.1.3. Right of Way..... 23

5.1.4. Construction and Emergency Routes..... 23

5.1.5. Transportation ..... 24

5.2. Cultural Impacts..... 26

5.2.1. Historical Sites or Districts ..... 26

5.3.	Natural Environment Impacts .....	26
5.3.1.	Wetlands .....	26
5.3.2.	Surface Waters and Water Quality.....	27
5.3.3.	Floodplains.....	29
5.3.4.	Wildlife and Habitat.....	30
5.3.5.	Threatened and Endangered Species.....	31
5.3.6.	Woodlands .....	35
5.3.7.	Farmlands.....	35
5.4.	Physical Environment Impacts .....	36
5.4.1.	Noise .....	36
5.4.2.	Visual .....	38
5.4.3.	Contaminated and Regulated Materials Sites .....	39
5.4.4.	Utilities.....	40
5.5.	Cumulative Impacts .....	41
5.6.	Streamlined Resource Summary .....	43
<b>6.0</b>	<b>Disposition .....</b>	<b>45</b>
<b>7.0</b>	<b>Comments and Coordination.....</b>	<b>47</b>
7.1.	Agency and Tribal Coordination .....	47
7.2.	Public Involvement.....	49
<b>8.0</b>	<b>References.....</b>	<b>50</b>

Appendix A. Streamlined Resource Table

Appendix B. Agency and Tribal Coordination

### LIST OF FIGURES

Figure 1.	Project Location.....	2
Figure 2.	Project Details .....	3
Figure 3.	Recent and Planned Road Improvements .....	6
Figure 4.	Alternative Corridors .....	13
Figure 5.	Proposed Alternative Alignment and Impact Corridor.....	19
Figure 6.	Environmental Constraints .....	44

### LIST OF TABLES



---

Table 1. Planned and Recently Completed Roadway Projects .....	5
Table 2. Comparison of Build Alternative Impacts .....	18
Table 3. Wetlands in the Study Area .....	28
Table 4. Threatened, Endangered, and Species of Concern in Woodbury County, Iowa.....	32
Table 5. Noise Abatement Criteria .....	37
Table 6. Summary of Modeled Receptors .....	37
Table 7. Summary of Noise Results.....	38
Table 8. Summary of Impacts .....	43
Table 9. Agency Coordination .....	47

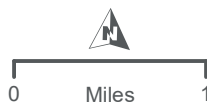
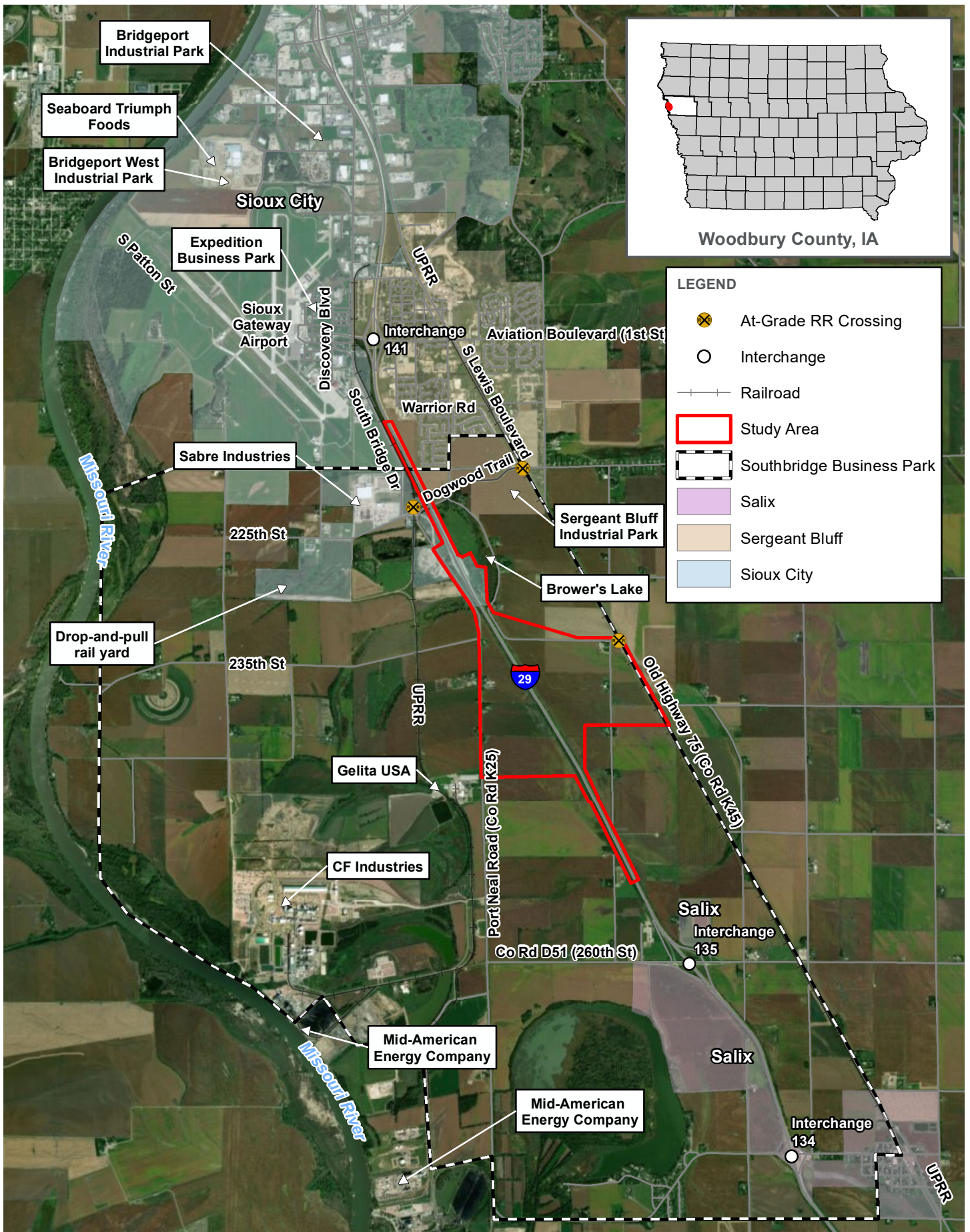
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## 1.0 Description of the Proposed Action

Woodbury County, Iowa, in coordination with the Iowa Department of Transportation (Iowa DOT) and the Federal Highway Administration (FHWA), is proposing to construct an interchange on Interstate 29 (I-29). The project would involve constructing a new interchange between the existing interchanges at Sergeant Bluff, Iowa, to the north (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141) and Port Neal Landing in Salix, Iowa, to the south (County Road D51/260<sup>th</sup> Street, Interchange 135), as shown in Figure 1. The new interchange would add access to I-29 from 235<sup>th</sup> Street, both east and west of I-29. The existing 235<sup>th</sup> Street, which currently does not cross I-29, would be realigned from approximately 0.9 mile west of Port Neal Road west of I-29 and to a point approximately 0.25 mile west of County Road K-45 east of I-29. Banner Road north of 235<sup>th</sup> Street would also be realigned. The Preferred Alternative is a traditional diamond interchange.

The study area, shown in Figure 1, is located along I-29, beginning approximately 0.5 mile south of the Sergeant Bluff interchange and ending approximately 0.7 mile north of the Port Neal Landing interchange. The study area extends west to east from approximately Port Neal Road to Old Highway 75. Connections to existing 235<sup>th</sup> Street and ramp tie-ins are proposed in the project. In the northern portion of the study area, the proposed improvements would be located in a narrow portion of land along I-29 within the city limits of Sergeant Bluff and a small area within the city limits of Sioux City, Iowa. In the middle and southern portions of the study area, the proposed improvements would be located within unincorporated land in Woodbury County. Sergeant Bluff is east and northeast of the study area, Sioux City is north and west of the study area, and Salix is south of the study area, as shown in Figure 1. Figure 2 shows a more detailed view of the northern portion of the study area.

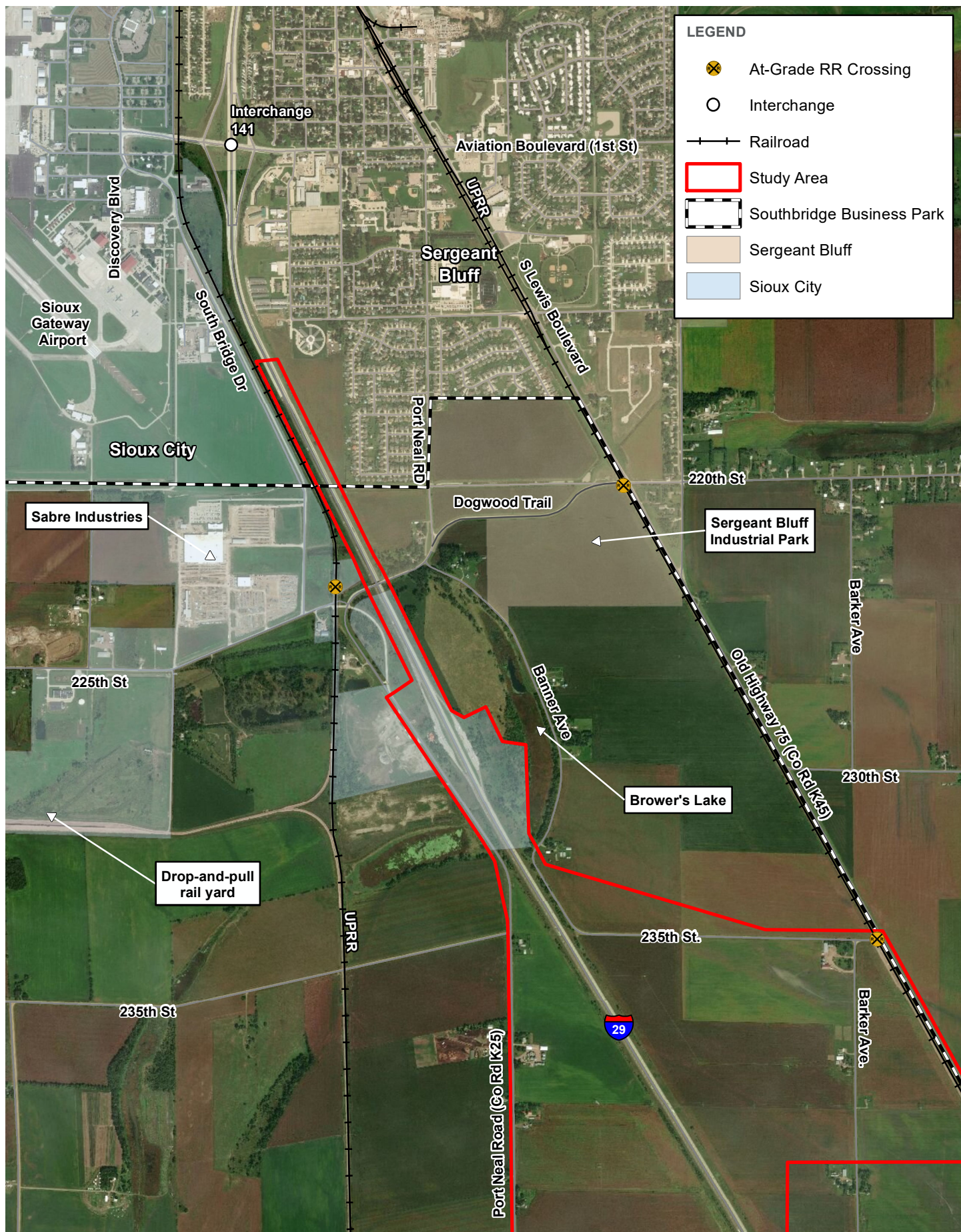
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**PROJECT LOCATION**  
**SOUTHBRIDGE INTERCHANGE**  
**ENVIRONMENTAL ASSESSMENT**

**FIGURE 1**





**LEGEND**

- At-Grade RR Crossing
- Interchange
- Railroad
- Study Area
- Southbridge Business Park
- Sergeant Bluff
- Sioux City



**PROJECT DETAILS**  
**SOUTHBRIDGE INTERCHANGE**  
**ENVIRONMENTAL ASSESSMENT**  
**FIGURE 2**

## 2.0 Project History

The proposed I-29 interchange has been part of the long-term planning vision for the City of Sioux City and the Siouxland Interstate Metropolitan Planning Council (SIMPCO) since 2005. A proposed interchange was shown in Sioux City's 2005 *Comprehensive Plan* (City of Sioux City n.d.). In addition, SIMPCO approved an amendment to its Long Range Transportation Plan (LRTP) in November 2005 in its *Update 2025 to the Transportation Plan for the Sioux City Metropolitan Area Iowa-Nebraska-South Dakota* to include a new interchange on I-29 near mile marker 140. Funding for the interchange was not programmed into the 2025 LRTP at that time (SIMPCO 2005).

The proposed I-29 interchange would support planned urban and industrial development in the southern portion of the Sioux City metropolitan area. Urban development south of the Sioux Gateway Airport has been part of Sioux City's and Woodbury County's long-term planning visions since 2005, as noted in Sioux City's 2005 *Comprehensive Plan* and Woodbury County's *Planning for 2025: The Woodbury County General Development Plan* (Woodbury County 2005). This vision was carried forward into Woodbury County's *Envision 2050* plan, published in 2014. Near the proposed I-29 interchange, the *Envision 2050* plan calls for industrial, commercial, and rural residential land uses. Development of the Southbridge Business Park, located south of Sioux Gateway Airport, is fostered in part by the efforts of Sioux City and Woodbury County to develop infrastructure and market the area to bring heavier industries and better paying jobs to the area (Woodbury County 2014). In addition, the City of Sergeant Bluff recently developed the Sergeant Bluff Industrial Park along Dogwood Trail and County Road K25 between Banner Avenue and Old Highway 75 (County Road K45) at the southern edge of Sergeant Bluff (City of Sergeant Bluff n.d.).

The proposed I-29 interchange is in an area that has been historically rural, but this area has been developing into an industrial area over the past 50 years and has growing transportation system improvement needs. Development in Sioux City has been expanding south as the industrial parks surrounding Sioux Gateway Airport have developed. The City of Sioux City extended its corporate boundary south of Sioux Gateway Airport in 2011 and began constructing utilities (electricity, water, and communications), a rail yard, and roads in the Southbridge Business Park. Since 2011, development has been expanding south into rural areas. Industrial developments and a power plant are just west of the proposed I-29 interchange study area, and the newly developed Sergeant Bluff Industrial Park is approximately 0.2 mile east of the study area at the southern edge of Sergeant Bluff.

While the I-29 interchange proposed by Woodbury County would function independently, this project is a part of a larger roadway network as outlined in SIMPCO's 2040 LRTP (SIMPCO 2016). This roadway network, listed in Table 1 and shown in Figure 3, is what Iowa DOT, Woodbury County, and the City of Sioux City ultimately plan to construct in the area in the future. Some of these roadways have been constructed, and others are in various stages of the planning and design process.

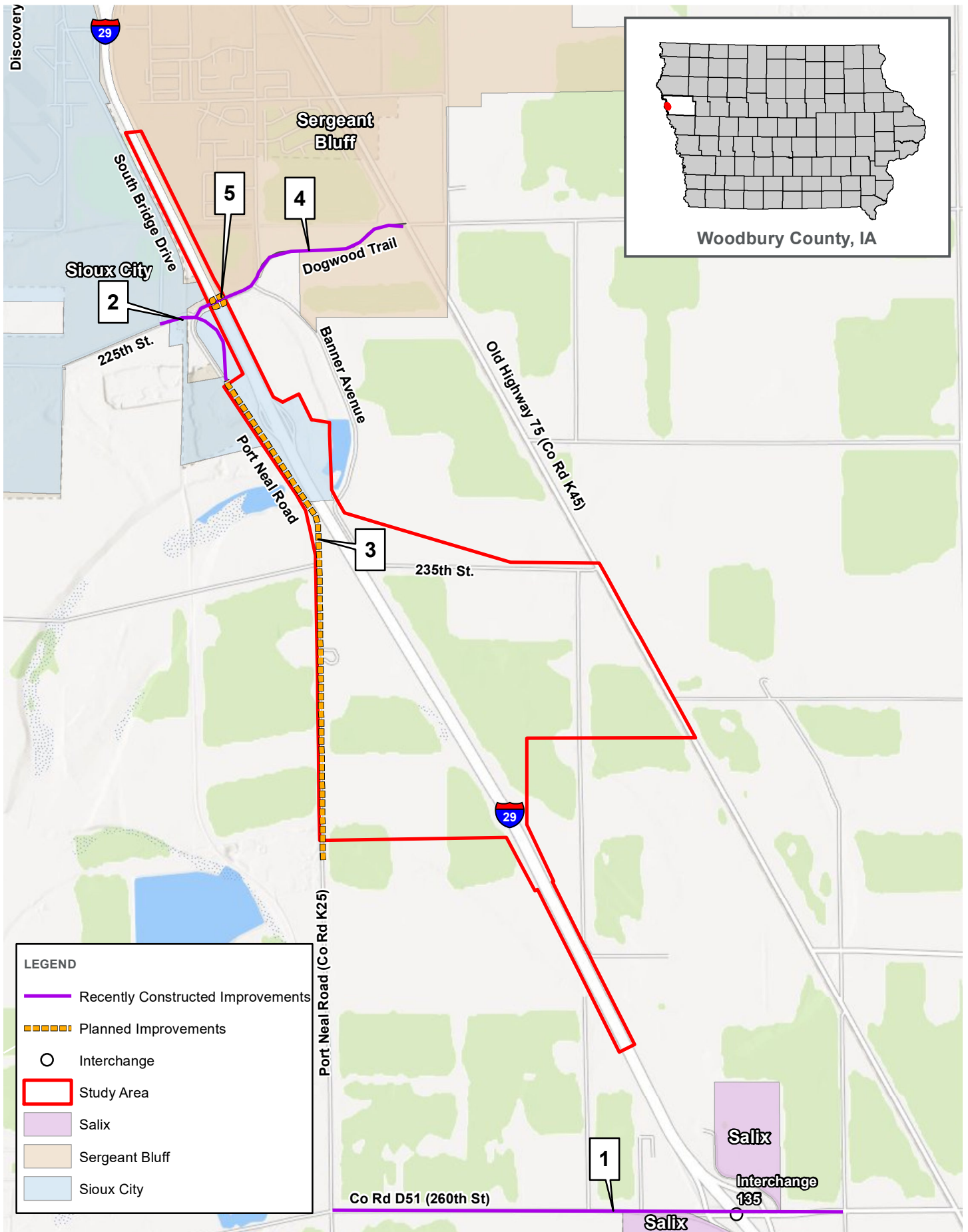
Federal, state, and local agencies and tribes were contacted as part of coordination for this project. Several agencies responded to the project notification and request for input. More information about agency coordination for the project is included in Section 7.0 – Comments and Coordination.

A public information meeting was held on Thursday, December 15, 2016, at the Sergeant Bluff Community Center, 903 Topaz Drive. The purpose of the meeting was to discuss and receive public input on the development of the location study and environmental studies for the project. More information about the public involvement for the project is included in Section 7.0 – Comments and Coordination.

**Table 1. Planned and Recently Completed Roadway Projects**

Map ID (Figure 3)	Project	Location	Status
1	County Road D51/ 260 <sup>th</sup> Street	Port Neal Road to I-29	Construction completed in 2015
2	Intersection of 225 <sup>th</sup> Street and Port Neal Road	225 <sup>th</sup> Street and Port Neal Road between South Bridge Drive and I-29	Construction completed in 2017
3	Port Neal Road (County Road K25)	From relocated Port Neal Road south of 225 <sup>th</sup> Street to 1.8 miles south	Construction anticipated in 2022
4	Dogwood Trail	Banner Avenue to Old Highway 75 (County Road K45)	Construction completed in 2016
5	Port Neal Road (County Road K25)	Bridge over I-29	Construction anticipated in 2022





\*\*Project number corresponds to Table 1 in the EA



**RECENT AND PLANNED ROAD IMPROVEMENTS**  
**SOUTHBRIDGE INTERCHANGE**  
**ENVIRONMENTAL ASSESSMENT**

**FIGURE 3**

### 3.0 Purpose and Need for Action

The purpose of the project is to support economic development and improve the east-west connectivity in the study area with new interstate system access in the corridor between the existing I-29 Sergeant Bluff interchange (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141) and Port Neal Landing interchange (County Road D51/260<sup>th</sup> Street, Interchange 135), as shown previously in Figure 1.

The needs for action are as follows:

- Support economic development, future land use, and growth objectives
- Establish system linkage

#### 3.1. Support Economic Development, Future Land Use, and Growth Objectives

An additional I-29 interchange between mile markers 141 and 135 is needed to support the projected economic development in southern Sioux City and between Sioux City and Salix. Economic development is occurring, and is projected to continue, in response to economic incentives and infrastructure development by Woodbury County, the City of Sioux City, and the City of Sergeant Bluff in accordance with land use planning and growth objectives. The following planning information demonstrates land use planning and growth objectives of Woodbury County and Sioux City, which are combined to spur economic development in the study area.

Land use plans developed by Woodbury County in 2005 and 2014, and Sioux City's *2005 Comprehensive Plan*, indicate planned development in the area south of Sioux Gateway Airport. Woodbury County and the City of Sioux City are developing industrial and commercial areas south of Sioux Gateway Airport to Salix. The objective of the planned development is to grow economic development and employment opportunities by attracting industry to the area (Woodbury County 2005, 2014; City of Sioux City n.d.).

Woodbury County's future land use map, adopted November 22, 2005, in its *Planning for 2025: The Woodbury County General Development Plan*, illustrated Woodbury County's plan for growth in the area north and south of Sioux Gateway Airport and west of I-29. In addition, Sioux City's *2005 Comprehensive Plan* future land use map indicated primarily industrial zoning in generally the same area. The exception was an area of projected mixed-use regional land use surrounding a projected future I-29 interchange in the vicinity of 235<sup>th</sup> Street (City of Sioux City n.d.). Woodbury County's *Envision 2050* plan focused on development in the Southbridge area from the south side of Sioux Gateway Airport to approximately 260<sup>th</sup> Street, and from I-29 west to the Missouri River (Woodbury County 2014). The *Envision 2050* plan showed planned industrial, commercial, residential, and greenspace for the study area.

Sioux City has developed several business and industrial parks in the vicinity of Sioux Gateway Airport (Sioux City Economic Development Department n.d.). As discussed in Section 3.1.3, the City of Sioux City and the City of Sergeant Bluff have constructed infrastructure in Southbridge Business Park and Sergeant Bluff Industrial Park, respectively, to attract businesses to these areas to generate employment (KTIV 2016). This mixed development would generate additional commuter traffic from local traffic and from the surrounding communities. Heavy truck traffic associated with transporting supplies and finished products would also increase.

### 3.1.1. Siouxland Interstate Metropolitan Planning Council Long Range Transportation Plans

In marketing Sioux City and surrounding communities for economic development, the Sioux City Chamber of Commerce has emphasized the excellent transportation connectivity (including air, rail, highway, water, and pipeline networks) of the Sioux City area (Siouxland Chamber of Commerce n.d.). Improvements to I-29 north of the study area are anticipated to be completed in 2019, and improvements to US Highway 20 were completed in 2018 (Iowa DOT n.d.).

