

GORDON DRIVE VIADUCT AND BACON CREEK CONDUIT PROJECT
WOODBURY COUNTY, IOWA
NHS-012-1(37)--19-97

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

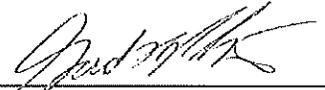
The signatures are considered acceptance of the general project location and concepts described in the environmental document unless otherwise specified by the approving officials. However, such approval does not commit to approve any future grant requests to fund the preferred alternative.



For the Iowa Division Administrator
Federal Highway Administration



For the Location and Environment Bureau
Iowa Department of Transportation



For the City of Sioux City
Sioux City, Iowa

6/22/25

Date of Approval for Public Availability

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PREFACE

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

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

Table 1: Resources Considered

SOCIOECONOMIC	NATURAL ENVIRONMENT
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Land Use <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Community Cohesion <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Churches and Schools <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Environmental Justice <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Economic <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Joint Development <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Parklands and Recreational Areas <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Bicycle and Pedestrian Facilities <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Right-of-Way <input checked="" type="checkbox"/> <input checked="" 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 type="checkbox"/> <input type="checkbox"/> Woodlands <input type="checkbox"/> <input type="checkbox"/> Farmlands
CULTURAL	PHYSICAL
<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Historical Sites or Districts <input checked="" type="checkbox"/> <input checked="" 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 and 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"/> CONTROVERSY POTENTIAL Full Acquisition of 14 businesses and 1 residence.	
<input checked="" type="checkbox"/> Section 4(f): Historic Sites : Grand Avenue Viaduct and Bacon Creek South Conduit are historic resources that would be unavoidably impacted because they are proposed for improvement.	

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Appendices

Appendix A. Streamlined Resource Summary
Appendix B. Section 106 Memorandum of Agreement
Appendix C. Agency and Tribal Coordination

Abbreviations

ADA	Americans with Disabilities Act
APE	Area of Potential Effect
BCC	Bacon Creek conduit system
BNSF	BNSF Railway
CFR	Code of Federal Regulations
City	City of Sioux City
dB	decibel
dB(A)	A-weighted decibel
EA	Environmental Assessment
EPA	U.S. Environmental Protection Agency
FHWA	Federal Highway Administration
Floyd River Levees	Sioux City – Floyd River Left Bank and Right Bank Levees
IA 12	Iowa Highway 12
Iowa DNR	Iowa Department of Natural Resources
Iowa DOT	Iowa Department of Transportation
Iowa SHPO	Iowa State Historic Preservation Office
ISIF	Iowa Site Inventory Form
LEP	limited English proficiency
$L_{eq(h)}$	hourly equivalent sound pressure levels
MOA	Memorandum of Agreement
NAC	noise abatement criteria
NEPA	National Environmental Policy Act of 1969
NRHP	National Register of Historic Places
PCR	potential for crash reduction
Project	Gordon Drive Viaduct and Bacon Creek Conduit Project
ROW	right-of-way
UP	Union Pacific Railroad
U.S. 20 BUS	U.S. Highway 20 Business
U.S. 75 BUS	U.S. Highway 75 Business
USACE	United States Army Corps of Engineers
USC	United States Code
USDOT	U.S. Department of Transportation

Chapter 1 Description of the Proposed Action

This Environmental Assessment (EA) presents the results of studies and analyses conducted to determine the potential impacts of proposed infrastructure improvements for Gordon Drive viaduct and the Bacon Creek conduit system (BCC) located in Sioux City, Iowa. For more information about the project history, see **Chapter 2**.

This EA document is being prepared under the direction of the Federal Highway Administration (FHWA), serving as the lead federal agency in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA). This EA informs the public and interested agencies of the proposed action and alternatives to the proposed action to gather feedback on the improvements under consideration. The United States Army Corps of Engineers (USACE) is serving as a NEPA cooperating agency. This EA is also being prepared to meet the environmental documentation requirements of a Section 408¹ approval request in accordance with Engineering Circular 1165-2-220. This document follows the guidelines promulgated by the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508). Additionally, 40 CFR 1506.3(a) allows the cooperating agency to adopt a NEPA document prepared by the lead federal agency. USACE will not adopt the EA, but will independently evaluate and verify the information and analysis in the EA.

1.1 Proposed Action

The Iowa Department of Transportation (Iowa DOT), in collaboration with FHWA, proposes to reconstruct a segment of Gordon Drive (U.S. Highway 20 Business [U.S. 20 BUS]/Iowa Highway 12 [IA 12]) in Sioux City by constructing a new alignment of Gordon Drive south of the existing viaduct. Gordon Drive would also receive at-grade intersection improvements. Furthermore, the BCC from Lewis Boulevard to Rustin Street will be replaced and relocated. The improvements to Gordon Drive, the connecting intersections, and the BCC constitute the Gordon Drive Viaduct and Bacon Creek Conduit Project (Project).

See **Chapter 4, Section 4.4, Proposed Alternative**, for a comprehensive description of the proposed improvements, including the location, termini, and configuration of the Project.

1.2 Project Study Area

The study area encompasses the existing Gordon Drive viaduct and the interchange at Gordon Drive and Lewis Boulevard (see Figure 1-1). The study area also includes the BCC, which runs from Lewis Boulevard on the west to Rustin Street on the east and consists of North, Center, and South Conduits (see Figure 1-2). In consideration of potential railroad reconstruction options, the study area's northern limit was extended to 4th Street and the southern limit extended to approximately Dodge Avenue.

¹ Section 408, originating from Section 14 of the Rivers and Harbors Act of 1899 and codified in 33 United States Code 408, authorizes the Secretary of the Army, on the recommendation of the Chief of Engineers of the USACE, to grant permission for the alteration or occupation or use of a USACE Civil Works project (including levees and channel improvements) if the Secretary determines that the activity will not be injurious to the public interest and will not impair the usefulness of the project.

Figure 1-1. Project Location