SIMPCO prepares a regional transportation plan for Cherokee, Ida, Monona, Plymouth, and Woodbury Counties in Iowa every 5 years. The plan includes a 20-year forecast of transportation facilities and service needs. The need for an I-29 interchange in the vicinity of 235<sup>th</sup> Street (mile marker 138) was first identified in 2005 in SIMPCO's 2025 LRTP. This was a response to projected employment increases greater than 1,250 jobs in the vicinity of the Sioux Gateway Airport and to support anticipated economic development south of Sioux Gateway Airport (SIMPCO 2006). Constructing an I-29 interchange in the vicinity of mile marker 138 was named as a priority project in both the 2030 and 2035 LRTPs (SIMPCO 2017) based on the projected growth in employment and economic development.

Future planned industrial growth south and southeast of the Sioux Gateway Airport would lead to increased traffic in the study area. SIMPCO's 2040 LRTP projects a net increase of 6,227 new jobs between 2010 and 2040 in the Southbridge Business Park, Sergeant Bluff Industrial Park, and Bridgeport West Industrial Park between Sergeant Bluff and Salix (SIMPCO 2016). The July 13, 2017, amendment to the 2040 LRTP projects an additional 6,915 jobs in Sioux City compared to the original number noted in the 2040 LRTP as it was approved in 2016. Most of these new jobs are projected to be located in the Bridgeport Industrial Park and Southbridge Business Park (SIMPCO 2017). Sergeant Bluff is anticipated to grow to the south (east of I-29), adding new residential and industrial areas and a school. The July 13, 2017, amendment to the 2040 LRTP projects an additional 922 housing units in Sergeant Bluff by 2040 (SIMPCO 2017).

### 3.1.2. Existing Business Parks North and East of Sioux Gateway Airport

The following existing business parks north and east of Sioux Gateway Airport are fully developed or reaching full development (see Figure 1):

- **Bridgeport Industrial Park** (350 acres, north of Sioux Gateway Airport between I-29 and the Missouri River). Development in the Bridgeport Industrial Park began in the late 1960s and is complete (Beacon n.d.).
- **Bridgeport West Industrial Park** (259 acres, northwest of Sioux Gateway Airport near the Missouri River). Bridgeport West Industrial Park is approximately 50 percent developed (Beacon n.d.). One of the facilities in Bridgeport West Industrial Park, the Seaboard Triumph Foods pork processing plant that opened in September 2017, is indicative of the growth in the business parks near Sioux Gateway Airport. The Seaboard Triumph Foods pork processing plant is currently one of the largest employers in the Sioux City area with 1,800 workers. The plant is hiring for a second shift that will add approximately 600 jobs (Seaboard Triumph Foods 2018).
- **Expedition Business Park** (100 acres, extending northwest from I-29 and 1<sup>st</sup> Street/Aviation Boulevard to Sioux Gateway Airport). Development in this business park began in 1998, and approximately 75 percent of the land in the Expedition Business Park is developed or sold (Beacon n.d.). Infrastructure (roads and utilities) is in place for undeveloped lots (Sioux City Economic Development Department n.d.).

Employment in the Bridgeport Industrial Park, Bridgeport West Industrial Park, and Expedition Business Park has grown substantially, and this growth is forecast to continue through 2040. Traffic on South Patton Street, the main route from the Bridgeport Industrial Park and Bridgeport West Industrial Park to the adjacent I-29 interchange at mile marker 143, is projected to exceed capacity by 2040 (SIMPCO 2017). As South Patton Street and the I-29 interchange at mile marker 143 become congested, additional traffic is projected at the I-29 interchange at Sergeant Bluff (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141). As the interchanges at Interchanges 143 and 141 become congested, additional interstate access would be needed between the Sergeant Bluff interchange (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141) and the Port Neal Landing interchange (County Road D51/260<sup>th</sup> Street, Interchange 135) to take pressure off of Interchanges 143 and 141 from area businesses.

### 3.1.3. Existing Business Parks South and Southeast of Sioux Gateway Airport

The following existing business parks south and southeast of Sioux Gateway Airport are developing (see Figure 1):

- **Southbridge Business Park** (10,000 acres, south of Sioux Gateway Airport, between the Missouri River and I-29, south to approximately 260<sup>th</sup> Street). The City of Sioux City has been developing the Southbridge Business Park since 2011 as a premier location for large-scale industrial and commercial projects. Located on the southern edge of Sioux City, the business park encompasses nearly 10,000 acres of flat, developable land. An extensive planning effort by the City of Sioux City and its partners resulted in the annexation of approximately 400 acres for development. More than \$50 million has been invested to assist with the construction of vital utility infrastructure resources, including a new water treatment plant, an electrical substation, and newly paved streets (Sioux City Economic Development Department n.d.).

Development since 2011 includes the \$28 million Sabre Industries expansion, located north of 225<sup>th</sup> Street and west of I-29, and CF Industries expansion, west of Port Neal Road and 260<sup>th</sup> Street. CF Industries completed construction of a new ammonia plant in 2016 to expand operations (CF Industries 2016). A Mid-American Energy Company power plant is located southwest of Port Neal Road and 260<sup>th</sup> Street. Gelita USA is located west of Port Neal Road and north of 260<sup>th</sup> Street. Several other smaller businesses have also developed in Southbridge Business Park. A drop-and-pull rail yard was constructed on the Union Pacific Railroad spur line west of Port Neal Road and south of 225<sup>th</sup> Street; this was built by the City of Sioux City in 2016 to enhance rail service and attract new industry to the Southbridge Business Park (KTIV 2016). Approximately 75 percent of the land within the Southbridge Business Park remains undeveloped (Beacon n.d.).

- **Sergeant Bluff Industrial Park** (117 acres, east of Port Neal Road and I-29, west of Old Highway 75, and mostly south of Dogwood Trail). Development of the Sergeant Bluff Industrial Park is anticipated to generate 170 jobs. Utilities are in place, but the site remains undeveloped (City of Sergeant Bluff n.d.; Beacon n.d.).

As Southbridge Business Park and Sergeant Bluff Industrial Park continue to develop, traffic will continue to increase at I-29 interchanges at Sergeant Bluff (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141) and Port Neal Landing (County Road D51/260<sup>th</sup> Street, Interchange 135), and on Port Neal Road (County Road K-25) between industrial and residential areas.

### **3.1.4. Local Road Improvements**

In 2015, due to the new CF Industries plant expansion in the southern Southbridge Business Park, Woodbury County improved County Road D51/260<sup>th</sup> Street from Port Neal Road to the I-29 interchange at Interchange 135. Woodbury County continues to improve the road network in this area to support the increasing traffic flow related to the CF Industries plant expansion. As the three business and industrial parks north and east of the Sioux Gateway Airport (Bridgeport Industrial Park, Bridgeport West Industrial Park, and Expedition Business Park) continue developing to capacity, the City of Sioux City is planning road improvements and studying mass transit options to alleviate congestion in this area (SIMPCO 2016). Currently, these roads connect to 1<sup>st</sup> Street/Aviation Boulevard to access I-29 at Interchange 141. These local road improvements are designed to improve circulation within business and industrial parks and access to existing I-29 interchanges. These improvements do not add capacity at the existing interchanges or add any new access to I-29.

### **3.2. Establish System Linkage**

Existing access to I-29 in the vicinity of the study area is limited to Interchange 141 in Sergeant Bluff and Interchange 135 in Salix. Local roads in and near the study area are disjointed and provide a circuitous route for traffic to access I-29. The proposed interchange would provide a connecting link between I-29 and existing business and industrial parks, and would provide improved east-west connectivity across I-29.

#### **3.2.1. Southbridge Business Park Connectivity**

Connectivity between I-29 and the Southbridge Business Park is needed to improve travel distances and provide direct access to I-29. Currently, the only access to I-29 in the study area is at Interchange 141 in Sergeant Bluff or Interchange 135 in Salix. Existing access to northbound I-29 from the Southbridge Business Park requires traveling a distance of approximately 3.4 miles, and much of this route is on two-lane roads with a speed limit of 45 miles per hour (mph). The route includes two at-grade railroad crossings, a two-way stop-sign-controlled intersection, several intersections with sharp turns, and a busy I-29 interchange. Existing access to southbound I-29 from the Southbridge Business Park, a distance of approximately 4.0 miles, is via Port Neal Road and County Road D51/260<sup>th</sup> Street, which are both two-lane roads (see Figures 1 and 2). This route has a stop sign at the intersection of Port Neal Road with County Road D51/260<sup>th</sup> Street, but no railroads or sharp curves. Interstate access at Interchange 141 in Sergeant Bluff is used by traffic to and from Southbridge Business Park, Bridgeport Industrial Park, Bridgeport West Industrial Park, and Expedition Business Park. Interchange 135 in Salix is used by CF Industries, Gelita USA, the Mid-American Energy Company power plants, and several other smaller businesses within and south of the Southbridge Business Park.

#### **3.2.2. Sergeant Bluff Industrial Park Connectivity**

Connectivity between I-29 and the Sergeant Bluff Industrial Park is needed to improve travel distances and provide direct access to I-29. Existing access to northbound I-29 from the Sergeant Bluff Industrial Park, a distance of approximately 1.9 miles, is provided by Dogwood Trail to South Lewis Boulevard. This route includes two railroad crossings, four traffic signals, and one stop sign. The speed limit is 45 mph from Dogwood Trail to Warrior Road, 35 mph from Warrior Road to 1<sup>st</sup> Avenue, and 30 mph on 1<sup>st</sup> Avenue to I-29. This route brings truck traffic through Sergeant Bluff in residential areas and past a high school. Existing access to southbound I-29 from the Sergeant Bluff Industrial Park, a distance of approximately 5.4 miles, is provided by Dogwood Trail to Old Highway 75 to County Road D51/260<sup>th</sup> Street (see Figure 1). This route includes two railroad crossings and one stop sign. The speed limit is 55 mph from Dogwood Trail to County Road D51/260<sup>th</sup> Street and along County Road D51/260<sup>th</sup> Street to I-29.

### 3.2.3. Improved East-West Connectivity

Existing east-west connectivity across I-29 between the Sergeant Bluff and Port Neal Landing interchanges is limited to one location: Port Neal Road (County Road K25) across I-29 at 225<sup>th</sup> Street, and then Dogwood Trail east from Port Neal Road to 220<sup>th</sup> Street at Old Highway 75 (County Road K45; see Figures 1 and 2). The space between the two existing I-29 interchanges at Sergeant Bluff and Port Neal Landing is approximately 5.5 miles. Port Neal Road (County Road K25) and Dogwood Trail are two-lane roads, with speed limits of 45 mph, approximately 1.4 miles south of the Sergeant Bluff interchange. Port Neal Road (County Road K25) is primarily a north-south road that curves east at 225<sup>th</sup> Street to cross I-29 and then curves north into Sergeant Bluff. Eastbound traffic from 225<sup>th</sup> Street to Old Highway 75 (County Road K45) must cross railroad tracks approximately 200 feet west of Port Neal Road (County Road K25), then turn onto Port Neal Road (County Road K25) at a three-way intersection, cross over I-29 on a 24-foot-wide two-lane bridge (Baughn n.d.), follow Dogwood Trail east toward Old Highway 75 (County Road K45), and cross another railroad track approximately 80 feet west of Old Highway 75 (County Road K45). Consequently, existing east-west connectivity is time consuming and involves substantial out-of-distance travel on several roads. This route, along with Southbridge Drive to 1<sup>st</sup> Street/Aviation Boulevard (I-29 interchange at Interchange 141), are the only routes carrying traffic between industrial areas west of I-29 and residential and commercial areas in Sergeant Bluff. As discussed in Section 3.1, future land use plans project the entire area between the Sioux Gateway Airport to Salix, both east and west of I-29, developing into industrial, commercial, and residential areas. The proposed interchange is needed to provide access and east-west connectivity to this developing area.

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## 4.0 Alternatives

This section will discuss the alternatives investigated to address the project's purpose and need. A range of alternatives was developed, including potential types of interchanges and potential locations for the proposed interchange. The No Build Alternative, the alternatives considered but dismissed, and the Proposed Alternative are discussed below.

Five types of interchanges (folded diamond, partial cloverleaf, single point, tight diamond, and traditional diamond) were initially considered. Preliminary designs were based on single-lane ramps and two-lane connecting roads. After initial environmental screening indicated that the folded diamond, single point, and tight diamond concepts had greater environmental impacts, greater cost of land acquisition, and other infrastructure requirements, these concepts were not considered viable alternatives. For a folded diamond interchange, to maintain adequate deceleration rates and superelevation, the exit ramp would likely have required another bridge. For a single-point interchange, the cost for a large bridge would not be justified for the projected traffic load. For a tight diamond interchange, given the anticipated industrial development in the area, the turning radii would not be optimum to support heavy vehicles with large turning radii. Therefore, partial cloverleaf and traditional diamond concepts were retained as interchange types for further evaluation.

Three locations (north, middle, and south) within the study area were considered for the proposed interchange (Figure 4). The north location would provide access to I-29 at 235<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.25 mile south of 235<sup>th</sup> Street on the west side of I-29. The middle location would also provide access to I-29 at 235<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.40 mile south of 235<sup>th</sup> Street on the west side of I-29. The south location would provide access to I-29 at 240<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.90 mile south of 235<sup>th</sup> Street on the west side of I-29.

Two interchange types (partial cloverleaf and traditional diamond) were considered at each of the three locations (north, middle, and south), giving a range of six potential alternatives. Figure 4 shows the six alternative corridors, with the approximate area that would be disturbed for constructing the interchange and two connecting roads. The width of the corridors for the connecting roads is 325 feet, allowing flexibility for placement of a two-lane roadway, including approximately 90 feet of right of way (ROW). I-29 would be reconstructed within the defined corridors to accommodate the proposed ramps. For the purposes of this study, the corridors that include roadway ROW and the area where construction could occur are referred to as impact corridors. Because it is early in the design process, the area potentially affected by the project would be less than what is portrayed within the impact corridors.

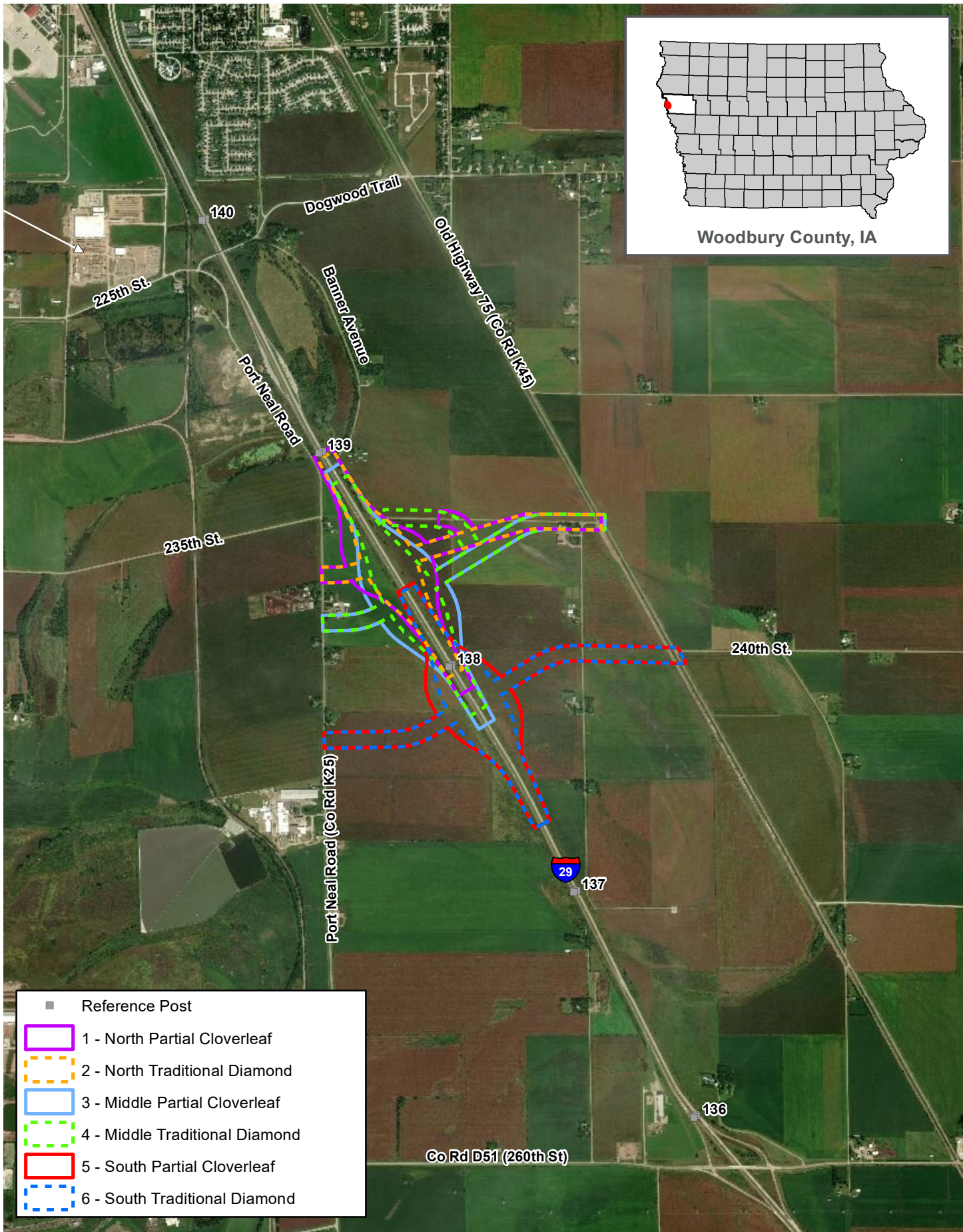
### 4.1. No Build Alternative

Under the No Build Alternative, no action would be taken to construct the proposed interchange between the existing interchanges at Sergeant Bluff (Interchange 141) and Port Neal Landing (Interchange 135). Regular maintenance of I-29 in the study area would occur, but new construction in the study area, ongoing or planned, is not considered as part of the No Build Alternative.

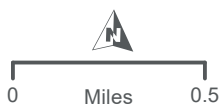
Three of the five projects described in Section 2.0 – Project History, Table 1, have been recently constructed; the other two are programmed for fiscal year 2022. These projects will be discussed further in Section 5.5 – Cumulative Impacts. It is assumed that these projects will be completed independently, regardless of whether an interchange is constructed in the study area.



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- Reference Post
- 1 - North Partial Cloverleaf
- 2 - North Traditional Diamond
- 3 - Middle Partial Cloverleaf
- 4 - Middle Traditional Diamond
- 5 - South Partial Cloverleaf
- 6 - South Traditional Diamond



**ALTERNATIVE CORRIDORS  
SOUTHBRIDGE INTERCHANGE  
ENVIRONMENTAL ASSESSMENT**

**FIGURE 4**

As planned development occurs in this area, including industrial development dependent on heavy vehicle traffic, increased traffic would travel on the existing unpaved, rural roadways, and would access I-29 at existing interchanges. The No Build Alternative would not satisfy the project's purpose and need requirements because it has no means to support planned economic development, future land use, and growth objectives in and adjacent to the study area or to establish system linkage, including connectivity to the Southbridge Business Park, Sergeant Bluff Industrial Park, and between areas east and west of I-29. The No Build Alternative will be carried forward to the impact analysis step to serve as a baseline for comparison against the Proposed Alternative.

## **4.2. Alternatives Considered but Dismissed**

Six build alternatives (numbered Alternative 1 through Alternative 6) were considered for the proposed interchange. These alternatives were evaluated for the impacts that they would have on environmental resources in the study area. The impacts of each alternative were compared to determine which alternatives to dismiss from further evaluation, discussed in this section, and which build alternative(s) to carry forward, discussed in Section 4.3. The environmental impacts are summarized in Section 4.4, Table 2.

### **4.2.1. Alternative 1**

Alternative 1, North Partial Cloverleaf, includes construction of a partial cloverleaf interchange providing access to 235<sup>th</sup> Street, as shown in Figure 4. The interchange would be constructed at mile marker 138 and would provide access to I-29 at 235<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.25 mile south of 235<sup>th</sup> Street on the west side of I-29. Approximately 0.8 mile of 235<sup>th</sup> Street east of the interstate would be realigned as part of the interchange tie-in connections, and the realigned 235<sup>th</sup> Street would be extended approximately 0.25 miles west of the interstate to connect with Port Neal Road. Approximately 0.25 mile of 235<sup>th</sup> Street just west of Old Highway 75 would remain on the same alignment; this segment of 235<sup>th</sup> Street would be graded and paved, and impacts on buildings on an existing farmstead would be avoided. No historic sites are present in or near the impact corridor for this alternative.

The partial cloverleaf interchange configuration would eliminate left-turn conflict points on side-road access, but would require more ROW than a traditional diamond interchange configuration. The partial cloverleaf interchange also would require lower speeds for vehicles entering the interstate and would affect heavy trucks more than other vehicles due to the turning radius of the ramps.

Alternative 1 would affect approximately 87 acres of farmland, which is more than Alternatives 2 and 4, but fewer than the other alternatives, and would affect approximately 16.5 acres of farmland irrigated by two center-pivot irrigation systems, which is more than all other alternatives except Alternative 3. The impact corridor would include three structures supporting a 161 kilovolt (kV) transmission line and one structure supporting a 161 kV and a 345 kV transmission line. Alternative 1 would potentially affect one regulated material site, an aboveground storage tank (AST). This alternative would affect the least floodplain, except for Alternatives 2 and 3, and the least wetlands, except for Alternative 2. Alternative 1 was dismissed because, although it has similar impacts to Alternative 2, it would require more ROW to construct and affect more farmland, floodplains, and wetlands.

### **4.2.2. Alternative 3**

Alternative 3, Middle Partial Cloverleaf, is similar to Alternative 1, but the center of the interchange would be approximately 800 feet southeast of Alternatives 1 and 2, as shown in Figure 4. Approximately 1 mile of 235<sup>th</sup> Street east of the interchange would be realigned, and the realigned 235<sup>th</sup> Street would be extended approximately 0.4 miles west of the interstate to connect with Port Neal Road. Access to Port Neal Road

on the west side of I-29 would be located approximately 0.4 mile south of 235<sup>th</sup> Street. Approximately 0.25 mile of 235<sup>th</sup> Street just west of Old Highway 75 would remain on the same alignment; this segment of 235<sup>th</sup> Street would be graded and paved, and impacts on buildings on an existing farmstead would be avoided. No historic sites are present in or near the impact corridor for this alternative.

The partial cloverleaf interchange configuration would eliminate left-turn conflict points on side-road access, but would require more ROW than a traditional diamond interchange configuration. The partial cloverleaf interchange also would require lower speeds for vehicles entering the interstate and would affect heavy trucks more than other vehicles due to the turning radius of the ramps.

Alternative 3 would affect approximately 98 acres of farmland, which is more than all other alternatives except Alternative 5, and approximately 18 acres of farmland irrigated by two center-pivot irrigation systems, which is the most acreage of any alternative. The impact corridor would include two structures supporting a 161 kV transmission line and one structure supporting a 161 kV and a 345 kV transmission line. Alternative 3 would affect the most regulated material sites (tied with Alternative 4), with three ASTs. Alternative 3 would impact fewer acres of floodplains than all other alternatives except Alternative 2, but would affect more wetlands than Alternatives 1, 2, and 4. Alternative 3 was dismissed because of its additional ROW needs and higher environmental impacts to farmland and wetlands than Alternative 2.

#### **4.2.3. Alternative 4**

Alternative 4, Middle Traditional Diamond, includes construction of a traditional diamond interchange in the same location as Alternative 3, as shown in Figure 4. The realignment of 235<sup>th</sup> Street east of the interstate and extension west of the interstate, and access points to Old Highway 75 and Port Neal Road would be the same as for Alternative 3. Impacts on buildings on an existing farmstead would be avoided. No historic sites are present in or near the impact corridor for this alternative.

The traditional diamond interchange configuration would result in left-turn conflict points on side-road access, but would require less ROW than a partial cloverleaf interchange configuration. The traditional diamond interchange also would allow higher speeds for vehicles entering the interstate, and is preferred in situations with higher proportions of heavy trucks, as anticipated in the industrial land use surrounding the study area.

Alternative 4 would affect approximately 84 acres of farmland, which is more than Alternative 2, and approximately 9 acres of farmland irrigated by two center-pivot irrigation systems, which is more than Alternatives 5 and 6. The impact corridor would include seven structures supporting a 161 kV transmission line and one structure supporting a 161 kV and a 345 kV transmission line. Alternative 4 would affect the most regulated material sites (tied with Alternative 3), with three ASTs. Alternative 4 would impact more acres of floodplains than Alternatives 1, 2, and 3, and would affect more wetlands than Alternatives 1 and 2. Alternative 4 was dismissed because of its additional ROW needs and higher environmental impacts to farmland and wetlands than Alternative 2.

#### **4.2.4. Alternative 5**

Alternative 5, South Partial Cloverleaf, includes construction of a partial cloverleaf interchange approximately 2,600 feet (0.5 mile) southeast of Alternatives 3 and 4, and approximately 3,400 feet (0.6 mile) southeast of Alternatives 1 and 2, as shown in Figure 4. The interchange would be constructed between mile markers 137 and 138. Alternative 5 would provide access to I-29 at 240<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.90 mile south of 235<sup>th</sup> Street on the west side of I-29. The existing 240<sup>th</sup> Street ends at Old Highway 75; there is no existing 240<sup>th</sup> Street within the study area. Construction of Alternative 5 would require extension of 240<sup>th</sup> Street as an access road from Old Highway

75 to Port Neal Road (approximately 1.5 miles) to connect with the proposed interchange ramps. A new railroad crossing would be required for the connection of 240<sup>th</sup> Street from Old Highway 75.

The partial cloverleaf interchange configuration would eliminate left-turn conflict points on side-road access, but would require more ROW than a traditional diamond interchange configuration. The partial cloverleaf interchange also would require lower speeds for vehicles entering the interstate and would affect heavy trucks more than other vehicles due to the turning radius of the ramps.

Alternative 5 would affect approximately 103 acres of farmland, the most of any alternative, and approximately 3 acres of farmland irrigated by two center-pivot irrigation systems, which is fewer than Alternatives 1, 2, 3, and 4. The impact corridor would include four structures supporting a 161 kV and a 345 kV transmission line and one structure supporting a 345 kV transmission line. Alternative 5 would not affect any buildings or regulated material sites. One parcel with a historic structure would have a land impact, but the structure would be avoided. Alternative 5 would impact the most acres of floodplains and wetlands of all of the alternatives. Alternative 5 was dismissed because of its additional ROW needs and higher environmental impacts to farmland and wetlands than Alternative 2, and the need for approval of a new railroad crossing.

#### **4.2.5. Alternative 6**

Alternative 6, South Traditional Diamond, includes construction of a traditional diamond interchange in the same location as Alternative 5, as shown in Figure 4. The realignment of 240<sup>th</sup> Street and access points to Old Highway 75 and Port Neal Road would be the same as for Alternative 5. Construction of Alternative 6 would require extension of 240<sup>th</sup> Street as an access road from Old Highway 75 to Port Neal Road (approximately 1.5 miles) to connect with the proposed interchange ramps. A new railroad crossing would be required for the connection of 240<sup>th</sup> Street from Old Highway 75.

The traditional diamond interchange configuration would result in left turn conflict points on side road access, but requires less ROW than a partial cloverleaf interchange configuration. This interchange type also allows higher speeds for vehicles entering the interstate, and is preferred in situations with higher proportions of heavy trucks, as anticipated in the surrounding industrial land use.

Alternative 6 would affect approximately 87 acres of farmland, which is fewer than Alternatives 3 and 5, and approximately 2 acres of farmland irrigated by two center-pivot irrigation systems, the least of any of the alternatives. The impact corridor would include four structures supporting a 161 kV and a 345 kV transmission line and one structure supporting a 345 kV transmission line. Alternative 6 would not affect any buildings or regulated material sites. One parcel with a historic structure would have a land impact, but the structure would be avoided. Alternative 6 would impact the most acres of floodplains and wetlands of all other alternatives except Alternative 5. Alternative 6 was dismissed because of its additional ROW needs and higher environmental impacts to farmland and wetlands than Alternative 2, and the need for approval of a new railroad crossing.

### **4.3. Proposed Alternative – Alternative 2**

Alternative 2, North Traditional Diamond, includes construction of a traditional diamond interchange providing access to 235<sup>th</sup> Street, as shown in Figure 4 and in more detail in Figure 5. The interchange would be constructed at the same location as Alternative 1, at mile marker 138, and would provide access to I-29 at 235<sup>th</sup> Street on the east side of I-29 and Port Neal Road approximately 0.25 mile south of 235<sup>th</sup> Street on the west side of I-29. Approximately 0.8 mile of 235<sup>th</sup> Street east of the interstate would be realigned as part of the interchange tie-in connections, and the realigned 235<sup>th</sup> Street would be extended approximately 0.25 miles west of the interstate to connect with Port Neal Road. Approximately 0.25 mile of 235<sup>th</sup> Street



just west of Old Highway 75 would remain on the same alignment; this segment of 235<sup>th</sup> Street would be graded and paved, but impacts on buildings on an existing farmstead would be avoided. No historic sites are present in or near the impact corridor for this alternative.

The traditional diamond interchange configuration would result in left-turn conflict points on side-road access, but would require less ROW than a partial cloverleaf interchange configuration. The traditional diamond interchange also would allow higher speeds for vehicles entering the interstate, and is preferred in situations with higher proportions of heavy trucks, as anticipated in the industrial land use surrounding the study area.

Alternative 2 would affect approximately 59 acres of farmland, the least of any of the alternatives, and approximately 11 acres of farmland irrigated by two center-pivot irrigation systems, fewer than Alternatives 1 and 3. The impact corridor would include two structures supporting a 161 kV transmission line and one structure supporting a 161kV and a 345 kV transmission line. Alternative 2 would potentially affect one regulated material site, an AST. Alternative 2 would impact the fewest acres of floodplains and wetlands of any alternative. Alternative 2 was selected as the proposed alternative because it would have the fewest impacts on environmental resources.

#### **4.4. Summary of Alternatives Comparison**

The estimated preliminary impacts that the six potential build alternatives would have on key resources (that is, those resources involved in future approval and permitting activities) in the study area are presented in Table 2. The No Build Alternative would not impact existing resources; therefore, it is not included in Table 2. Streams, water bodies, and woodlands are present in the study area, but would not be affected by any of the alternatives. Potential suitable habitat for the northern long-eared bat exists in the woodlands within the study area, but would not be affected by any of the alternatives. There are no known archaeological sites, recreational properties, or wildlife refuges within the study area. The impact corridors for Alternatives 1 through 4 include properties (one for Alternatives 1 and 2, and two for Alternatives 3 and 4) with outbuildings but no residences; however, the structures would be avoided.

The estimated preliminary impacts were based on an impact corridor ranging from 120 to 200 feet from the concept edge of pavement for the proposed interchange and a potential 325-foot-wide footprint along planned access road tie-ins. Because the anticipated ROW width required for the access roads would be only approximately 90 feet, the actual impacts that the proposed project would have on environmental resources are anticipated to decrease from what is shown in Table 2 as the design process continues. This impact comparison table was used as a basis for determining which alternatives to dismiss from further evaluation and which alternatives to carry forward.

#### **4.5. Final Alternative Selection**

Final selection of an alternative will not occur until all comments on this EA and from the public hearing are reviewed by FHWA, Iowa DOT, and Woodbury County. Following public and agency review of this EA, FHWA and Iowa DOT will determine if an Environmental Impact Statement (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.

**Table 2. Comparison of Build Alternative Impacts**

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6
Floodplains (acres)	28.81	24.24	24.89	31.29	52.75	51.84
Wetlands (acres) <sup>a</sup>	0.34	0.06	1.67	0.64	5.27	4.94
Historic Properties	0	0	0	0	1 <sup>b</sup>	1 <sup>b</sup>
Regulated Material Sites	1	1	3	3	0	0
Electric Transmission Line Structures <sup>c</sup>	3 / 1 / 0	2 / 1 / 0	2 / 1 / 0	7 / 1 / 0	0 / 4 / 1	0 / 4 / 1
Farmland irrigated by center-pivot systems (acres) <sup>d</sup>	16.43	10.85	17.85	8.73	2.53	1.78
Farmland (acres)	86.57	59.48	98.07	83.94	102.67	87.44

<sup>a</sup> Wetland impact acres include both palustrine emergent and agricultural wetlands.

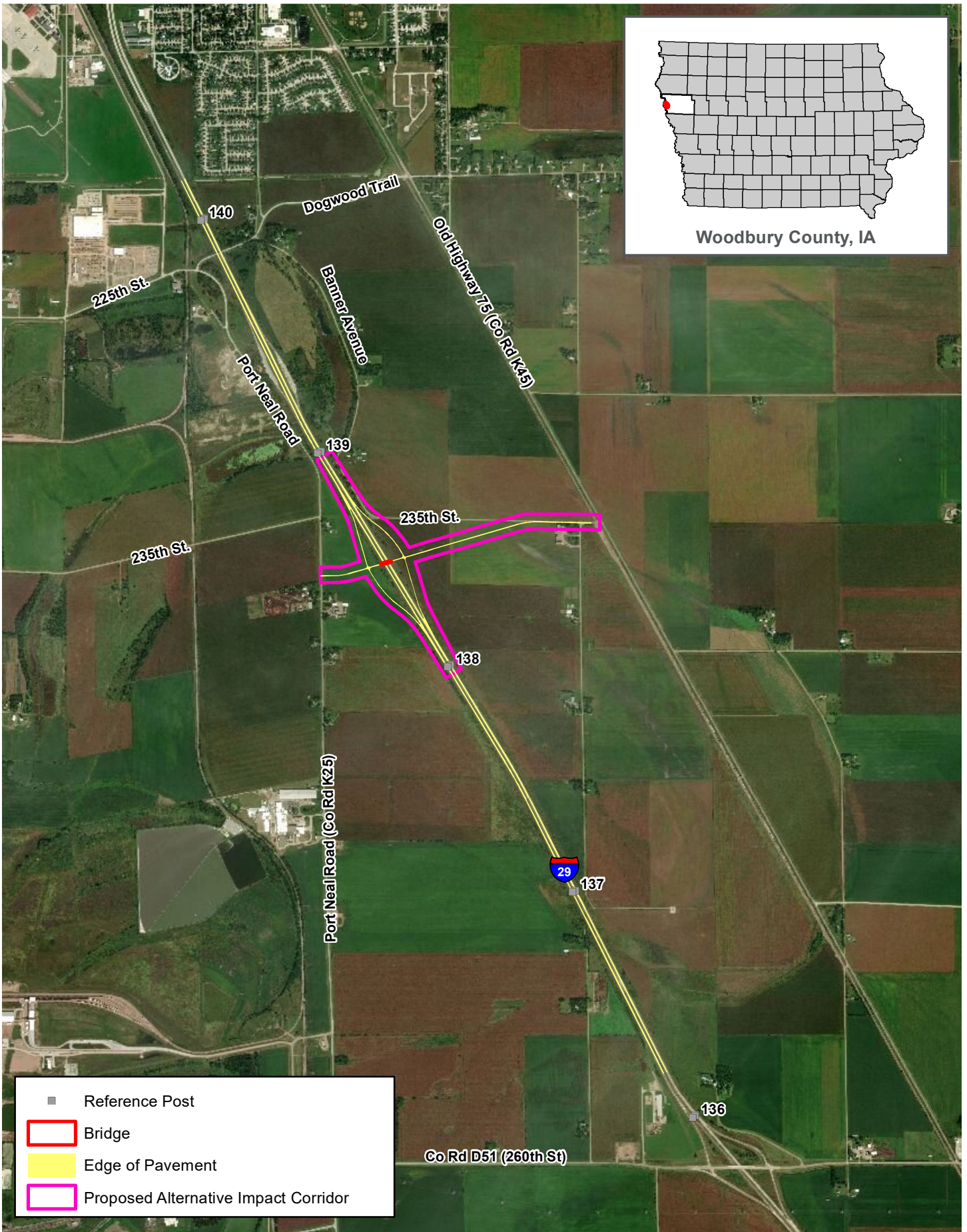
<sup>b</sup> One parcel with two historic structures would have a land impact, but the historic structures would be avoided.

<sup>c</sup> There are three configurations of transmission lines traversing the Study Area that would be impacted by the alternatives: a 161 kV line, a 161 kV line and 345 kV line on the same structure, and a 345 kV line. The table denotes the number of structures supporting the 161 kV line / structures supporting the 161 kV line and 345 kV line / structures supporting the 345 kV line.

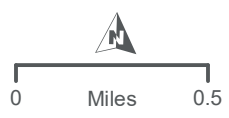
<sup>d</sup> All alternatives affect part of the areas irrigated by the same two center-pivot irrigation systems.

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- Reference Post
- ▭ Bridge
- ▭ Edge of Pavement
- ▭ Proposed Alternative Impact Corridor



**PROPOSED ALTERNATIVE ALIGNMENT AND IMPACT CORRIDOR**  
**SOUTHBRIDGE INTERCHANGE**  
**ENVIRONMENTAL ASSESSMENT**

**FIGURE 5**

## 5.0 Environmental Analysis

This section describes the existing socioeconomic, cultural, natural, and physical environments in the study area and the potential impacts associated with the Proposed Alternative, Alternative 2, and with the No Build Alternative. In the Preface to this document, the resources with a check in the second column in the “Resources Considered” table warrant further discussion as presented below.

Because it is early in the design process, a preliminary NEPA impact area (impact area) was used for estimating direct and indirect impacts on the evaluated environmental resources. The impact area includes roadway ROW needs and the area where construction could occur, and is equivalent to the construction corridors considered in reviewing the six potential build alternatives described in Section 4.0. The area actually impacted by the selected alternative will likely be smaller than what is portrayed as the impact area, and some impacts on 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 because efforts to minimize direct and indirect impacts will be made as the design is refined.

### 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. In addition, relevant socioeconomic resources evaluated include economics, ROW, construction and emergency routes, and transportation.

#### 5.1.1. Land Use

Current land uses within the study area consist primarily of agricultural and undeveloped land. There are six dispersed rural residential (farmstead) properties within the study area as well as an I-29 rest area, both northbound and southbound, located north of mile marker 139. All but 16 acres of the study area are in the Southbridge Business Park (see Figure 1). To date, existing industrial and commercial development in the Southbridge Business Park has occurred outside of the study area.

The planned land uses within the study area—taken from Sioux City’s *2005 Comprehensive Plan*, Sergeant Bluff’s *Comprehensive Plan 2012–2022*, Woodbury County’s *Planning for 2025: The Woodbury County General Development Plan*, and Woodbury County’s *Envision 2050* plan—include industrial, commercial, and residential land uses (City of Sioux City n.d.; City of Sergeant Bluff 2012; Woodbury County 2005, 2014).

Sioux City’s *2005 Comprehensive Plan* and Sergeant Bluff’s *Comprehensive Plan 2012–2022* anticipate all of the study area outside of I-29 ROW developing in the future. Most of the current development activity consists of industrial uses, but land use plans anticipate commercial and industrial areas near the proposed interchange and residential areas east of I-29.

The study area includes agricultural land (properties of 40 acres or more) with farmsteads that have been owned for more than a century. The State of Iowa has a Century Farms Program that recognizes families who have continuously owned the property and have filed an application approved by the Century Farms Program. The Program is sponsored by the Iowa Department of Agriculture and Land Stewardship, with the endorsement of the Iowa Farm Bureau Federation.

## **Alternative 2**

Alternative 2 would require the acquisition of agricultural lands, including Century Farms Program lands. Coordination occurred with the Iowa Department of Agriculture and Land Stewardship's Century Farms Program to confirm that land under the Century Farm Program could be used for various purposes such as a roadway project (Iowa Department of Agriculture and Land Stewardship 2017).

The impact area, presented in Figure 6, shows potential impacts on residential outbuildings, but the impact area is wider than needed. The existing outbuildings would be avoided because there is sufficient area to improve the road without affecting the buildings. The construction of Alternative 2 would support the planned development in the area by providing I-29 access and east-west connectivity across I-29, and would provide a backbone for future road projects that support the future planned development. Alternative 2's proximity to the Missouri River floodplain may limit the potentially developable area in parts of the study area and adjacent areas. Alternative 2 is consistent with Sioux City's *2005 Comprehensive Plan*, Sergeant Bluff's *Comprehensive Plan 2012–2022*, Woodbury County's *Planning for 2025: The Woodbury County General Development Plan*, and Woodbury County's *Envision 2050* plan.

## **No Build Alternative**

No immediate change to land use in the area would occur under the No Build Alternative. Smaller, independent roadway and other projects may still occur in the study area. In such a case, development in the area could still occur under the No Build Alternative, but it would not be completed as described in Sioux City's *2005 Comprehensive Plan*, Sergeant Bluff's *Comprehensive Plan 2012–2022*, Woodbury County's *Planning for 2025: The Woodbury County General Development Plan*, and Woodbury County's *Envision 2050* plan because the project is a major component of the planned road network. The pace and extent of development may be limited by future traffic congestion on existing roads.

### **5.1.2. Economics**

The study area is in Woodbury County. Of the 987 acres in the study area, approximately 80 acres are within the municipal boundaries of Sioux City and approximately 10 acres are within Sergeant Bluff; the remaining land is unincorporated. Sioux City is at the heart of the Sioux City Metropolitan Statistical Area, which includes the following counties: Woodbury and Plymouth, Iowa; Dakota and Dixon, Nebraska; and Union, South Dakota (Siouxland Chamber of Commerce 2019). The tri-state region, known as Siouxland, includes the cities of Sioux City and Sergeant Bluff, Iowa; South Sioux City and Dakota City, Nebraska; and North Sioux City and Dakota Dunes, South Dakota.

The leading sectors of employment in Woodbury County are health care and social assistance, retail trade, manufacturing, accommodations and food service, education, and construction (Bureau of Economic Analysis 2018). Several of the largest employers in Woodbury County are located in the Southbridge Business Park; these include Seaboard Triumph Foods, MidAmerican Energy Company, Sabre Industries, and Gelita USA (Woodbury County 2014). These employers account for approximately 5 percent of the 65,000 jobs in Woodbury County.

The City of Sioux City and Woodbury County have been encouraging growth of industrial activities in the Southbridge Business Park and the business and industrial parks to the north. Development in Sioux City has been expanding south as the industrial parks surrounding Sioux Gateway Airport have fully, or nearly fully, developed. The City of Sioux City extended its corporate boundary south of Sioux Gateway Airport in 2011 and began constructing utilities, a rail yard, and roads in the Southbridge Business Park (KTIV 2016). Since 2011, development has been expanding south into rural areas. In accordance with the City of Sioux City and Woodbury County, industrial development is planned for the entire area west of I-29

between the Sioux Gateway Airport and County Road D51 (Woodbury County 2005, 2014). Commercial and residential areas are planned east of I-29. The City of Sergeant Bluff installed utilities in a planned industrial park at the southern edge of Sergeant Bluff adjacent to the study area (City of Sergeant Bluff 2019).

The agricultural workforce is approximately 1.6 percent of the total Woodbury County workforce (Iowa Workforce Development 2018). There are six farmsteads in the study area and two additional farmsteads immediately adjacent to the study area. The average assessed value for agricultural land in Woodbury County is \$2,084 per acre; in the study area, the assessed value averages approximately \$1,800 per acre. Approximately 82 percent of agricultural land in Woodbury County was cropland in 2018; the remainder was pasture or other uses. Approximately 54 percent of cropland was in corn production in 2018, and approximately 46 percent was in soybeans. The average acre of farmland yielded 219 bushels of corn in 2018 or 61 bushels of soybeans.

The study area contains 987 acres; of this total, approximately 735 acres are assessed by Woodbury County as agricultural land or agricultural dwellings, 216 acres are in I-29 ROW, and 13 acres are railway ROW owned by Union Pacific Railroad (UPRR). All but 16 acres of the study area are in the Southbridge Business Park. Other than State of Iowa ROW for I-29, the study area is primarily agricultural land and agricultural dwellings (farmsteads).

### ***Alternative 2***

Alternative 2 would not displace or impact existing rural residences or farmsteads because these would be avoided. Construction of the project would likely support planned industrial, commercial, and residential development. The rapid and consistent growth that Sioux City and Sergeant Bluff are experiencing in existing business parks, including the Southbridge Business Park, adjacent to the study area is likely to continue based on improved access to I-29 and proximity to the Sioux Gateway Airport and existing employment hubs along I-29. Employment in the Southbridge Business Park is anticipated to be primarily industrial, with some commercial area anticipated near the project.

The construction of Alternative 2 could potentially impact 59.48 acres of farmland, all of which is classified as prime farmland or soils of statewide importance. The gross revenue from this farmland averages \$39,000<sup>1</sup> per year based on US Department of Agriculture estimating procedures. The anticipated revenue from new commercial enterprises would likely far exceed current agricultural revenue. Additionally, taxable property value would increase dramatically with conversion of agricultural lands to commercial use.

### ***No Build Alternative***

Under the No Build Alternative, the Southbridge interchange would not be constructed, and the area would likely remain as agricultural land until future development converts it to other land use types. Developmental momentum in Sioux City would likely still exist, and development may proceed in a less coordinated manner than what is planned in Sioux City's *2005 Comprehensive Plan*, Sergeant Bluff's *Comprehensive Plan 2012–2022*, Woodbury County's *Planning for 2025: The Woodbury County General Development Plan*, and Woodbury County's *Envision 2050* plan. Economic growth in the Southbridge Business Park and surrounding business and industrial parks may occur at a slower pace compared to Alternative 2.

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<sup>1</sup> The value of \$39,000 was calculated by multiplying 219.4 bushels of corn per year by the average price of \$3.50 per bushel, multiplied by 32 acres of farmland (54 percent of the farmland), and by multiplying 60.9 bushels of soybeans per year by the average price of \$8.60 per bushel, multiplied by 27 acres of farmland (46 percent of the farmland) impacted by Alternative 2.



### **5.1.3. Right of Way**

The study area consists of approximately 987 acres and includes 58 parcels owned by 26 different persons or organizations. Within the study area, 3 acres are under the ownership of the City of Sioux City. The City-owned lands include undeveloped ROW adjacent to Port Neal Road. The remaining 984 acres within the study area are privately owned. Current ROW includes 216 acres in I-29 ROW and 13 acres in UPRR ROW.

#### ***Alternative 2***

The Alternative 2 impact area includes approximately 503 acres of land outside of existing roadway ROW and would not require residential relocations, as shown in Figure 6. Although some outbuildings are included in the impact area, the corridor is wider than needed. Impacts on the outbuildings would be avoided because there is sufficient area to improve the road without affecting the buildings. The amount of land converted to roadway ROW for the construction and maintenance of the new interchange and connecting access roads is anticipated to decrease as the design process continues.

To facilitate construction of the interchange, crossovers within interstate ROW would be used to reduce traffic to one lane in each direction. One crossover would be constructed north of the proposed interchange and a second crossover would be constructed south of the proposed interchange; both crossovers would be within the study area. Although specific locations of crossovers within interstate ROW are not yet known, the land was previously disturbed during construction of the interstate system. Each crossover would likely be approximately 0.1 mile in length and would disturb approximately 0.3 acre.

Alternative 2 would result in changing access to several parcels of land, but would likely not lose existing access or usability as farmland.

#### ***No Build Alternative***

The No Build Alternative would not require any ROW acquisitions or relocations because the project would not be constructed. Developmental momentum in Sioux City would likely still exist, and development may proceed in a less coordinated manner than what is planned in Sioux City's *2005 Comprehensive Plan*.

### **5.1.4. Construction and Emergency Routes**

Several emergency service providers are located in and near the study area. The emergency service providers that respond to an incident vary based on the location of the incident. Emergency calls within the study area are dispatched through the Woodbury County Communications Center to 6 law enforcement agencies and 19 fire and emergency medical service agencies (Woodbury County Communications Center n.d.). The nearest fire department is the Sergeant Bluff Fire Department located at 204 Port Neal Road, approximately 0.64 mile northeast of the study area. The nearest police station is the Sergeant Bluff Police Department located at 309 5<sup>th</sup> Street, approximately 0.94 mile northeast of the study area.

#### ***Alternative 2***

The proposed project is located primarily in an undeveloped and agricultural area. The construction of the proposed project would be staged so traffic and access to property would be maintained. Construction of the project would be completed under traffic along the interstate with temporary lane closures. A detailed staging plan would be developed during final design.

Temporary impacts on the existing transportation network due to construction of Alternative 2 would be limited due to the location of the interchange. Short partial closures of Port Neal Road and Old Highway 75 would occur to tie the interchange into existing pavement. The UPRR rail line would require temporary closures to improve the existing crossing; any necessary closures would be coordinated with UPRR.

Construction of Alternative 2 would not likely disrupt emergency routes. When completed, Alternative 2 may have a beneficial impact on the response times in the area due to the addition and location of the proposed roadways, especially for the industries located west of the interstate.

Construction traffic would be routed along the interstate system and the existing network of county and local roads. Crossovers would be used to facilitate interstate traffic during interchange construction. No construction is known to be currently occurring in the study area. In the future, construction of roadway and other improvements in addition to the project could occur in or near the study area. Cumulative impacts of reasonably foreseeable projects in conjunction with Alternative 2 are addressed in Section 5.5, Cumulative Impacts.

### ***No Build Alternative***

There would be no disruption of emergency services as part of the No Build Alternative. However, future roadways or developments may lead to decreased or increased response times depending on their location and effect on traffic patterns.

### **5.1.5. Transportation**

The study area for the transportation network generally extends 1 mile off of the project study area. The existing transportation network in and around the study area is shown in Figure 1, and the roads identified in the following description are shown in Figure 2.

I-29 bisects the entire study area from northwest to southeast. Roadways east of I-29 include Barker Avenue, Old Highway 75 (County Road K45), 235<sup>th</sup> Street, Banner Avenue, Dogwood Trail, and Port Neal Road (County Road K25), as follows:

- Barker Avenue is approximately 0.80 mile east of I-29 beginning at 235<sup>th</sup> Street. The roadway then heads south for 1.40 miles, turns east adjacent to I-29, and ends approximately 0.30 mile east of I-29.
- Old Highway 75 is approximately 0.80 mile east of I-29 and parallels the roadway throughout the study area.
- 235<sup>th</sup> Street begins at Old Highway 75 and extends 0.90 mile west to I-29. From there, 235<sup>th</sup> Street turns north and becomes Banner Avenue.
- Banner Avenue extends north 0.90 mile around Browers Lake and ends at Port Neal Road.
- Dogwood Trail extends approximately 0.60 mile between Port Neal Road and Old Highway 75.
- Port Neal Road is the only roadway in the study area that crosses over I-29. The roadway begins outside of the study area on the east side of I-29 and enters the study area at the intersection with Dogwood Trail. From there, Port Neal Road heads west over I-29.

Roadways west of I-29 include Port Neal Road, 225<sup>th</sup> Street, and South Bridge Drive, as follows:

- Port Neal Road heads west over I-29 and then curves south at 225<sup>th</sup> Street and proceeds south/southeast out of the study area.

- 225<sup>th</sup> Street begins approximately 0.10 mile west of I-29 at Port Neal Road. The roadway then continues southwest out of the study area.
- South Bridge Drive begins approximately 0.25 mile southwest of I-29 along 225<sup>th</sup> Street. From the 225<sup>th</sup> Street intersection, South Bridge Drive heads north and then parallels I-29 before exiting the study area.

The nearest interchanges to the study area along I-29 are 2.5 to 3 miles away. The first is located approximately 2.5 miles south of the proposed project at 260<sup>th</sup> Street. The second is located 3.0 miles north of the project at 1<sup>st</sup> Street in Sergeant Bluff.

There are two UPRR rail lines in the study area. The first rail line is east of I-29 and parallels Old Highway 75 throughout the study area. At-grade crossings for the rail line are present at Dogwood Trail and 235<sup>th</sup> Street. The second rail line is west of I-29. The rail line enters the study area on the south, parallel to Port Neal Road. The rail line extends north, curving slightly west before continuing north to I-29, and then parallels I-29 out of the study area. One at-grade crossing of the rail line is located at 225<sup>th</sup> Street.

The Sioux Gateway Airport is located approximately 0.30 mile northwest of the study area. The airport services one commercial airline, one private airline, private planes, and the Iowa Air National Guard.

Because of the rural nature of the study area, there are no Sioux City bus services directly serving the area, including the on-call, flex routes, and paratransit services (City of Sioux City 2018), and there are no plans to expand service to the area in the SIMPCO's 2040 LRTP (SIMPCO 2016, 2017). Additionally, there are no pedestrian or bicycle trails in the study area.

### ***Alternative 2***

As discussed in Section 4.3, Alternative 2 would create a new diamond interchange at mile marker 138, roughly halfway between the existing interchanges at Sergeant Bluff to the north (1<sup>st</sup> Street/Aviation Boulevard, Interchange 141) and Port Neal Landing in Salix to the south (County Road D51/260<sup>th</sup> Street, Interchange 135). The new interchange would connect to Port Neal Road on the west and 235<sup>th</sup> Street on the east. Because of the location of Alternative 2, Banner Avenue would be closed approximately 1 mile south of Dogwood Trail and would end in a dead end. The western portion of 235<sup>th</sup> Street would be realigned 0.2 mile south to match the interchange. Alternative 2 would tie back into the existing 235<sup>th</sup> Street approximately 0.3 mile west of Old Highway 75 before the UPRR at-grade crossing. The segment of 235<sup>th</sup> Street between Banner Avenue and the interchange tie-in would be abandoned. The existing at-grade UPRR crossing at 235<sup>th</sup> Street would be used as part of Alternative 2. A new at-grade crossing would not be needed. Additional improvements as part of Alternative 2 include paving the existing gravel road along 235<sup>th</sup> Street and improving the at-grade UPRR crossing. Coordination would occur with UPRR on the extent and timing of the at-grade crossing improvements.

The Sioux Gateway Airport is located 0.30 mile northwest of Alternative 2. Because of the proximity of the airport, Alternative 2 would be constructed such that the height of the interchange would not interfere with the runways. The Federal Aviation Administration's Notice Criteria Tool indicates that the project would need to file FAA Form 7460-1 with the Federal Aviation Administration prior to construction because the project may impact the assurance of navigation signal reception.

### ***No Build Alternative***

No impacts on transportation services would occur as part of the No Build Alternative. Traffic along 235<sup>th</sup> Street and Port Neal Road would likely increase as development in the Southbridge Business Park

continues. As development momentum continues, the area would lack the critical roadways and other transportation services needed to foster orderly and responsible expansion of Sioux City.

## **5.2. Cultural Impacts**

Evaluating potential impacts on cultural resources requires consideration of archaeological and historic properties as well as historical districts. No archaeological properties of historic significance were found in the study area and are therefore not discussed in this section.

### **5.2.1. Historical Sites or Districts**

An architectural resources survey of the entire study area was conducted in May 2017. Three properties were recommended as eligible for listing on the National Register of Historic Places (NRHP): a dwelling (97-04943) and barn (97-04944) at 2410 Port Neal Road, and a house at 2414 Barker Avenue (97-04949) (HDR 2017a). Another property was recommended for further evaluation if there would be a direct impact on the structure: a potentially relocated schoolhouse (97-05866) at 2310 Banner Avenue. The Iowa State Historic Preservation Office (SHPO) concurred with these findings on January 22, 2018, indicating that the dwelling and barn at 2410 Port Neal Road, in addition to other outbuildings and the farm (ISIF 97-05844), were recently listed on the NRHP (November 16, 2017) as the W.L. and Winnie (Woodfield) Belfrage Farmstead Historic District (National Register Information System Number 10001819). This correspondence is included in Appendix B.

#### ***Alternative 2***

Alternative 2 includes an interchange and access roads that are not near the NRHP-listed historic district, the NRHP-eligible property at 2414 Barker Avenue, and the unevaluated resource at 2310 Banner Avenue (see Figure 6). Iowa DOT prepared an effect determination indicating “No Historic Properties Affected” on June 20, 2019. The effect determination requested that Iowa SHPO concur with the finding, and Iowa SHPO responded with concurrence on July 31, 2019.

#### ***No Build Alternative***

The No Build Alternative would not impact any identified architectural properties of historic significance. As development momentum continues, it is possible that impacts on architectural properties of historical significance could occur in the study area.

## **5.3. Natural Environment Impacts**

Evaluating potential impacts on natural resources in the study area requires consideration of wetlands, surface waters and water quality, floodplains, wildlife and habitat, threatened and endangered species, woodlands, and farmland.

### **5.3.1. Wetlands**

Waters of the US, including wetlands, waterways, lakes, natural ponds, and impoundments, are regulated by the US Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill materials into waters of the US (33 United States Code 121 et seq.). Executive Order 11990, Protection of Wetlands, requires federal agencies, including FHWA, to implement “no net loss” measures for wetlands (42 Federal Register 26951). These no net loss measures



include a phased approach, beginning with wetland impact avoidance, then minimization of impacts if wetlands cannot be avoided, and finally mitigation to compensate for impacts.

A wetland delineation was conducted in the study area in November 2016 and April 2017 to identify and map wetlands (HDR 2017b). The wetland delineation identified 32 vegetated wetlands and 11 farmed wetlands in the study area. Delineated wetlands totaled 8.61 acres of agricultural wetlands, 15.61 acres of emergent wetlands, 0.07 acre of scrub-shrub wetlands, and 1.22 acres of forested wetlands throughout the study area (HDR 2017b). Wetlands identified were associated with roadway ditches and field depressions. No waterways were identified. Additionally, no wetlands with outstanding natural resource quality, such as outstanding Iowa waters, fens, bogs, seeps, sedge meadows, or other special wetland types, were identified in the study area. The wetlands identified are listed in Table 3 and shown in Figure 6.

### ***Alternative 2***

Alternative 2 would impact approximately 0.06 acre of palustrine emergent wetland in two wetland areas (see Table 3). No wetlands in agricultural settings would be affected by the project. Actual wetland impact acreage is anticipated to decrease as the design process continues. USACE and the Iowa Department of Natural Resources (DNR) responded to a request for agency feedback on the project (see Section 7.1) and indicated that if waters of the US, including wetlands, were impacted, a Section 404 Clean Water Act permit would need to be acquired. Based on the minimal wetland impacts anticipated, a Nationwide Permit would be the likely permit for acquisition.

### ***No Build Alternative***

The No Build Alternative would not directly impact wetland resources found in the study area. As development momentum continues, it is likely that impacts on wetland resources would occur from development in the study area.

## **5.3.2. Surface Waters and Water Quality**

The Missouri River is located approximately 3 miles west of I-29, and wetlands and open water areas associated with the Missouri River floodplain are present across the landscape. No streams or open water areas (such as ponds and lakes) were identified in the study area. Seventeen registered groundwater wells have been identified in the study area.

The contractor would be required 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 construction stormwater discharge. The NPDES construction stormwater permit requires preparation of a Stormwater Pollution Prevention Plan for construction sites of more than 1 acre. 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 Stormwater Pollution Prevention Plan would likely include installation of silt fences, buffer strips, or other features to be used in various combinations.

**Table 3. Wetlands in the Study Area**

Wetland ID	Wetland Classification <sup>a,b</sup>	Total Wetland Acres	Alt. 2 Impacted Acres
S-01	PEMA/C	1.13	-
S-03	PEMA/C	2.55	-
S-06	PEMA/C	0.11	-
S-08, S-11	PEMA/C	3.89	0.007
S-13	PFOA	0.28	-
S-16	PSSA	0.07	-
S-18	PEMA/C	0.28	-
S-20	PEMA/C	0.29	-
S-22	PEMA/C	0.18	-
S-24	PEMA/C	0.17	-
S-26	PEMA/C	0.04	-
S-29	PEMA/C	0.05	-
S-31	PEMA/C	0.27	-
S-33	PEMA/C	3.53	-
S-35	PFOA	0.94	-
S-37	PEMA/C	0.52	-
S-39	PEMA/C	0.08	-
S-41	PEMA/C	0.50	-
S-43	PEMA/C	0.06	0.05
S-45	PEMA/C	0.02	-
S-47	PEMA/C	0.05	-
S-49	PEMA/C	0.10	-
S-51	PEMA/C	0.17	-
S-52	PEMA/C	0.45	-
S-53	PEMA/C	0.04	-
S-55	PEMA/C	0.56	-
S-58	PEMA/C	0.10	-
S-61	PEMA/C	0.21	-
S-63	PEMA/C	0.19	-
S-65	PEMA/C	0.01	-
S-66	PEMA/C	0.06	-
AG-01	WIAS	0.10	-
AG-02	WIAS	0.56	-
AG-04	WIAS	1.78	-
AG-05	WIAS	1.29	-
AG-06	WIAS	0.04	-
AG-07	WIAS	0.63	-
AG-08	WIAS	1.90	-
AG-09	WIAS	0.89	-
AG-10	WIAS	0.59	-
AG-11	WIAS	0.09	-
AG-12	WIAS	0.74	-
<b>Total</b>		<b>25.51</b>	<b>0.06</b>

<sup>a</sup> Wetland classifications per Cowardin et al. 1979.

<sup>b</sup> PEMA/C = Palustrine Emergent Temporarily/Seasonally Flooded Wetland; PFOA = Palustrine Forested Temporarily Flooded Wetland; PSSA = Palustrine Scrub-Shrub Temporarily Flooded Wetland; WIAS = Wetland in an Agricultural Setting.

## ***Alternative 2***

Alternative 2 would not impact surface waters, and no registered groundwater wells were identified in the impact area (see Figure 6). Iowa DNR, in its early agency coordination response, requested implementation of best management practices to control erosion and protect water quality near the project. During the design process, drainage structures would be designed to adequately convey surface water runoff as much as practical. A Stormwater Pollution Prevention Plan would be prepared, and a NPDES permit would be acquired for the project.

## ***No Build Alternative***

The No Build Alternative would not impact surface waters or water quality. As industrial and commercial development continues, it is likely that impacts on surface waters and water quality would occur in the study area.

### **5.3.3. Floodplains**

The regulatory framework pertaining to floodplains is Executive Order 11988, Floodplain Management, which affords avoidance and minimization considerations to floodplains. As stated in this policy, federal agencies are required “to avoid, to the extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative” (42 Federal Register 26951). In addition, Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input, amends Executive Order 11988 and states “Where possible, an agency shall use natural systems, ecosystem processes, and nature-based approaches when developing alternatives for consideration” (80 Federal Register 6425).

Floodplain information was obtained from the Federal Emergency Management Agency (FEMA) online database for the study area, and floodplain boundaries are shown in Figure 6. A 100-year floodplain crosses the northern portion of the study area, including a portion of the I-29 rest area. Another 100-year floodplain intersects the eastern portion of the study area and the southern portion of the study area. Approximately 386 acres of the study area are within 100-year floodplains. No portion of the study area includes any designated floodway.

Agency coordination letters were sent to Iowa DNR, FEMA, and the US Environmental Protection Agency, all of which address floodplain development. No response was received from FEMA or the US Environmental Protection Agency regarding the project. Iowa DNR provided a response on December 5, 2016, indicating that a state floodplain permit would not be needed and a local floodplain development permit would be needed from Woodbury County. Appendix B includes Iowa DNR’s response.

## ***Alternative 2***

The Alternative 2 footprint would impact approximately 24.24 acres of the 100-year floodplain intersecting the 235<sup>th</sup> Street access road between Old Highway 75 and the new interchange (see Figure 6). As discussed in Section 3.0, the project is needed to provide a connecting link between I-29 and existing business and industrial parks, including improved east-west connectivity across I-29. The Missouri River and its associated tributaries have wide and extensive floodplains. Consequently, east-west connectivity improvements in this area cannot avoid the floodplains.

Any future planned development in the floodplain would be regulated by FEMA National Flood Insurance Program regulations and State of Iowa floodplain regulations. A floodplain development permit from

Woodbury County would be required. The Proposed Action's design would adhere to effective FEMA National Flood Insurance Program regulations and State of Iowa floodplain regulations. Those portions of the impact area in floodplains that are within local municipality jurisdiction would also need local floodplain development permits.

### ***No Build Alternative***

The No Build Alternative would not impact floodplains in the study area. As development momentum continues, it is likely that additional impacts on floodplains would occur in the study area.

### **5.3.4. Wildlife and Habitat**

The study area was evaluated for potential habitats during a field investigation by a qualified biologist in November 2016 and April 2017. The rural area is dominated by agricultural fields interspersed with farm buildings and homes. Vegetation, where present, is mowed ROW, with some trees and shrubs. The northern end of the Study Area approaches Sergeant Bluff and its surrounding industrial and suburban development.

General land use primarily consists of row crop agriculture, isolated woodland areas, roadway ROW, and several rural single-family homes. Typical habitat for common rural wildlife including white-tailed deer, rabbits, raccoons, coyotes, and wild turkey is present in the study area. No waterways, prairie remnants, sedge meadows, or other unique or rare wildlife habitat or plant communities were identified (HDR 2017c).

The I-29 rest area just south of Sergeant Bluff has woodland habitat (5.21 acres, with approximately 1.54 acres within the study area; HDR 2017d). Wetland delineations conducted in 2016 and 2017 identified agricultural wetlands (8.61 acres), emergent wetlands (15.61 acres), scrub-shrub wetlands (0.07 acre), and forested wetlands (1.22 acres) throughout the study area (HDR 2017b). The Missouri River is approximately 3 miles west of the study area.

The woodland area appears to be the most distinct wildlife habitat in the study area. This woodland area likely provides habitat for common woodland species including deer and wild turkey, but also for tree cavity nesting birds, bats, and other wildlife. The Study Area supports populations of migratory birds (such as bell's vireo, northern flicker, peregrine falcon, red-headed woodpecker, short-eared owl, willow flycatcher, ducks, geese, eagles, bitterns, herons, terns, and pelicans) protected under the Migratory Bird Treaty Act (MBTA) (U.S. Fish and Wildlife Service, November 9, 2016).

### ***Alternative 2***

Alternative 2 would impact wildlife and their habitat through conversion of agricultural and other rural lands to ROW. Although trees would be removed within the impact area, no woodland impacts are projected to occur (see Section 5.3.6). Additionally, construction noise and vibration, and the addition of vehicular traffic would impact wildlife in the area.

Clearing of vegetation would be kept to a minimum and provisions of the MBTA would be adhered to as applicable. To minimize impacts to nesting migratory birds, tree clearing would not be conducted between April 1 and September 30. If clearing of trees is proposed to occur during the primary nesting season or at any other time that may result in the 'take' of nesting migratory birds, a qualified biologist would need to conduct a preconstruction field survey of the affected habitats to determine the presence or absence of nesting migratory birds. If nesting migratory birds are present, no tree clearing would occur until the young birds have left the nest. If no nesting migratory birds are present, the proposed clearing of trees may proceed as planned. In the event that pre-construction surveys have been conducted, no migratory bird nesting activities have been discovered, construction has begun, and an occupied nest of a species protected by the

MBTA is then observed, construction would be stopped and consultation with the USFWS initiated to ensure compliance with the MBTA. Construction would not re-start until consultation has been completed and the possibility of impacting nesting migratory birds has passed.

### ***No Build Alternative***

The No Build Alternative would not impact wildlife and habitat in the study area. As development momentum continues, it is likely that additional impacts on wildlife and habitat would occur in the study area.

### **5.3.5. Threatened and Endangered Species**

The study area was surveyed for threatened and endangered species habitat by a qualified biologist in November 2016 and April 2017. The findings were documented in a Threatened and Endangered Species and Habitat Review Technical Memorandum (HDR 2017c). Most of the habitat present consists of row-crop agriculture, road ditches, and, to a lesser extent, rural housing and industrial land use. One area of woodland habitat is present. No prairies, meadows, grasslands, outcrops, or alluvial islands are present in the study area, and no waterways were identified in the study area.

Vegetation, where present, is mowed ROW, with some trees and shrubs. The northern end of the study area approaches Sergeant Bluff and its surrounding industrial and suburban development. The I-29 rest area just south of Sergeant Bluff has woodland habitat (5.21 acres, with approximately 1.54 acres within the study area; HDR 2017d). Wetland delineations identified agricultural wetlands (8.61 acres), emergent wetlands (15.61 acres), scrub-shrub wetlands (0.07 acre), and forested wetlands (1.22 acres) throughout the study area (HDR 2017b). The Missouri River is approximately 3 miles west of the study area.

The following threatened and endangered species lists were obtained in fall 2016 and spring 2017 in support of the field survey and preparation of the technical memorandum, respectively; there were no changes in the species lists during that time frame:

- Iowa DNR, April 19, 2017, Listed Species in a County Woodbury County, IA, Iowa DNR Natural Areas Inventory.
- US Fish and Wildlife Service (USFWS), March 2017, Iowa County Distribution of Federally Threatened, Endangered, Proposed and Candidate Species.
- USFWS, November 9, 2016, Information for Planning and Consultation (IPaC) Endangered Species.

Table 4 summarizes all of the species included on the three lists. There is no critical habitat for any listed species in the project vicinity.

**Table 4. Threatened, Endangered, and Species of Concern in Woodbury County, Iowa**

Class	Common Name	Scientific Name	Status <sup>a</sup>	Habitat
Bird	Bald eagle	<i>Haliaeetus leucocephalus</i>	IA-S	Lakes, reservoirs, rivers with fish, and surrounding woodlands
	Barn owl	<i>Tyto alba</i>	IA-SE	Grassland with edge habitat
	Interior least tern	<i>Sterna antillarum athalassos</i>	FE; IA-SE	Bare alluvial and dredged spoil islands
	Piping plover	<i>Charadrius melodus</i>	FT; IA-SE	Bare alluvial and dredged spoil islands
Fish	Blacknose shiner	<i>Notropis heterolepis</i>	IA-ST	Cool weedy creeks, small rivers, and lakes, usually over sand
	Pallid sturgeon	<i>Scaphirhynchus albus</i>	FE; IA-SE	Large silty rivers with a diversity of depths and velocities formed by braided channels, sand bars, sand flats, and gravel bars
	Topeka shiner	<i>Notropis topeka</i>	FE; IA-ST	Small to mid-size prairie streams with good water quality and cool to moderate temperatures
Insect	Dakota skipper	<i>Hesperia dacotae</i>	FT; IA-SE	Remnants of native mixed and tallgrass prairie
	Dusted skipper	<i>Atrytonopsis hianna</i>	IA-S	Grasslands, prairies, barrens, and old fields
	Hickory hairstreak	<i>Satyrrium caryaevorum</i>	IA-S	Deciduous forests and second-growth woods in areas of rich soil
	Leonard's skipper	<i>Hesperia leonardus</i>	IA-S	Open grassy areas including native prairies, fields, barrens, and meadows
	Olympia marble	<i>Euchloe olympia</i>	IA-S	Various open areas, including prairies, foothills, lakeshore dunes, shale barrens, meadows, open woodlands
	Ottoe skipper	<i>Hesperia ottoe</i>	IA-S	Native tall-grass prairie
	Poweshiek skipperling	<i>Oarisma powesheik</i>	FE; IA-ST	High-quality tallgrass prairie
	Regal fritillary	<i>Speyeria idalia</i>	IA-S	Tallgrass prairie and other open and sunny locations such as damp meadows, marshes, and wet fields
Mammal <sup>b</sup>	Wild indigo dusky wing	<i>Erynnis baptisiae</i>	IA-S	Open woods, barrens, along highways, railroad beds, and upland fields
	Northern long-eared bat	<i>Myotis septentrionalis</i>	FT	Hibernates in caves and mines; swarming in surrounding wooded areas in autumn; and roosts and forages in upland forests during late spring and summer
Plant	Alkali muhly	<i>Muhlenbergia asperifolia</i>	IA-S	Damp meadows, moist riparian zones, and mesic disturbed areas
	Alpine rush	<i>Juncus alpinus</i>	IA-S	Lake shores, marshes, ditches, and wet meadows with calcareous soils
	Beardtongue	<i>Penstemon albidus</i>	IA-S	Open areas with sandy, rocky, well-drained soils
	Bigroot prickly-pear	<i>Opuntia macrorhiza</i>	IA-SE	Dry prairies with shallow soils over bedrock
	Black bugbane	<i>Cimicifuga racemosa</i>	IA-S	Rich woods and woodland openings
	Blue mudplantain	<i>Heteranthera limosa</i>	IA-S	Aquatic habitats with outcrops of Sioux quartzite
	Buffalo grass	<i>Buchloe dactyloides</i>	IA-S	Clay soils or bedrock outcrops
	Frost grape	<i>Vitis vulpina</i>	IA-S	Associated with sugar maple, basswood, red oak, and northern white cedar; found in low woods, stream banks, bases of bluffs, and thickets

Class	Common Name	Scientific Name	Status <sup>a</sup>	Habitat
Plant, cont.	Glomerate sedge	<i>Carex aggregata</i>	IA-S	Moist open ground, meadows, thickets, and open forests with calcareous soils
	Large-leaf pondweed	<i>Potamogeton amplifolius</i>	IA-S	Open water wetlands
	Leathery grape fern	<i>Botrychium multifidum</i>	IA-ST	Fields and open grass
	Missouri milk-vetch	<i>Astragalus missouriensis</i>	IA-S	Dry prairie with gravelly soils
	Narrow-leaved milkweed	<i>Asclepias stenophylla</i>	IA-SE	Stable prairies and limestone glades
	Prairie bush-clover	<i>Lespedeza leptostachya</i>	FT	Dry to mesic prairies with gravelly soil
	Prairie moonwort	<i>Botrychium campestre</i>	IA-S	Prairies, grassy hills, and forest openings
	Sand bluestem	<i>Andropogon hallii</i>	IA-S	Sandy plains
	Silver buffalo berry	<i>Shepherdia argentea</i>	IA-ST	Shrub-grassland communities; riparian woodlands
	Slender sedge	<i>Carex tenera</i>	IA-S	Open woodlands, woodland edges, swamps, moist prairies, disturbed meadows, and ditches
	Spear needlegrass	<i>Stipa comata</i>	IA-S	Dry gravel bluffs and ridges along streams
	Spring ladies'-tresses	<i>Spiranthes vernalis</i>	IA-ST	Dry to moist meadows, prairies, and roadsides
	Tall millet-grass	<i>Milium effusum</i>	IA-S	Moist, shady sites
	Ten-petaled mentzelia	<i>Mentzelia decapetala</i>	IA-S	Dry, rocky hillsides, steep banks and slopes, roadsides, and disturbed areas
	Tumble grass	<i>Schedonnardus paniculatus</i>	IA-S	Dry soils, pastures, and loess bluffs
	Western prairie fringed orchid	<i>Platanthera praeclara</i>	FT	Wet prairies and sedge meadows
	Woolly milkweed	<i>Asclepias lanuginosa</i>	IA-ST	Dry prairies or open woods with rocky soil
Reptile	Bullsnake	<i>Pituophis catenifer sayi</i>	IA-S	Open tracts of native grassland and sand prairies; sandy soils
	Smooth green snake	<i>Liochlorophis vernalis</i>	IA-S	Meadows, grassy marshes, moist grassy fields at forest edges, stream borders, and open woodlands

<sup>a</sup> FE = Federally Endangered; FT = Federally Threatened; IA-SE = Iowa State Endangered; IA-ST = Iowa State Threatened; IA-S = Iowa Species of Concern

<sup>b</sup> Although identified as a potential species of concern in the scope of work, the Indiana bat is not listed as a potential species residing in Woodbury County.

### Birds

Based on a lack of suitable habitat, none of the protected birds would frequent the study area. Although the study area does contain woodland habitat near the I-29 rest area, there are no large trees that would be suitable roosting or nesting habitat for bald eagle. There is also no grassland habitat for barn owl and no sandbar habitat for interior least tern or piping plover.

### Fish

There are no waterways in the study area that would contain blacknose shiner, pallid sturgeon, or Topeka shiner.



### **Insects**

Given the intensive agricultural land use and the lack of native habitats in the study area, there is no habitat for any of the federally or state-listed insects.

### **Mammals**

Woodlands may be dense or loose aggregates of trees with variable amounts of canopy closure. Suitable summer roosting habitat for the northern long-eared bat includes 10 to 15 acre tracts of woodlands, with a water source, containing potential roosts (that is, live trees and/or snags  $\geq 3$  inches diameter at breast height (dbh) that have exfoliating bark, cracks, crevices, and/or cavities). A woodland area of approximately 5 acres (approximately 1.5 acres within the Study Area) was identified. No waterways were identified within the Study Area. Consequently, suitable northern long-eared bat habitat is not present in the Study Area.

### **Plants**

There are no meadows, prairies, or open woodlands that are habitat for most of the federally and state-listed plants that could occur in Woodbury County. Marginal habitat for two state species (slender sedge, a species of concern; and spring ladies'-tresses) exists. Although they can be found in roadside ditches, neither of these species were observed during the field surveys (HDR, 2017c). Slender sedge and spring ladies'-tresses can tolerate disturbance (Hilty 2017a, 2017b). Iowa DNR identified one state-listed endangered species, bigroot prickly-pear, in its November 29, 2016, email in its response to a request for early agency coordination (see Appendix B). A past record reported the presence of this species in the southern portion of the northbound I-29 rest area. The species was not observed during the field survey. No specific conservation measures are recommended to prevent Project impact on these species.

### **Reptiles**

There are no native grasslands or sand prairies that would be suitable habitat for bullsnake. There are no meadows, forest edges, stream borders, or open woodlands that would be suitable habitat for smooth green snake.

### ***Alternative 2***

There is no suitable summer roosting habitat for the northern long-eared bat in the Study Area. Marginally suitable potential habitat for slender sedge, state species of concern, spring ladies'-tresses, state threatened, and bigroot prickly-pear, state endangered, is present in the Study Area. None of these species were observed during the field survey. Woodbury County would only disturb the area necessary for construction and would minimize its impact on wetlands and other natural habitats. Woodbury County would avoid the reported population of bigroot prickly-pear located at the far south end of the northbound I-29 rest area. Based on a review of potential threatened and endangered species habitat and the anticipated project limits, no suitable habitat for threatened and endangered species would be physically disturbed by the Project. The Project would have no effect on the aforementioned species that potentially occur within the Study Area. The Project would have no effect on all other listed species because their habitats are not present in the Study Area.

### ***No Build Alternative***

The No Build Alternative would have no effect on threatened and endangered species. As development momentum continues, it is likely that trees would be removed and ground disturbance would occur in the Study Area, which could affect marginal habitat of bigroot prickly-pear, slender sage, and spring ladies'-tresses.

### 5.3.6. Woodlands

Iowa DOT considers woodland impacts to occur when the area to be impacted consists of 2 acres or greater of forested land having at least 200 trees 3 inches in diameter at breast height or greater per acre. One woodland area was identified in the study area east of the northbound I-29 rest area. The woodland area is approximately 5.21 acres, with approximately 1.54 acres within the study area. The area immediately west of the woodland consisted mostly of scrub-shrub vegetation less than 3 inches in diameter at breast height, and the area immediately south of the woodland area consisted of sparsely distributed trees (HDR 2017d).

#### *Alternative 2*

Alternative 2 would not impact the woodland area. Construction of the interchange would occur south of the I-29 rest area.

#### *No Build Alternative*

The No Build Alternative would not impact woodlands in the study area. As development momentum continues, it is likely that additional impacts on woodland resources would occur in the study area.

### 5.3.7. Farmlands

The Farmland Protection Policy Act of 1981 (7 Code of Federal Regulations 658) is intended to minimize the extent to which federal activities, such as highway and road projects, contribute to the conversion of agricultural land to non-agricultural uses. The US Department of Agriculture, Natural Resources Conservation Service (NRCS) responded to an early agency coordination letter and indicated that if prime farmland would be affected, an NRCS farmland form would need to be prepared and submitted to NRCS (see Appendix B).

The study area is approximately 75 percent agricultural land used primarily for growing row crops like corn and soybeans. The remaining land is Iowa DOT ROW for I-29 and a small strip of UPRR ROW at the eastern edge of the study area. The study area is approximately 987 acres in size, of which 735 acres are assessed as agricultural and 958 acres are considered “prime farmland” based on US Department of Agriculture Land Classification. There are some locations in the study area that contain prime farmland that are not zoned agricultural or actively farmed. All of the 735 acres that are assessed as agricultural are actively farmed and are considered prime farmland. An NRCS Farmland Conversion Impact Rating Form (NRCS-AD-1006) was completed and submitted to NRCS. NRCS determined that farmland, as defined by NRCS in its *Part 523 – Farmland Protection Policy Act Manual* (2012), exists within the study area.

Four center pivot irrigation structures are located partially or fully within the study area (see Figure 6). The first is located directly south of 235<sup>th</sup> Street and just east of I-29. The second and third are located approximately 0.25 mile south of 235<sup>th</sup> Street between I-29 and Barker Avenue. The fourth center pivot is located approximately 0.75 mile south of 235<sup>th</sup> Street between I-29 and Barker Avenue.

Additionally, Iowa Code 6B provides authority to condemn agricultural land (defined under Iowa Code 6A.21) for ROW purposes. The code helps protect agricultural land and facilitates early coordination with potentially affected landowners. Notification is required if an agricultural parcel 10 acres or larger would require any land acquisition, regardless of the total area needed.

## ***Alternative 2***

Alternative 2 would impact 59.48 acres of prime farmland. NRCS reviewed the NRCS-AD-1006 form and determined that Alternative 2 had a score of 139 out of 260 points. Alternatives receiving a total score of less than 160 out of 260 do not require further consideration for protection. Based on this score, Alternative 2 would not warrant an in-depth site review, and the project would be cleared from significant concerns in conjunction with the Farmland Protection Policy Act.

Two center pivot irrigation structures would be impacted by Alternative 2: the center pivot directly south of 235<sup>th</sup> Street and the center pivot 0.25 mile south of 235<sup>th</sup> Street and directly east of I-29. The first center pivot would be impacted by construction of the interchange and relocation of 235<sup>th</sup> Street; approximately 10.6 acres of farmland irrigated by the center pivot would be converted to ROW. The second center pivot would be impacted by construction of a northbound exit ramp; approximately 0.3 acre of farmland irrigated by the center pivot would be converted to ROW. Impacts on the center pivots would be coordinated with the landowner, with an analysis of a loss of equipment and potential reconfiguration to determine compensation. Landowners with agricultural land, as classified by Iowa Code 6A.21, would be notified of the potential acquisition of their property and of the upcoming public hearing to be held after distribution of the EA.

## ***No Build Alternative***

The No Build Alternative would have no immediate impacts on prime farmland. As growth and development momentum continues, it is likely that additional impacts on farmland would occur in the study area.

## **5.4. Physical Environment Impacts**

Evaluating potential impacts on physical resources in the study area requires consideration of noise, visual resources, contaminated and regulated materials sites, and utilities.

### **5.4.1. Noise**

A traffic noise study was completed for the proposed interchange and access roads (HDR 2019). The study was conducted in accordance with Iowa DOT's traffic noise policy 500.07 and the requirements set forth in the FHWA Noise Standard at 23 Code of Federal Regulations 772.

Noise is generally defined as unwanted sound and is measured in terms of sound pressure level expressed in decibels (dB). The number of fluctuation cycles or pressure waves per second of a particular sound is the frequency of the sound. The human ear is less sensitive to higher and lower frequencies than mid-range frequencies; therefore, sound-level meters used to measure environmental noise generally incorporate a filtering system that discriminates against higher and lower frequencies in a manner similar to the human ear. This produces noise measurements that approximate the normal human perception of sound. Measurements made using this filtering system are termed A-weighted decibels (dB(A)). Noise levels referred to in this EA are stated as hourly-equivalent sound pressure levels ( $L_{eq}(h)$ ) in terms of dB(A).

Land use throughout the study area is predominantly agricultural and undeveloped. There are also six rural residences located in the study area.

Modeled receptors in FHWA's Traffic Noise Model Version 2.5 were identified by areas of frequent human exterior use in the study area. The receptor locations represent the most conservative (highest noise levels) receptors for their respective common noise environment. Noise abatement criteria (NAC), which are dBA

noise standards associated with different land uses, are described in Table 5. Modeled receptors are listed in Table 6 and shown in Figure 6. The locations used for the noise analysis are based on anticipated frequent human use activity areas.

**Table 5. Noise Abatement Criteria**

Activity Category	Activity Criteria dB(A)		Activity Description
	Noise Abatement Criteria (NAC)	Approaching NAC	
A	57	56	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	67	66	Residential
C	67	66	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings
D	52	51	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios
E	72	71	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A–D or F
F	-	-	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical) and warehousing
G	-	-	Undeveloped lands that are not permitted for development

Source: 23 Code of Federal Regulations 772, Appendix, Table 1 to Part 772—Noise Abatement Criteria

**Table 6. Summary of Modeled Receptors**

Receptor	Description	Location	Activity Category
1*	Residential	Banner Avenue	B
2*	Residential	Port Neal Road near 235 <sup>th</sup> Street	B
3*	Residential	Port Neal Road south of 235 <sup>th</sup> Street	B
4*	Residential	Port Neal Road south of 235 <sup>th</sup> Street	B
5*	Residential	235 <sup>th</sup> Street near Old Highway 75	B

\* Denotes field monitoring locations

**Alternative 2**

Table 7 documents that none of the modeled receptor locations would approach or exceed the NAC, and that no increases in traffic noise levels would be 10 dB(A) or more than existing noise levels. The change in relative noise levels directly attributable to predicted increases in traffic and interchange alignment for Alternative 2 in year 2040. Increases in predicted sound levels varies from 1.1 dB(A) to 8.8 dB(A) greater than the noise levels predicted for the existing year (2019) baseline. Traffic noise impacts were not identified as a result of the project; therefore, noise abatement measures were not considered and evaluated for feasibility and reasonableness in accordance with FHWA and Iowa DOT guidance.

**Table 7. Summary of Noise Results**

Modeled Receptor	NAC (approaching) dB(A)	Distance from Existing Centerline (feet)	Predicted Noise Level				
			2019 Existing Noise Level dB(A)	2040 Alt. 2 Noise Level dB(A)	Alt. 2 Build Increase Over Existing	≥ 10 dBA Increase Over Existing Noise Level	≥ Iowa DOT NAC
1	66	130	63.4	64.5	1.1	No	No
2	66	180	60.0	63.1	3.1	No	No
3	66	122	59.6	62.1	2.5	No	No
4	66	210	59.6	61.0	1.4	No	No
5	66	102	45.2	54.0	8.8	No	No

**No Build Alternative**

Noise impacts are not predicted to occur for the No Build Alternative. Noise levels would increase by approximately one dBA by design year 2040 at all receptor sites under the No Build Alternative, compared to existing conditions, due to increasing traffic volumes over time.

**5.4.2. Visual**

Currently, the study area consists of a flat, rural landscape. Actively farmed properties comprised of row crop agriculture make up a majority of the study area. The study area also contains a woodland area and scattered farmsteads. At the northernmost extent of the study area, farm fields are interrupted by residential development east of I-29 and a rail line and industrial development west of the roadway. The eastern edge of the study area also includes a rail line. At the southernmost extent of the study area, the large expanse of farm fields are again interrupted by industrial development west of the roadway and the I-29 interchange at Port Neal Landing in Salix to the south. Transmission lines cross the study area in several locations.

The view from I-29 is occasionally obstructed by trees and shrubs that line the roadside ditches. Beyond the roadway ROW, a person driving along I-29 sees farm fields, with the occasional farmstead and trees, both east and west of the roadway.

**Alternative 2**

Construction of Alternative 2 would change the visual nature of the existing rural landscape by adding an I-29 interchange and connecting access roads through the study area. The study area topography is relatively level, with shallow slopes. The maximum height of the overpass bridge would be approximately 34 feet above the surrounding landscape. Alternative 2’s interchange and access roads would be visible from surrounding residential homes and farmsteads.

A person driving on the interchange across I-29 would see farm fields, as well as woodlands and the northbound I-29 rest area to the north, and transmission lines in a few areas. A person driving on I-29 and rural roads in the study area would see the interchange and transmission lines. As development momentum continues, it is likely that the visual characteristics will change over time from a rural agricultural setting to a more industrial, commercial, and rural residential setting.

### ***No Build Alternative***

The No Build Alternative would not impact the visual characteristics of the study area. As development momentum continues, it is likely that the visual characteristics will change over time from rural agricultural setting to a more industrial, commercial, and rural residential setting.

### **5.4.3. Contaminated and Regulated Materials Sites**

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

In response to an early agency coordination request, Iowa DNR provided a map identifying several contaminated sites near the study area (see Appendix B). A regulated materials review was conducted for the study area in November 2016 and April 2017 to identify and describe regulated materials sites found in and near the study area (HDR 2017e). The reviews involved database searches and review of agency records, as well as a windshield site reconnaissance survey from existing ROW to review known sites and search for new sites. Interviews with property owners were not completed because of the minimal risk associated with sites located in the study area.

Environmental records available for sites in the study area were reviewed online to identify the possible presence of regulated materials in or adjacent to, or Superfund sites located within 1 mile of, the study area. The following online databases were reviewed in November 2016 and April 2017; no additional sites were identified in the April 2017 review:

- Iowa DNR Facility Explorer (<https://facilityexplorer.iowadnr.gov/facilityexplorer/>).
- US Environmental Protection Agency Facility Registry Service (<https://www.epa.gov/enviro/facility-registry-service-frs>)

Figure 6 shows the locations of regulated materials sites identified in and near the study area. These sites were assessed for potential risk (high, medium, low, or minimal) using criteria from the Iowa DOT Office of Location and Environment Manual (August 2009). There were no high, moderate, or low risk sites identified in the study area according to the Iowa DOT criteria.

During the initial site reconnaissance survey in November 2016, multiple farm yards and residences were noted along the roadways in the study area. Three of the farms had associated aboveground storage tanks (ASTs) located on their property; one farm along Port Neal Road had two ASTs. The ASTs ranged from approximately 250 gallons to 1,000 gallons. There did not appear to be evidence of releases from the tanks as viewed from public roadways. Based on the size of the tanks and the observations, these properties were considered to be minimal risk according to Iowa DOT criteria. Trees located between the farm yards and roadway hindered views onto some portions of the properties. There were no indications of hazardous releases observed, and no regulated sites were identified solely from the site reconnaissance survey. During

the site reconnaissance survey in April 2017 to review the expanded study area, there were no indications of hazardous releases observed, and no regulated sites were identified.

### ***Alternative 2***

The impact area for Alternative 2 is close to the farm near the intersection of Barker Avenue and 235<sup>th</sup> Street. However, the AST is outside of the impact area. There would be minimal to no risk of encountering contaminated land during construction of the proposed interchange and access roads. If any contamination above regulatory limits were encountered near any of these sites, work would be stopped and Iowa DOT would be notified. Proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted.

### ***No Build Alternative***

The No Build Alternative would not involve construction of the project, and regulated materials sites would not be affected. Petroleum contamination could possibly degrade naturally over time. As development momentum continues, it is likely that the land use will change over time from a rural agricultural setting to a more industrial, commercial, and rural residential setting, with an increased potential for increased use of regulated materials.

#### **5.4.4. Utilities**

The study area for utilities is the same as the study area for the project. Three major utilities exist in the study area: water, sanitary sewer, and electric.

There are two water lines in the study area. The first water line is located west of I-29 in interstate ROW. The water line enters the study area from the north and extends approximately 5,000 feet before branching into two lines. The first branch extends another 1,100 feet south to the southbound I-29 rest area. The second branch crosses under I-29 to the east before extending south approximately 1,500 feet to the northbound I-29 rest area. The second water line is a water main located in the Port Neal Road ROW on the west side. The water line enters the study area just north of the southbound I-29 rest area and parallels Port Neal Road for the entire length of the study area.

One sanitary sewer line is located in the study area, in the Port Neal Road ROW on the east side. The sanitary sewer line enters the study area just north of the southbound I-29 rest area and parallels Port Neal Road for the entire length of the study area.

There are two overhead power lines in the study area, and two adjacent to the study area; transmission line structures in the study area are shown in Figure 6. The first overhead power line in the study area is a 161 kilovolt (kV) / 345 kV transmission line that is located parallel to 240<sup>th</sup> Street. It enters the study area on the east and extends 0.2 mile west of I-29 before turning south and exiting the study area. The second overhead power line in the study area is a 161 kV transmission line that enters the study area north of 235<sup>th</sup> Street approximately 0.6 mile west of Old Highway 75. The line reaches 235<sup>th</sup> Street and parallels it west across I-29 and out of the study area. The first overhead power line adjacent to the study area is a three-phase transmission line on the east side of Old Highway 75. The second overhead power line adjacent to the study area is a three-phase transmission line parallel to the UPRR rail line and Port Neal Road west of I-29. The line is parallel to the UPRR rail line on the north and proceeds south to the west of Port Neal Road. From there, the line parallels Port Neal Road for approximately 0.6 mile before shifting west, away from the study area.



### ***Alternative 2***

The water line west of I-29 and the water main west of Port Neal Road would not be impacted. The sanitary sewer line east of Port Neal Road may be impacted by the connection of the interchange to Port Neal Road. Impacts are expected to be minor and would be determined during final design.

The two three-phase transmission lines adjacent to the study area would not be impacted by Alternative 2. Alternative 2 would cross the 161 kV / 345 kV transmission line that is parallel to 240<sup>th</sup> Street in the study area. Approximately 477 feet of each type of transmission line and one tower structure are located in the impact area. Impacts on the transmission line and relocation of the tower are not anticipated. Alternative 2 may impact approximately 785 feet of the 161 kV transmission line parallel to 235<sup>th</sup> Street and two associated towers. The first tower is just south of Banner Avenue and 235<sup>th</sup> Street. This tower would be relocated to accommodate a northbound entrance ramp. The second tower is just west of I-29 and may be relocated because of a southbound exit ramp. Actual impacts or avoidance of these structures would be determined during final design.

### ***No Build Alternative***

The No Build Alternative would not impact utilities. As development momentum continues, it is likely that additional public and private utilities would be constructed in the study area, and that potential reconstruction of portions of existing utilities would become necessary.

## **5.5. Cumulative Impacts**

Cumulative impacts are those that result from past, present, and reasonably foreseeable future 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 land use plans and projects in the same vicinity as the proposed project.

Several past, present, and reasonably foreseeable future projects are occurring in and near the study area. These projects were discussed in Section 2.0 – Project History and Section 3.0 – Purpose and Need for Action. In Section 2.0, Table 1 and Figure 3 show five roadway projects that have recently been completed or are in various stages of planning and design. In Section 3.0, other infrastructure improvement projects are discussed. These roadway projects and other infrastructure improvement projects are listed below.

### ***Past Actions***

The following past actions have occurred in and near the study area:

- County Road D51/260<sup>th</sup> Street (see Figure 3, Map ID 1).
- Intersection of 225<sup>th</sup> Street and Port Neal Road (see Figure 3, Map ID 2)
- Dogwood Trail (see Figure 3, Map ID 4)

### ***Present Actions***

There are no projects currently under construction in the study area.

### ***Reasonably Foreseeable Future Actions***

The following reasonably foreseeable future projects are in various stages of planning and design:

- Port Neal Road (County Road K25) (see Figure 3, Map ID 3)
- Port Neal Road (County Road K25) bridge over I-29 (see Figure 3, Map ID 5)
- Continued development of Southbridge Business Park

### ***Cumulative Impacts with Alternative 2***

Resources that could experience cumulative impacts under Alternative 2 include land use, ROW, transportation, wetlands, surface waters and water quality, floodplains, and farmlands. The recently completed roadway projects and the proposed projects listed above are consistent with SIMPCO's 2040 LRTP, Sioux City's 2005 *Comprehensive Plan*, Sergeant Bluff's *Comprehensive Plan 2012–2022*, Woodbury County's *Planning for 2025: The Woodbury County General Development Plan*, and Woodbury County's *Envision 2050* plan for economic growth in the area. Improvements to the transportation network would support the anticipated future land use and planned development in the area. As these other proposed roadway projects are constructed, the land that is currently agricultural in and near the study area is likely to be developed with or without the construction of Alternative 2. Construction of Alternative 2 would improve transportation system linkage in the area and would increase mobility in and near the study area as the planned development occurs.

The construction of Alternative 2 in conjunction with the past, present, and future projects mentioned previously would:

- have a minor impact on land use when the existing agricultural land is developed into commercial and industrial uses;
- have minor impacts on the amount of land being converted to roadway ROW;
- have impacts on the transportation network through increased connections to growing commercial and industrial areas;
- have minor impacts on wetlands and other waters of the U.S. as land use changes and development occurs in the study area. In addition, impacts on wetlands and waters of the US due to future planned development would be regulated by USACE;
- have a minor impact on the water quality in the area as development continues to occur and additional pavement is added to the area;
- have a impact on stormwater runoff as development occurs in the study area due to compliance with regulations that require onsite stormwater detention and future implementation of Iowa Statewide Urban Design and Specifications;
- have a minor impact on the 100-year floodplains as development in the study area occurs. Floodplain development permits and processes from local floodplain administrators and Iowa DNR would need to be followed before construction could occur. In addition, future planned development in the floodplain would be regulated by FEMA National Flood Insurance Program regulations, State of Iowa floodplain regulations, and Iowa Statewide Urban Design and Specifications as municipalities expand their jurisdiction into the study area;

- have a minor impact on farmlands as future development in the study area occurs, consistent with local land use plans.

In summary, the overall cumulative impacts of Alternative 2 are not considered collectively significant.

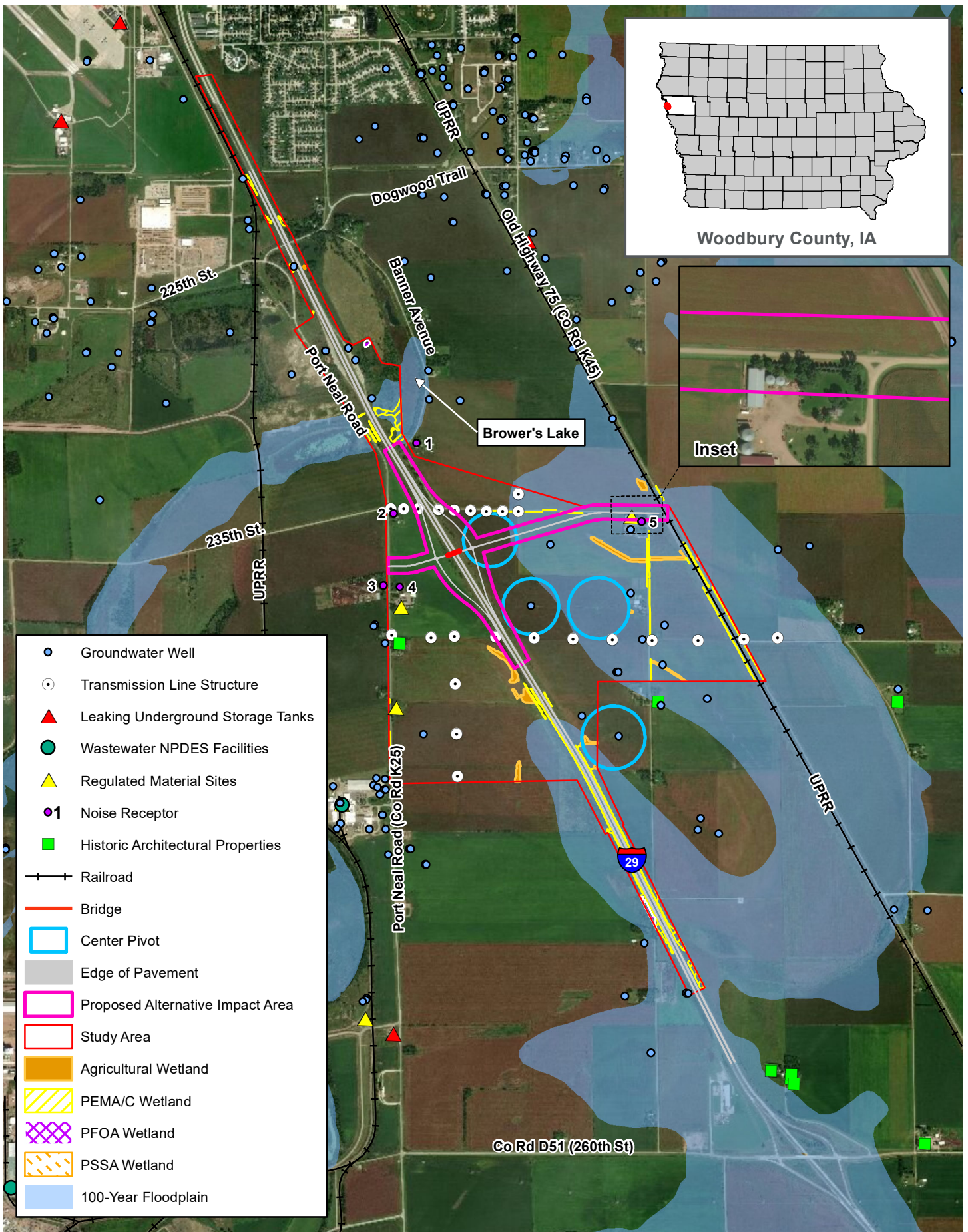
## 5.6. Streamlined Resource Summary

Resources not discussed in the body of the EA are discussed in Appendix A, Streamlined Resource Summary. The summary includes information about the resources, the methods used to evaluate them, and when the evaluation was completed.

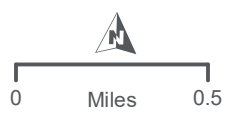
Table 8 summarizes the impacts on resources discussed in Section 5.0. The actual impacts that the proposed project would have on environmental resources are anticipated to decrease from what is shown in Table 8 as the design process continues.

**Table 8. Summary of Impacts**

<b>Resource</b>	<b>Alternative 2</b>	<b>No Build Alternative</b>
Right of Way Acquisitions (acres)	503	0
Historic Sites or Districts	0	0
Wetland Impacts (acres)	0.06	0
Surface Water and Water Quality (linear feet)	0	0
Groundwater wells	0	0
Floodplain (acres)	24.24	0
Threatened and Endangered Species Habitat (acres)	0	0
Woodlands (acres)	0	0
Farmland (acres)	59.48	0
Farmland Center Pivot Irrigation Structures (number)	2	0
Noise Impacts (number of receptors)	0	0
Visual	Minor change	No change
Contaminated and Regulated Material Sites	1	0
Utility (number of structures)	2 161-kV structures	0



- Groundwater Well
- Transmission Line Structure
- ▲ Leaking Underground Storage Tanks
- Wastewater NPDES Facilities
- ▲ Regulated Material Sites
- Noise Receptor
- Historic Architectural Properties
- +— Railroad
- Bridge
- Center Pivot
- Edge of Pavement
- Proposed Alternative Impact Area
- Study Area
- Agricultural Wetland
- ▨ PEMAC Wetland
- ▨ PFOA Wetland
- ▨ PSSA Wetland
- 100-Year Floodplain



**ENVIRONMENTAL CONSTRAINTS**  
**SOUTHBRIDGE INTERCHANGE**  
**ENVIRONMENTAL ASSESSMENT**

**FIGURE 6**

## **6.0 Disposition**

This Streamlined 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 will have no significant adverse social, economic, or environmental impacts of a level that would warrant an environmental impact statement. 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
- Federal Transit Administration – Region VII
- US Army Corps of Engineers – Rock Island District
- US Department of Agriculture, Natural Resources Conservation Service – State Conservationist and Local Office in Sergeant Bluff, Iowa
- US Department of Housing and Urban Development
- US Department of the Interior – Office of Environmental Policy and Compliance
- US Environmental Protection Agency – Region 7, National Environmental Policy Act Team
- US Fish and Wildlife Service – Rock Island Field Office

### ***State Agencies***

- Iowa Department of Agriculture and Land Stewardship
- Iowa Department of Natural Resources – Conservation and Recreation Division, Environmental Protection Division, Environmental Services Division, and Land and Water Conservation Fund Program
- Iowa Homeland Security and Emergency Management
- State Historical Society of Iowa

### ***Local and Regional Units of Government and Businesses***

- City of Salix
- City of Sergeant Bluff
- City of Sioux City
- Union Pacific Railroad
- Woodbury County Board of Supervisors
- Woodbury County Conservation Board
- Woodbury County Planning and Zoning
- Woodbury County Soil and Water Conservation District

### ***Locations where this Document is Available for Public Review***

- Federal Highway Administration, 105 6<sup>th</sup> Street, Ames, IA 50010
- Iowa Department of Transportation, 800 Lincoln Way, Ames, IA 50010

- Sergeant Bluff Public Library, 903 Topaz Drive, Sergeant Bluff, IA 51054
- Woodbury County Engineering Department, 759 E. Frontage Road, Merville, IA 51039

***Potential Permits Needed for Proposed Project***

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

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

***Status of Transportation Improvement Program***

This project is a part of a larger roadway network as outlined in SIMPCO's 2040 LRTP. The estimated cost for the project in the LRTP is approximately \$18 Million, and the project is not yet in the Iowa State Transportation Improvement Program.

## 7.0 Comments and Coordination

### 7.1. Agency and Tribal Coordination

Early agency coordination letters were sent to resource agencies on November 16, 2016. Table 9 provides the list of agencies contacted for coordination on the project. The agencies that responded are indicated in the table with the date the response was received.

**Table 9. Agency Coordination**

<b>Agency Type</b>	<b>Agency</b>	<b>Date of Response</b>
Federal	Federal Aviation Administration	11/21/16
Federal	Federal Emergency Management Agency	—
Federal	Federal Railroad Administration	—
Federal	Federal Transit Administration – Region VII	01/04/17
Federal	US Army Corps of Engineers – Rock Island District	12/07/16
Federal	US Coast Guard	12/08/16
Federal	US Department of Agriculture, Natural Resources Conservation Service	12/02/16 and 12/15/16
Federal	US Department of Housing and Urban Development	—
Federal	US Department of the Interior	—
Federal	US Environmental Protection Agency	—
Federal	US Fish and Wildlife Service	11/29/16
State	Iowa Department of Agriculture and Land Stewardship	11/21/16
State	Iowa Department of Natural Resources – Conservation and Recreation Division	11/29/16
State	Iowa Department of Natural Resources – Environmental Protection Division	11/22/16, 11/30/16, and 12/05/16
State	Iowa Department of Natural Resources – Environmental Services Division	12/7/16
State	Iowa Department of Natural Resources – Land and Water Conservation Fund Program	—
State	Iowa Department of Transportation – District Transportation Planner, District 3	—
State	State Historical Society of Iowa, State Historic Preservation Office	12/01/16
County	Woodbury County Conservation Board	12/06/16
County	Woodbury County Planning and Zoning	12/14/16
County	Woodbury County Soil and Water Conservation District	11/28/16
Local	Salix	—
Local	Sergeant Bluff	—
Local	Sioux City	—

The comments received from federal, state, county, and local agencies are summarized as follows:

- The Federal Aviation Administration indicated that the project may require formal notice and review for airspace considerations under Federal Aviation Regulation Part 77, Objects Affecting



Navigable Airspace. Several items may need to be checked, such as road, objects, and temporary construction equipment (for example, cranes) that exceed the notice criteria.

- The Federal Transit Administration recommended coordinating with the local transit agency in the event that construction could affect existing bus service.
- USACE said that a Section 404 permit will be required if dredged or fill material is placed into waters of the US. The responsible federal agency should coordinate with Iowa SHPO and USFWS.
- The US Coast Guard responded that it has no interest in the project because it does not cross a waterway over which the Coast Guard exercises jurisdiction; no Coast Guard permit would be required.
- The US Department of Agriculture NRCS in Des Moines, Iowa, recommended coordination with landowners on work or structures placed outside of acquired property. NRCS requested that Woodbury County check to see if an undertaking would affect an NRCS easement. If the undertaking would affect prime farmland, Form AD-1006 should be completed and submitted to NRCS. NRCS also recommended that Woodbury County coordinate with USFWS, Iowa DNR, Iowa SHPO, and USACE.
- The US Department of Agriculture NRCS in Woodbury County indicated that it had no additional comment for this project.
- USFWS recommended visiting the Region 3 Technical Assistance website for potential species that may be present and for habitat descriptions. USFWS also noted that bald eagles are still protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act, and that there would need to be a permit for non-purposeful take of eagles for any take or disturbance.
- The Iowa Department of Agriculture and Land Stewardship indicated that its greatest concern is soil erosion, especially during construction activities. Any soil erosion during construction needs to be promptly mitigated with procedures outlined in a written erosion control plan.
- The Iowa DNR Conservation and Recreation Division's Sovereign Lands and Environmental Review Coordinator indicated that there were records of the state-endangered bigroot prickly-pear in the study area at the far south end of the northbound I-29 rest area in an unmowed portion of the rest area. This known area should be avoided, and any untilled, undeveloped sites with sandy soil elsewhere in the study area should be checked for the presence of this species.
- The Iowa DNR Environmental Protection Division, Air Quality Bureau indicated that the following programs may apply to the project: construction permitting requirements for any new air emission units, asbestos, open burning, fugitive dust, and opacity.
- The Iowa DNR Environmental Protection Division, Flood Plain Management and Dam Safety Section responded that the proposed project does not require a state Floodplain Development Permit and may require a local Floodplain Development Permit from Woodbury County. Iowa DNR noted that it understood that coordination would occur with Iowa DOT to determine if any land or water under jurisdiction of the State of Iowa is in the study area.

- The Iowa DNR Environmental Protection Division, Land Quality Bureau provided input on known contaminated sites located near the study area.
- The Iowa DNR Environmental Services Division stated that waters of the US should not be disturbed and coordination with USACE would be required if placement of dredged or fill materials into waters of the US would occur during construction of the project. Iowa DNR requested that best management practices be implemented to control erosion and protect water quality near the project. Revegetation of disturbed areas is required, and clearing of trees should be coordinated with USFWS.
- The State Historical Society of Iowa, Iowa SHPO indicated that official documents proposing FHWA compliance with the National Environmental Policy Act and the National Historic Preservation Act must come to Iowa SHPO via Iowa DOT.
- The Woodbury County Conservation Board is not aware of any adverse environmental impact that a proposed interchange would have in the study area. The Board noted the presence of historical structures (Belfrage farm site) within the designated project boundary.
- The Woodbury County Planning and Zoning office responded that the project could impact special flood hazard areas, and as such, floodplain development permitting application(s) would be required.
- The Woodbury County Soil and Water Conservation District responded that the initially contacted individual had retired.

Tribal coordination letters were sent in December 2017. The letter included a map of the project location. One tribe, the Pawnee Nation of Oklahoma, responded to the letter, and the correspondence is included in Appendix B. The tribe stated that the proposed project location should have no potential to adversely affect any known archaeological, historical, or sacred Pawnee sites. The tribe also noted that undiscovered properties may be encountered and must be immediately reported to them under both the National Historic Preservation Act and Native American Graves Protection and Repatriation Act regulations.

## **7.2. Public Involvement**

A public information meeting was held on December 15, 2016, during the development of the alternatives for this project. The meeting was held from 5:30 to 7:30 p.m. at the Sergeant Bluff Community Center in Sergeant Bluff. Approximately 30 people attended the meeting, with most of the attendees being members of the general public. Comments received during the public meeting expressed concern over the conversion of farmland and potential impacts on rural farmsteads, increased traffic noise levels, and visual impacts of the proposed interchange. Several of the attendees were landowners and indicated that the project could affect their farmsteads that were in their families for many years and qualify as Century Farms.

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## 8.0 References

### Section 1.0

None

### Section 2.0

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### Section 3.0

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#### **Section 4.0**

None

#### **Section 5.0**

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**APPENDIX A**

**STREAMLINED RESOURCE SUMMARY**



**SOCIOECONOMIC IMPACTS SECTION:**

<b>Land Use</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Community Cohesion</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Churches and Schools</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Environmental Justice</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Economic</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Joint Development</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Parklands and Recreational Areas</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 3/4/2019
<b>Bicycle and Pedestrian Facilities</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019

**SOCIOECONOMIC IMPACTS SECTION CONTINUED:**

<b>Right of Way</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Relocation Potential</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Construction and Emergency Routes</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Transportation</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019

**CULTURAL IMPACTS SECTION:**

<b>Historic Sites or Districts</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 3/4/2019
<b>Archaeological Sites</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 3/4/2019
<b>Cemeteries</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Report
Completed by and Date:	Subconsultant3/4/2019

**NATURAL ENVIRONMENT IMPACTS SECTION:**

<b>Wetlands</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 3/4/2019
<b>Surface Waters and Water Quality</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Wild and Scenic Rivers</b>	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 3/4/2019
<b>Floodplains</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant 3/4/2019
<b>Wildlife and Habitat</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 3/4/2019
<b>Threatened and Endangered Species</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 3/4/2019
<b>Woodlands</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Farmlands</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019

**PHYSICAL IMPACTS SECTION:**

<b>Noise</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 3/4/2019
<b>Air Quality</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 3/4/2019
<b>MSATs</b>	
Evaluation:	<p>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.</p> <p>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.</p>
Method of Evaluation:	FHWA Interim Guidance Update on Mobile Source Air Toxic Analysis in NEPA Documents, September 30, 2009
Completed by and Date:	Consultant, 3/4/2019
<b>Energy</b>	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Contaminated and Regulated Materials Sites</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 3/4/2019
<b>Visual</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019
<b>Utilities</b>	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 3/4/2019

## **APPENDIX B**

### **AGENCY AND TRIBAL COORDINATION**

**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [rdavis@mecresults.com](mailto:rdavis@mecresults.com)  
**Subject:** Fwd: Woodbury County IJR EA  
**Date:** Wednesday, January 04, 2017 12:23:16 PM  
**Attachments:** [IMAGE1.img](#)

---

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Held, Beth (FTA)" <[beth.held@dot.gov](mailto:beth.held@dot.gov)> 01/04/17 12:13 PM >>>  
Good morning Mr. Nahra,

Thank you for soliciting comments from the Federal Transit Administration Region VII office on the above environmental assessment for the proposed I-29 interchange south of Sergeant Bluff.

At this time in the early coordination process, FTA does not have any specific comments, but would suggest that the County reach out to the local transit agency, if you haven't already done so, in the event that the construction of the interchange would impact any existing bus service so that their comments can be incorporated into the EA process. FTA will reserve the right to provide any additional comments once the draft EA has been prepared.

Thanks & have a great day,

Beth

*Beth Held*  
Environmental Specialist  
Federal Transit Administration - Region VII  
901 Locust Street, Suite 404 || Kansas City, Missouri || 64106  
816-329-3934 || [beth.held@dot.gov](mailto:beth.held@dot.gov)



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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: IM-029-6(278)139--13-97  
**Date:** Thursday, December 15, 2016 1:55:26 PM

---

Comment from NRCS.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Dettmann, Shawn - NRCS, Fairfield, IA" <Shawn.Dettmann@ia.usda.gov> 12/15/2016 12:28 PM >>>  
Mark Nahra

NRCS in Woodbury has no additional comment for this project.

**Shawn Dettmann**  
**Acting Assistant State Con for Field Office Operations**  
**Phone (712) 276-4648**  
**Cell (641)919-2102**  
**Cell (712)251-1962**

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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: Proposed I-29 interchange between Exits 135 and 141; Between NWSE 8 8747 and NESW 31 8847  
**Date:** Wednesday, December 14, 2016 3:09:35 PM  
**Attachments:** [2016121411133.pdf](#)  
[Floodplain Devel Permit Page 1 and 2.pdf](#)  
[Floodplain Management Ordinance Section 5.03 Pages 56-75.pdf](#)

---

Brian and Ryan:

Here is another response to our I-29 request for information from regulatory agencies.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> John Pylelo 12/14/2016 2:43 PM >>>  
Mark:

I make reference to Kelly Stone's Dec. 5, 2016 letter to you (attached). Our review confirms the potential the project could impact special flood hazard areas within FEMA Map Panel. As such floodplain development permitting application(s) will be required.

We provide the application form and ordinances by attachment. The a fillable pdf version of the application form is now available on our departmental website at:  
<https://www.woodburycountyiowa.gov/printable-forms>

John Pylelo

John Pylelo, Director  
Office of Planning and Zoning  
6th Floor  
Woodbury County Courthouse  
620 Douglas St.  
Sioux City, IA 51101

Office: 712/279-6557  
Fax: 712/279-6530  
Email: [jpylelo@woodburycountyiowa.gov](mailto:jpylelo@woodburycountyiowa.gov)  
Website:  
<http://www.woodburycountyiowa.gov/departments/planning-zoning>

\*\*\*\*\*IMPORTANT NOTICE\*\*\*\*\*

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e-mail and any printout thereof.

\*\*\*\*\*

U.S. Department of  
Homeland Security

United States  
Coast Guard



Commander  
Eighth Coast Guard District

1222 Spruce Street  
St. Louis, MO 63103-2832  
Staff Symbol: dwb  
Phone: (314)269-2381  
Fax: (314)269-2737  
Email: rob.e.mccaskey@uscg.mil  
www.uscg.mil/d8/westernriversbridges

16591.1  
December 08, 20116

Mr. Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa  
51039

Subj: WOODBURY COUNTY IJR/IM-029-6(278)139-13-97, I-29 INTERCHANGE

Dear Mr. Nahra:

Please refer to your letter of November 16, 2016 regarding the I-29 Interchange Environmental Assessment. The Coast Guard has no interest in this project as it does not cross a waterway over which the Coast Guard exercises jurisdiction. Therefore, a Coast Guard bridge permit is not required for this project.

We appreciate the opportunity to comment on the project.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric A. Washburn".

ERIC A. WASHBURN  
Bridge Administrator, Western Rivers  
By direction of the District Commander

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# STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

December 7, 2016

MR MARK NAHRA  
WOODBURY COUNTY SECONDARY ROADS DEPARTMENT  
759 E FRONTAGE RD  
MOVILLE IA 51039

RE: Woodbury County IJR / NEPA – Environmental Assessment (I-29 interchange)  
IM-029-6(278)139–13-97

Dear Mr. Nahra:

This letter is in response to the November 16, 2016 letter concerning the I-29 interchange Project in Woodbury County, Iowa. Thank you for inviting our comments on the impact of 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 mitigated through restoration, enhancement, creation and/or preservation activities. Information regarding the requirements for mitigation is described in the Federal Register (Volume 73, No. 70) dated April 10, 2008, under "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule".

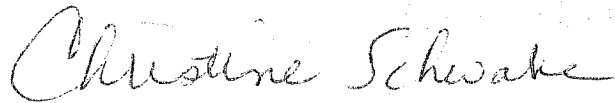
Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. Based on the information you provided, a Section 404 permit may be required for this project. A completed application packet should be submitted to the Rock Island District Corps of Engineers as well as 2 copies to the Iowa Department of Natural Resources for processing as soon as possible. The application form can be obtained at: <http://www.iowadnr.gov/InsideDNR/RegulatoryLand/FloodPlainManagement/FloodPlainDevPermits.aspx> or at <http://www.mvr.usace.army.mil/Missions/Regulatory/Permits.aspx>

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

State of Iowa permits potentially needed for your project:  
<http://www.iowadnr.gov/InsideDNR/AboutDNR/BusinessRegulatoryAssistance.aspx>

If you have any questions, please call me at (515) 725-8399.

Sincerely,

A handwritten signature in cursive script that reads "Christine Schwake". The signature is written in dark ink and is positioned above the typed name.

Christine Schwake  
Environmental Specialist



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

December 7, 2016

Regional Planning and  
Environmental Division North (RPEDN)

Woodbury County Secondary Roads Department  
Co: Mark J. Nahra, Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039

Dear Mr. Nahra:

I received your letter dated November 16, 2016, concerning the preparation of an environmental assessment for the construction of a new Interstate 29 (I-29) alignment bypassing the city of Oskaloosa. The U.S. Army Corps of Engineers, Rock Island District (District) staff reviewed the information you provided and have the following comments.

a. The lands involved are outside the geographic/real-estate boundaries of the. You must coordinate with the Omaha District to determine if your project involves any Corps of Engineers administered lands within that district. The address is as follows: 1616 Capitol Ave., Ste. 9000 Omaha, NE 68102.

b. Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army authorization under Section 404 of the Clean Water Act. We require additional details of your project before we can make a final determination of permit requirements. When detailed plans are available, please complete and submit an application packet to the Rock Island District for processing. The application should include determinations of wetlands and other waters of the United States, size estimations of impacts to those areas, and wetland types and relative functions. If you have any questions regarding permit requirements under Section 404 of the Clean Water Act, please contact Mr. Albert Frohlich of our Regulatory Branch. You may reach Mr. Frohlich by writing to our address above, ATTN: Regulatory Branch (OD-PP), or by telephoning 309/794-5859.

c. The Responsible Federal Agency should coordinate with Ms. Kathy Gourley, Iowa Historic Preservation Agency, ATTN: Review and Compliance Program, State Historical Society of Iowa, 600 East Locust, State Historic Building, Des Moines, IA, 50319 to determine impacts to historic properties.

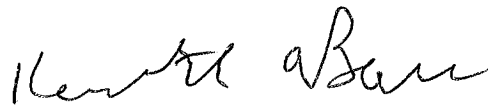
d. The Rock Island Field Office of the U.S. Fish and Wildlife Service should be contacted to determine if any federally-listed endangered species are being impacted and, if so, how to avoid or minimize impacts. The Rock Island (County) Field Office address is: 1511 - 47th Avenue, Moline, IL, 61265. Mr. Kraig McPeck is the Field Supervisor. You can reach him by calling 309/757-5800.



No other concerns surfaced during our review. Thank you for the opportunity to comment on your proposal. If you need more information, please call Ms. Bre Popkin of our Environmental Compliance Branch, telephone 309/794-5817.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth A. Barr". The signature is written in a cursive style with a large initial "K" and "A".

Kenneth A. Barr  
Chief, Environmental Planning Branch, (RPEDN)



**Woodbury County Conservation Board**  
4500 Sioux River Road Sioux City, IA 51109-1657

Phone: 712/258-0838  
Fax: 712/258-1261

Board Members:  
Cindy Bennett  
Suzan Boden  
Don Dixon  
Neil Stockfleth  
Christine Zellmer-Zant

Rick D. Schneider, Director  
Brian Stehr, Deputy Director  
Dawn Snyder, Education Director

December 6, 2016

Mark J. Nahra, Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039

Re: Woodbury County IJR / NEPA – Environmental Assessment  
IM-029-6(278)139--13-97

Dear Mr. Nahra:

The Woodbury County Conservation Board discussed your letter requesting comment on the above project for purposes of complying with the National Environmental Policy Act.

The Conservation Board and staff are not aware of any adverse environmental impact a proposed interchange could have in the designated project area. A board member did note that there exist historical structures (house and barn) on the Winston Belfrage farm site along Port Neal Road within the designated project boundary. The barn was part of the Barn Again program for historic barn structures.

Thank you for the opportunity to comment on the proposed project.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick D. Schneider", is positioned below the "Sincerely," text.

Rick D. Schneider, Director  
Woodbury County Conservation Board

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# STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

12/5/2016

Nahra, Mark  
Woodbury County Secondary Roads Dept  
759 E Frontage Rd  
Merville, IA 51039

Project Description: Environmental Assessment Request for a proposed new interchange on Interstate 29 between Exit 135 and Exit 141; (Missouri River and unnamed tributaries)

Project Location(s): Alignment between : QTR-QTR: NW, Quarter: SE, Section: 8, Township: T87N, Range: R47W, and QTR-QTR: NE, Quarter: SW, Section: 31, Township: T88N, Range: R47W, all in County: Woodbury, Iowa  
*Iowa DNR Work Record Number: 84124*

Dear Mr. Nahra:

This letter is in response to your Environmental Assessment request concerning the above referenced project. Based on the information received, the Iowa Department of Natural Resources determined that the proposed project does not require a state Flood Plain Development Permit.

The project may require a local flood plain development permit from Woodbury County, as the project impacts mapped flood plains and the county participates in the National Flood Insurance Program. If you have not yet done so, please contact John Pylelo, Flood Plain Manager at 712-279-6557 for assistance on applying for the local flood plain permit. The attached map shows the approximate project footprint relative to mapped flood plains.

I understand you will contact Seth Moore of our Department at 515-725-8464 to determine if any land or water under the jurisdiction of the State of Iowa is involved in the project area.

The applicant is responsible for complying with all other local, state and federal statutes, ordinances, rules and permit requirements applicable to the construction, operation and maintenance of the approved works. Approval through the Corps of Engineers Section 404 Permit Program may be required for this project.

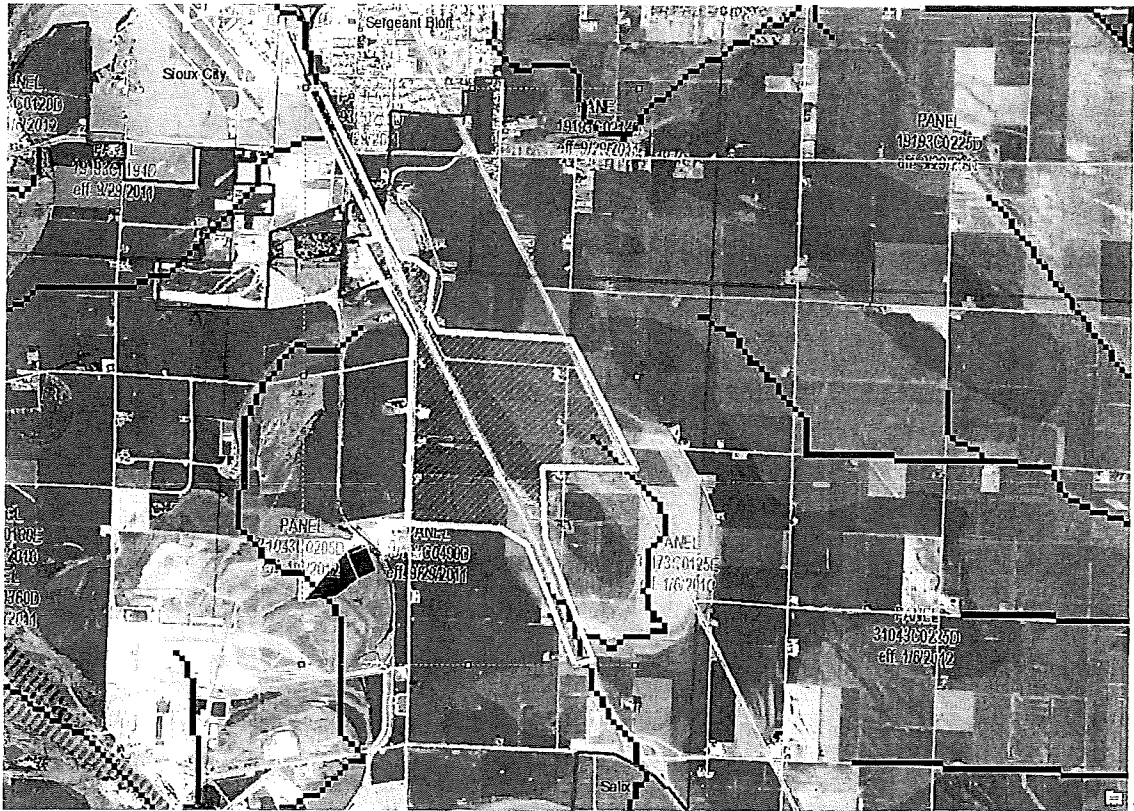
If you have any questions, please contact me by email at Kelly.Stone@dnr.iowa.gov.

Sincerely,

Kelly M. Stone, P.E.  
Flood Plain Management and Dam Safety Section

Encl.

CC: Iowa DNR Field Office: 3  
Seth Moore, Iowa DNR, 502 E 9<sup>th</sup> St, Des Moines, IA 50319  
John Pylelo, Planning & Zoning Director, 620 Douglas St Fl 6, Sioux City, IA 51101-1247  
Ward Lenz; Rock Island District, U.S Army Corps of Engineers; P.O. Box 2004; Rock Island, IL 61204-2004



Section 1

-96.53 42.361 Decimal Degrees

502 EAST 9th STREET / DES MOINES, IOWA 50319-0034  
PHONE 515-725-8200 FAX 515-725-8202 [www.iowadnr.gov](http://www.iowadnr.gov)



# STATE OF IOWA

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

DEPARTMENT OF NATURAL RESOURCES  
CHUCK GIPP, DIRECTOR

12/5/2016

Nahra, Mark  
Woodbury County Secondary Roads Dept  
759 E Frontage Rd  
Merville, IA 51039

RECEIVED  
DEC 7 2016  
COUNTY ENGINEER  
WOODBURY COUNTY IOWA  
BY \_\_\_\_\_

Project Description: Environmental Assessment Request for a proposed new interchange on Interstate 29 between Exit 135 and Exit 141; (Missouri River and unnamed tributaries)

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The applicant is responsible for complying with all other local, state and federal statutes, ordinances, rules and permit requirements applicable to the construction, operation and maintenance of the approved works. Approval through the Corps of Engineers Section 404 Permit Program may be required for this project.

If you have any questions, please contact me by email at Kelly.Stone@dnr.iowa.gov.

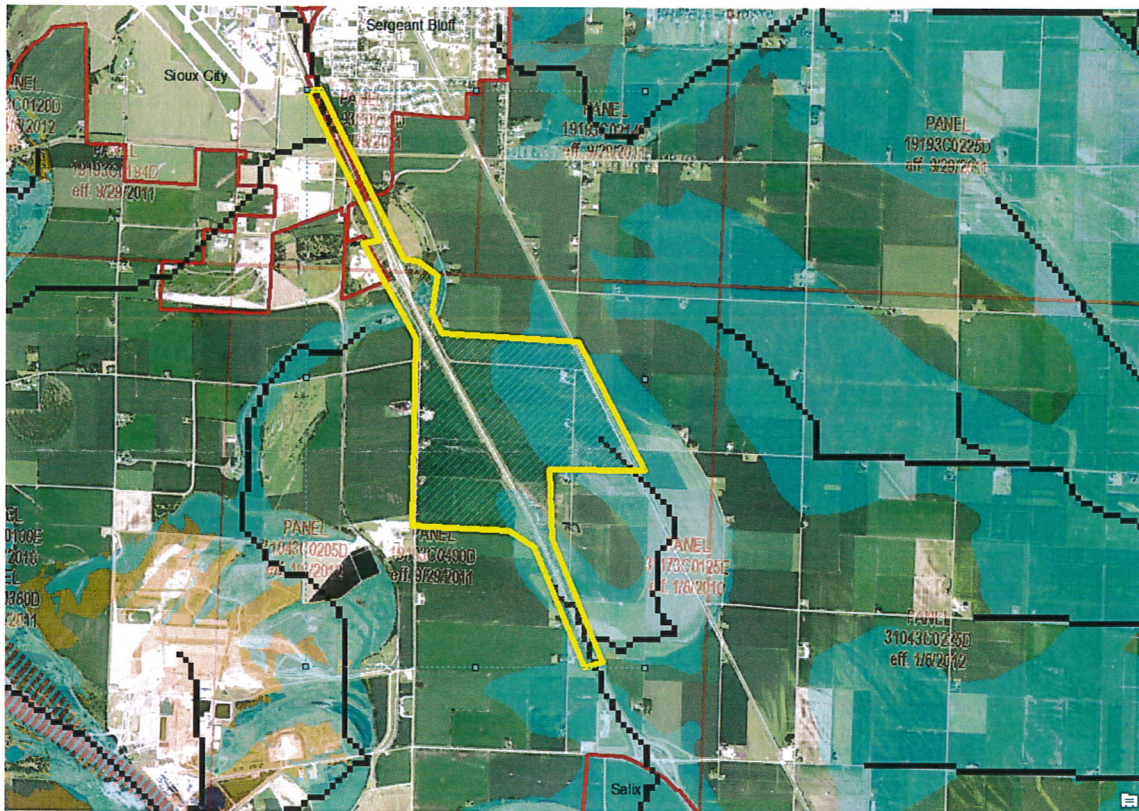
Sincerely,

Kelly M. Stone, P.E.  
Flood Plain Management and Dam Safety Section

Encl.

CC: Iowa DNR Field Office: 3  
Seth Moore, Iowa DNR, 502 E 9<sup>th</sup> St, Des Moines, IA 50319  
John Pylelo, Planning & Zoning Director, 620 Douglas St Fl 6, Sioux City, IA 51101-1247  
Ward Lenz; Rock Island District, U.S Army Corps of Engineers; P.O. Box 2004; Rock Island, IL 61204-2004





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502 EAST 9th STREET / DES MOINES, IOWA 50319-0034  
PHONE 515-725-8200 FAX 515-725-8202 [www.iowadnr.gov](http://www.iowadnr.gov)



December 2, 2016

Mr. Mark J. Nahra  
Woodbury County Secondary Roads Department  
759 E. Frontage Road  
Merville, IA 51039

RECEIVED

DEC 3 2016

COUNTY ENGINEER  
WOODBURY COUNTY IOWA  
BY: MJN

SUBJECT: Proposed Interstate 29 Interchange, Woodbury County

Dear Mr. Nahra:

In response to your inquiry dated November 16, 2016, the following resources of concern to the Iowa Natural Resources Conservation Service (NRCS) include:

- Conservation Practices and Non-Waters of the United States on Private Land. Should this undertaking involve work or structures placed outside of property solely under your control, you would need to consult with all applicable landowners for the purpose of coordinating the proposed work outside of areas that may compromise the respective landowner's USDA program eligibility (e.g., conservation practices on highly erodible lands, and any wetlands, especially wetlands considered non-waters of the US).
- Existing NRCS Conservation Easements. Please refer to <http://gdwwweb1.ftw.nrcs.usda.gov/> to see if your undertaking will affect an NRCS easement. Should an easement be affected, you may contact Sindra Jensen (515/323-2480) at the Iowa NRCS State Office for further information.
- Prime Farmland. Should this undertaking involve the conversion of prime farmland or farmland of State-wide importance to non-agricultural uses, you would need to have your project evaluated by an NRCS-authorized soil scientist. Please fill out your portion of the attached Form AD-1006 and send it along with maps showing the legal location and detail of all proposed work to Rick Bednarek, State Soil Scientist, USDA/NRCS Iowa State Office, Federal Building, 210 Walnut Street, Suite 693, Des Moines, IA 50309-2180. Should areas of your undertaking be in land already in urban development or have an existing right-of-way purchased on or before August 4, 1984, then your activities on those areas are not subject to the Farmland Protection Policy Act (FPPA).

*\* Please be advised, the Iowa NRCS discourages actions that would cause a reduction in stream length or adversely affect wetlands.*



project. These are important resources of concern and this office strongly advises you to consult with the following offices for more information:

Federally - Protected Species

U.S. Fish and Wildlife Service  
Rock Island Illinois Field Office  
1511 – 47<sup>th</sup> Avenue  
Moline, Illinois 61265  
Phone: 309/757-5800  
Fax: 309/757-5807

State - Protected Species

Iowa Department of Natural Resources  
Environmental Review for Natural Resources  
Conservation and Recreation Division  
502 East 9<sup>th</sup> Street  
Des Moines, Iowa 50319-0034  
Phone: 515/281-8967

Cultural Resources and Historic Properties

State Historical Society of Iowa  
State Historic Preservation Office  
600 East Locust Street  
Des Moines, Iowa 50319-0290  
Phone: 515/281-8743

Waters of the United States

U.S. Army Corps of Engineers  
Regulatory Branch  
Clock Tower Building  
Post Office Box 2004  
Rock Island, Illinois 61204-2004  
Phone: 309/794-5057

Thank you for your inquiry with the Iowa NRCS regarding your project proposal. It is our sincere expectation that the information provided is helpful to you. Should you require any further assistance please contact James Cronin, State Biologist, at (515) 323-2221.

Sincerely,



Grover DePriest  
State Resource Conservationist

Attachment

## FARMLAND CONVERSION IMPACT RATING

<b>PART I</b> (To be completed by Federal Agency)		Date Of Land Evaluation Request			
Name of Project		Federal Agency Involved			
Proposed Land Use		County and State			
<b>PART II</b> (To be completed by NRCS)		Date Request Received By NRCS		Person Completing Form:	
Does the site contain Prime, Unique, Statewide or Local Important Farmland? <i>(If no, the FPPA does not apply - do not complete additional parts of this form)</i>		YES <input type="checkbox"/>	NO <input type="checkbox"/>	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres:            %	Amount of Farmland As Defined in FPPA Acres:            %			
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS			
<b>PART III</b> (To be completed by Federal Agency)		<b>Alternative Site Rating</b>			
		Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly					
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site					
<b>PART IV</b> (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland					
B. Total Acres Statewide Important or Local Important Farmland					
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted					
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value					
<b>PART V</b> (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)					
<b>PART VI</b> (To be completed by Federal Agency) Site Assessment Criteria <i>(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)</i>		<b>Maximum Points</b>	Site A	Site B	Site C
1. Area In Non-urban Use		(15)			
2. Perimeter In Non-urban Use		(10)			
3. Percent Of Site Being Farmed		(20)			
4. Protection Provided By State and Local Government		(20)			
5. Distance From Urban Built-up Area		(15)			
6. Distance To Urban Support Services		(15)			
7. Size Of Present Farm Unit Compared To Average		(10)			
8. Creation Of Non-farmable Farmland		(10)			
9. Availability Of Farm Support Services		(5)			
10. On-Farm Investments		(20)			
11. Effects Of Conversion On Farm Support Services		(10)			
12. Compatibility With Existing Agricultural Use		(10)			
TOTAL SITE ASSESSMENT POINTS		160			
<b>PART VII</b> (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100			
Total Site Assessment (From Part VI above or local site assessment)		160			
TOTAL POINTS (Total of above 2 lines)		260			
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input type="checkbox"/>			
Reason For Selection:					
Name of Federal agency representative completing this form:					Date:

(See Instructions on reverse side)

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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: Woodbury County IJR / NEPA - Environmental Assessment  
**Date:** Wednesday, December 14, 2016 9:58:06 AM

---

Brian and Ryan:

This was a different response. Do you have a contact at Iowa DOT who can submit the information on our behalf. I did not realize that in this case that DOT had to be the requesting agency.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Moyile, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "SHPO106 [DCA]" <SHPO106@iowa.gov> 12/1/2016 1:21 PM >>>

Mr. Nahra,

On November 23, 2016, the Iowa SHPO received documents regarding a new interchange on I-29 in Woodbury County, IM-029-6(278)139--13-97. Official documents proposing FHWA's compliance with NEPA and the National Historic Preservation Act (NHPA) must come to this office via the Iowa DOT. Please submit this project information to your contacts at the Iowa DOT for their review and formal submittal to the Iowa SHPO.

Thank you,

State Historic Preservation Office  
[shpo106@iowa.gov](mailto:shpo106@iowa.gov) | [iowaculture.gov](http://iowaculture.gov)

Iowa Arts Council | Produce Iowa | State Historical Society of Iowa  
**Iowa Department of Cultural Affairs**

Share your stories using #iowaculture

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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: EA for I-29 in Woodbury County: DNR air quality response  
**Date:** Wednesday, November 30, 2016 3:07:39 PM

---

Brian and Ryan:

Another regulatory response.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Moyville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mna  
hra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Paulson, Christine [DNR]" <Christine.Paulson@dnr.iowa.gov> 11/30/2016 3:02 PM >>>

**Dear Mr. Nahra,**

I received a copy of your letter to Christine Schwake, dated November 16, 2016, requesting comments from the DNR regarding an environmental assessment for a proposed Interstate 29 interchange in Woodbury County, Iowa.

Iowa DNR Air Quality Bureau is the regulatory authority for the air quality programs described below. These programs may or may not apply to the proposed project for the Le Mars Municipal Airport, as described in your letter.

- **Construction Permitting Requirements**

DNR issues construction permits for new and modified sources of air pollutants. If the project should include any new air emission units, including portable equipment such as cement batch plants, asphalt plans, or limestone crushing plants, the project may be subject to these construction permitting requirements. Please visit our website at <http://www.iowadnr.gov/Environmental-Protection/Air-Quality/Construction-Permits> for more information or contact our permit hotline at 1-877-AIR-IOWA. You may also wish to review the rules for permitting contained in 567 Iowa Administrative Code (IAC) Chapter 22 (455B). The IAC is available on-line at <https://www.legis.iowa.gov/law/administrativeRules/agencies>.

- **Asbestos**

Building renovations, demolitions and training fires are potentially subject to the asbestos release prevention efforts under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for asbestos [40 Code of Federal Regulations (CFR) Part 61, Subpart M]. The DNR has been delegated the authority to administer and enforce this program.

The asbestos NESHAP rules apply **before** renovation or demolition begin, and often require a thorough inspection and lab analysis of suspect asbestos containing material, notification to the DNR and, in some cases, proper removal and disposal. For more information, please visit our website at [www.iowadnr.gov/asbestos](http://www.iowadnr.gov/asbestos). You may also contact the Iowa DNR's Asbestos NESHAP Coordinator, Tom Wuehr, at 515-494-8212.

- **Open Burning**

The DNR regulates open burning. “Open burning” is the burning of combustible materials where the products of combustion are emitted into the open air without passing through a chimney or stack. In general, open burning, including open burning of trade waste, is prohibited, except for the specific exemptions listed in the state open burning rules. Additionally, specific conditions apply if you wish to use burning during the clearing and grubbing of landscape waste. The open burning requirements are contained in 567 IAC rule 23.2(455B). The air quality rules for open burning and other information are available at [www.iowadnr.gov/openburning](http://www.iowadnr.gov/openburning).

- **Fugitive Dust**

The DNR administers regulations that pertain to fugitive dust. In general, owners or operators must take reasonable precautions to prevent fugitive dust from becoming airborne and crossing the property line. These regulations, which may be applicable to this project, are contained in 567 IAC paragraph 23.3(2)“c”, and can be found at the website indicated in the Construction Permitting Requirements section noted above.

- **Opacity**

The DNR administers regulations that pertain to opacity (visible emissions). In general, visible emissions in excess of 40 percent opacity are not allowed unless specifically exempted under rule. The rules for opacity, which may pertain to this project, are under paragraph 567 IAC 23.3(2)“d”, and are available on-line at the link indicated in the Construction Permitting Requirements section noted above.

If you have any questions, please contact me by phone at (515) 725-9510 or by e-mail at [Christine.Paulson@dnr.iowa.gov](mailto:Christine.Paulson@dnr.iowa.gov).

Best regards,  
Christine

**CHRISTINE PAULSON, Environmental Specialist Senior**

Iowa Department of Natural Resources

P 515.725.9510 | [christine.paulson@dnr.iowa.gov](mailto:christine.paulson@dnr.iowa.gov)

Air Quality Bureau | 7900 Hickman Rd., Ste. 1 | Windsor Heights, IA 50324

[www.iowaCleanAir.gov](http://www.iowaCleanAir.gov) | Air Construction Permit Hotline 877.247.4692

[WWW.IOWADNR.GOV](http://WWW.IOWADNR.GOV) Follow us: [Facebook](#) | [Twitter](#) | [Pinterest](#)



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Rock Island Field Office  
1511 47<sup>th</sup> Avenue  
Moline, Illinois 61265  
Phone: (309) 757-5800 Fax: (309) 757-5807

IN REPLY REFER  
TO:

FWS/RIFO

November 29, 2016

Mr. Mark J. Nahra, P.E.  
Woodbury County Engineer  
Woodbury County Secondary Road Department  
759 East Frontage Road  
Moville, Iowa 51039

Re: Woodbury County IJR/NEPA – Environmental Assessment  
IM-029-6(278)139—13-97

Dear Mr. Nahra:

Thank you for contacting us regarding your project. This responds to your November 16, 2016, letter regarding the initiation of an environmental assessment (EA) for the proposed Interstate 29 (I-29) interchange in Woodbury County, Iowa. We have the following comments.

With respect to any species, listed or proposed to be listed, which may be present in the area of the proposed action, we refer you to the Service's Region 3 Technical Assistance website at <http://www.fws.gov/midwest/endangered/section7/sppranges/index.html>. Habitat descriptions for these species can also be found on our website. You may use these descriptions to help you determine if there is suitable habitat within your project area. By following the instructions, you can determine what your action area is, whether listed species may be found within the action area, and if the project may affect listed species. We recommend you contact the Iowa Department of Natural Resources Iowa Department of Natural Resources, 502 E. 9th Street, Des Moines, IA 50319-0034, for information on state listed species.

The Service removed bald eagles from protection under the Endangered Species Act on August 8, 2007. However, they remain protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act of 1940 (Eagle Act). The Eagle Act prohibits take which is defined as, “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb” (50 CFR 22.3). Disturb is defined in regulations as, “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information



available, 1) injury to an eagle, 2) decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.” The National Bald Eagle Management Guidelines (Guidelines) offer guidance on how to minimize disturbance to bald eagles and increase the likelihood that actions near bald eagle nests are consistent with the Eagle Act and the Migratory Bird Treaty Act. We encourage adherence to these Guidelines.

It is unlawful to take or disturb eagles without first obtaining a permit for non-purposeful take of eagles. However, no permit would be available unless an applicant has first taken all practicable steps to avoid take of eagles. Information about eagle permits can be found online at the following link: <http://www.fws.gov/midwest/MidwestBird/eaglepermits/>

There may be wetlands within and adjacent to the project area. The Corps of Engineers is the Federal agency responsible for wetland determinations, and we recommend that you contact them for assistance in delineating the wetland types and acreage within the project boundary. Priority consideration should be given to avoid impacts to these wetland areas. Any future activities in the study area that would alter these wetlands may require a Section 404 permit. Unavoidable impacts will require a mitigation plan to compensate for any losses of wetland functions and values. The U.S. Army Corps of Engineers, Clock Tower Building, P.O. Box 2004, Rock Island, Illinois, 61201, should be contacted for information about the permit process.

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

Heidi Woeber  
U.S. Fish and Wildlife Service  
1511 47<sup>th</sup> Avenue  
Moline, Illinois 61265  
309/757-5800 Ext. 209

cc: IADNR (Moore, Schwake)  
FHWA (LaPietra)  
IADOT (Ebel)  
DOI-OEPC (Stewart)

**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: Environmental Review for Natural Resources 13681  
**Date:** Tuesday, November 29, 2016 12:03:17 PM  
**Attachments:** [ATT00001.jpg](#)  
[ATT00002.jpg](#)  
[ATT00003.jpg](#)  
[ATT00004.jpg](#)

---

Ryan and Brian:

For your information.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Moyile, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Moore, Seth [DNR]" <Seth.Moore@dnr.iowa.gov> 11/29/2016 10:48 AM >>>

Dear Mr. Nahra

IJR/NEPA-Environmental Assessment

IM-029-6(278)139—13-97

Woodbury County

Thank you for inviting Department comment on the impact of this project. The Department has records of the state-Endangered Bigroot Prickly-pear (*Opuntia macrorhiza*) in the project area.

The population is located at the far south end of the northbound rest area (east side of Interstate 29), in an unmowed portion of the rest area. Please take note that this is not the same location as the site located a short distance north of the southbound rest area (west side of Interstate 29) that is slightly outside of the project area. This known area should be avoided; in addition, any untilled, undeveloped sites with sandy soil elsewhere in the project area should be checked for the presence of this species.

Department records and data are not the result of thorough field surveys. If listed species or rare communities are found during the planning or construction phases, additional studies and/or mitigation may be required.

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

Please reference the following DNR Environmental Review/Sovereign Land Program tracking number

assigned to this project in all future correspondence related to this project: 13681.

If you have questions about this letter or require further information, please contact me at (515) 725-8464.

**SETH MOORE** Sovereign Lands & Environmental Review Coordinator



**Iowa Department of Natural Resources**

515.725.8464 | [seth.moore@dnr.iowa.gov](mailto:seth.moore@dnr.iowa.gov)

502 E. 9th Street | Des Moines, IA 50319-0034

[WWW.IOWADNR.GOV](http://WWW.IOWADNR.GOV)



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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: letters to the Woodbury County District Conservationist  
**Date:** Monday, November 28, 2016 3:56:53 PM  
**Attachments:** [ATT00001.png](#)  
[ATT00002.png](#)  
[ATT00003.png](#)  
[ATT00004.png](#)  
[ATT00005.png](#)  
[ATT00006.png](#)  
[ATT00007.png](#)  
[Public Official Mailing Email List -2016.xlsx](#)

---

Brian and Ryan:

Please remove Jerry and replace him with Christine on our contact list. Here is my latest list that I am using for the local official contact list. It will change in January as we have a new House District 16 representative and three new county supervisors. I will provide that information when I have it.

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Evans, Christine - NRCS, Sergeant Bluff, IA" <Christine.Evans@ia.usda.gov> 11/28/2016 3:40 PM >>>

Mark,

Please remove Jerry Sindt from your mailing list, he is the retired District conservationist.

Thanks,

Christine Evans  
District Conservationist  
204 First St., Ste. C1  
Sergeant Bluff, IA 51054

Natural Resources Conservation Service  
United States Department of Agriculture  
[www.ia.nrcs.usda.gov](http://www.ia.nrcs.usda.gov)  
Phone: 712-943-6727 ext. 300  
Fax: 1-855-246-1549

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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: Woodbury County IJR / NEPA - Environmental Assessment IM-029-6(278) 139--13-97  
**Date:** Monday, November 21, 2016 3:19:45 PM

---

Please find email received today.

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> <[scott.tener@faa.gov](mailto:scott.tener@faa.gov)> 11/21/2016 3:11 PM >>>

We received your letter dated 11/16/16 for the subject project and provide the following comments for your consideration.

We generally do not provide comments from an environmental perspective.

-  
Airspace Considerations

The project may require formal notice and review for airspace considerations under Federal Aviation Regulation (FAR) Part 77, Objects Affecting Navigable Airspace. To determine if you need to file with FAA, go to <http://oeaaa.faa.gov> and click on the "Notice Criteria Tool" found at the left-hand side of the page.

Several items may need to be checked such as any roads, objects, and temporary construction equipment (e.g. cranes) that exceed the notice criteria.

**FOR TRANSPORTATION STUDIES INVOLVING LONG ROUTES**

Multiple locations will need to be checked because of the length of the route. We recommend checking the route at 1 mile intervals and at increases in elevation (e.g. natural rise, bridges & overpasses).

If after using the tool, you determine that filing with FAA is required, we recommend a 120-day notification to accommodate the review process and issue our determination letter. Proposals may be filed at <http://oeaaa.faa.gov>.

More information on this process may be found at: <http://www.faa.gov/airports/central/engineering/part77/>

Please let me know if you have any questions,

Scott Tener, P.E.  
Environmental Specialist

FAA Central Region Airports Division  
901 Locust St., Room 364  
Kansas City, Missouri 64106-2325  
T 816.329.2639 | F 816.329.2611  
<http://www.faa.gov/airports/central/>

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**From:** [Mark Nahra](#)  
**To:** [Matt \[DNR\] Culp](#)  
**Subject:** Re: study area along I-29  
**Date:** Monday, November 21, 2016 3:40:43 PM  
**Attachments:** [ATT00001.jpg](#)  
[ATT00002.jpg](#)  
[ATT00003.jpg](#)  
[ATT00004.jpg](#)

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Matt:

Thank you for the quick response.

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnaahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Culp, Matt [DNR]" <Matt.Culp@dnr.iowa.gov> 11/21/2016 3:36 PM >>>  
Dear Mark,

I was provided the letter regarding this information review request as illustrated in your letter of November 16, 2016.

I will review our data base for any information that our section (Contaminated Sites Section) of IDNR Environmental Protection Division Land Quality Bureau may have for this area that might be in the vicinity . I should not take long to see what we might have for that area.  
I will try to get this review back to you by Wednesday of this week.

Regards

**MATT CULP** Environmental Specialist Senior

**Iowa Department of Natural Resources**

Phone: 515.725.8337 | [Matt.Culp@dnr.iowa.gov](mailto:Matt.Culp@dnr.iowa.gov)

FAX: 515-725-8202

502 East 9th Street | Des Moines, IA 50319



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November 21, 2016

Mr. Mark Nahra, P.E.  
Woodbury County Engineer  
Woodbury County Secondary Roads Department  
759 E. Frontage Road  
Moyville, IA 51039

**RE: Proposed I-29 Interchange (IM-029-6(278) 139—13-97) – Woodbury County – Environmental Assessment**

Dear Mr. Nahra:

The Iowa Department of Agriculture and Land Stewardship - Division of Soil Conservation and Water Quality (IDALS – DSCWQ) appreciates the opportunity to provide input regarding the proposed Interstate 29 interchange project between the existing interchanges at Sergeant Bluff and Port Neal Landing in Woodbury County, Iowa, and respectively submits the following item for comment below.

IDALS-DSCWQ greatest concern is controlling soil erosion. Erosion often occurs at significant levels during construction activities when large unvegetative areas are exposed and unprotected. Any soil erosion that does occur during construction shall be promptly mitigated with procedures outlined in a written erosion control plan to address this concern.

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

**Christine Evans, District Conservationist, Woodbury County USDA Service Center  
Natural Resources Conservation Service  
204 1<sup>st</sup> Street, Suite C1  
Sergeant Bluff, Iowa 51054  
(712) 943-6727**

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

Thank you for the opportunity to provide this information.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Gillespie". The signature is written in a cursive style and is positioned above the printed name of the signatory.

James Gillespie, Director  
IDALS/Division of Soil Conservation and Water Quality

Cc: Woodbury SWCD

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**From:** [Mark Nahra](#)  
**To:** [Goss, Brian](#); [Ryan Davis](#)  
**Subject:** Fwd: RE: study area along I-29  
**Date:** Tuesday, November 22, 2016 9:31:09 AM  
**Attachments:** [ATT00001.jpg](#)  
[ATT00002.jpg](#)  
[ATT00003.jpg](#)  
[ATT00004.jpg](#)  
[Contaminated Sites near the Study Area.jpg](#)

---

FYI

Mark

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Merville, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Culp, Matt [DNR]" <[Matt.Culp@dnr.iowa.gov](mailto:Matt.Culp@dnr.iowa.gov)> 11/22/2016 7:53 AM >>>  
Mark,

Attached is a figure that shows the known Contaminated Sites located near the Study Area identified on your figure.

I have drawn a general area near the Study Area in red line.

The Red Triangles are the locations of the sites that include:

- FMC Corporation
- Terra International
- Mid America Tanning
- and two sites near Sergeant Bluff that belong to the Iowa National Guard.

Does this assist you?

**MATT CULP** Environmental Specialist Senior

**Iowa Department of Natural Resources**

Phone: 515.725.8337 | [Matt.Culp@dnr.iowa.gov](mailto:Matt.Culp@dnr.iowa.gov)

FAX: 515-725-8202

502 East 9th Street | Des Moines, IA 50319



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**From:** Mark Nahra [<mailto:mnahra@woodburycountyiowa.gov>]  
**Sent:** Monday, November 21, 2016 3:41 PM  
**To:** Culp, Matt [DNR]  
**Subject:** Re: study area along I-29

This message was sent securely using ZixCorp.

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Matt:

Thank you for the quick response.

Mark J. Nahra, P.E.  
Woodbury County Engineer  
759 E. Frontage Road  
Moyile, Iowa 51039  
phone: 712-873-3215  
fax: 712-873-3235  
email: [mnahra@woodburycountyiowa.gov](mailto:mnahra@woodburycountyiowa.gov)

>>> "Culp, Matt [DNR]" <[Matt.Culp@dnr.iowa.gov](mailto:Matt.Culp@dnr.iowa.gov)> 11/21/2016 3:36 PM >>>

Dear Mark,

I was provided the letter regarding this information review request as illustrated in your letter of November 16, 2016.

I will review our data base for any information that our section (Contaminated Sites Section) of IDNR Environmental Protection Division Land Quality Bureau may have for this area that might be in the vicinity . I should not take long to see what we might have for that area.

I will try to get this review back to you by Wednesday of this week.

Regards

**MATT CULP** Environmental Specialist Senior

**Iowa Department of Natural Resources**

Phone: 515.725.8337 | [Matt.Culp@dnr.iowa.gov](mailto:Matt.Culp@dnr.iowa.gov)

FAX: 515-725-8202

502 East 9th Street | Des Moines, IA 50319



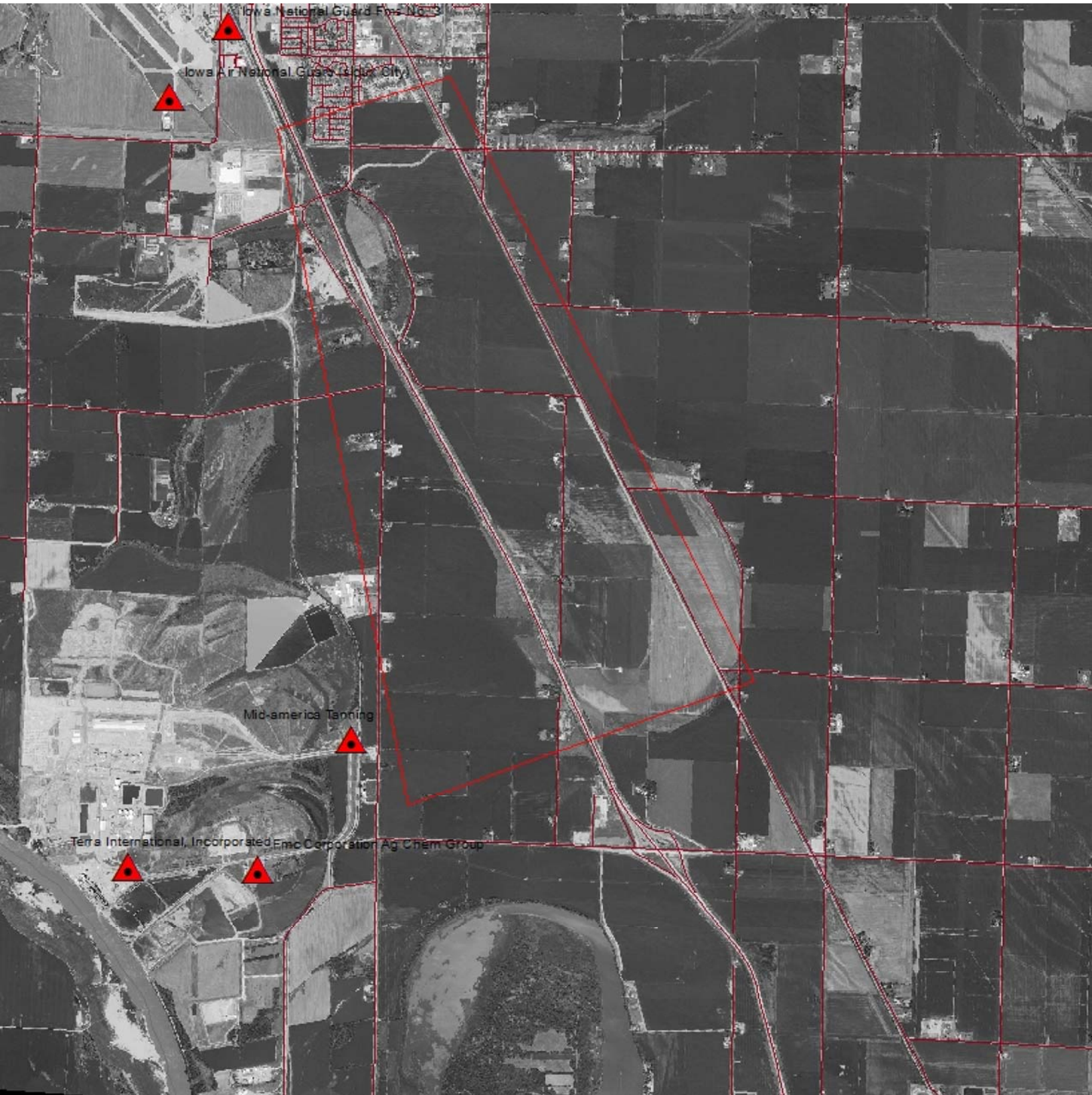
[WWW.IOWADNR.GOV](http://WWW.IOWADNR.GOV)



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www.iowadot.gov

Office of Location and Environment

800 Lincoln Way | Ames, Iowa 50010

Phone: 515.239.1975 | Email: [brennan.dolan@iowadot.us](mailto:brennan.dolan@iowadot.us)

June 20, 2019

Ref. IMN-029-6(170)139--OE-97

IM-029-6(278)139--13-97

Woodbury County

R&C: 20060197066

Ms. Sara André  
Mr. Dan Higginbottom  
State Historic Preservation Office  
600 East Locust  
Des Moines, Iowa 50319

RE: Preferred Alternative for the Proposed Southbridge Interchange Project; Woodbury County, Iowa; **No Historic Properties Affected**

Dear Sara and Dan:

Enclosed for your review and comment are supporting documents for the above referenced undertaking. You'll see the "Proposed Alternative Alignment" map that shows the preferred alternative for the project. Design efforts for the proposed location of the "Southbridge Interchange" have worked to avoid the previously identified historic properties located within study area (see our 12/13/2017 consultation). Table 1 below has been updated to show the distance between the proposed interchange bridge and these specific resources. The proposed maximum vertical profile of the bridge above the surrounding landscape measures 34 feet. Therefore, the minimal viewshed alternation in context of the distances noted in Table 1 mean that the project shall have no impact on the three historic properties noted earlier.

Table 1

Resource [SHPO Site Inventory Number]	Address	Recommendation	Notes	Approximate Distance to the Proposed Bridge
Belfrage Farm [97-05844, 97-04943, 97-04944]	2140 Port Neal Road	Listed 11/2017 (Criteria A & C)	House and Barn	1,900 feet
Pontius House [97-04945]	2414 Barker Avenue	Eligible (Criterion C)	House	4,900 feet
Ralph Johnson Structure [97-05866]	2310 Banner Ave	More Research Needed	School?	2,300 feet

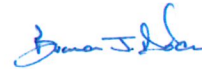
At this time, we are requesting your concurrence with our determination of **No Historic Properties Affected**. If you concur with this determination please sign the concurrence line below, add your comments, and return this letter. As with any Iowa Department of Transportation project, should any new important archaeological,



historical, or architectural materials be encountered during construction, project activities shall cease and the Office of Location and Environment shall be contacted immediately.

If you have any questions, please contact me at (515) 239-1795 or [brennan.dolan@iowadot.us](mailto:brennan.dolan@iowadot.us).

Sincerely,



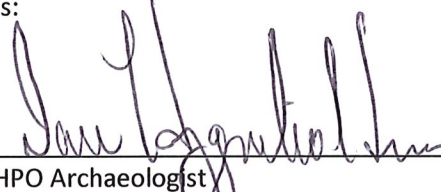
Brennan J. Dolan  
Office of Location and Environment

BJD: enclosures

- Cc: Tribes/Nations – Woodbury County
- Mike LaPietra – FHWA Iowa Division
- Tony Lazarowicz – District 3 Engineer
- Mark Nahara – Woodbury County Engineer
- DeeAnn Newell – NEPA Team Lead
- Brian Goss – HDR Inc.
- Ryan Davis – McClure Engineering

Concur:  \_\_\_\_\_ Date: 7/31/2019

SHPO Historian  
Comments:

Concur:  \_\_\_\_\_ Date: 7/5/2019

SHPO Archaeologist  
Comments: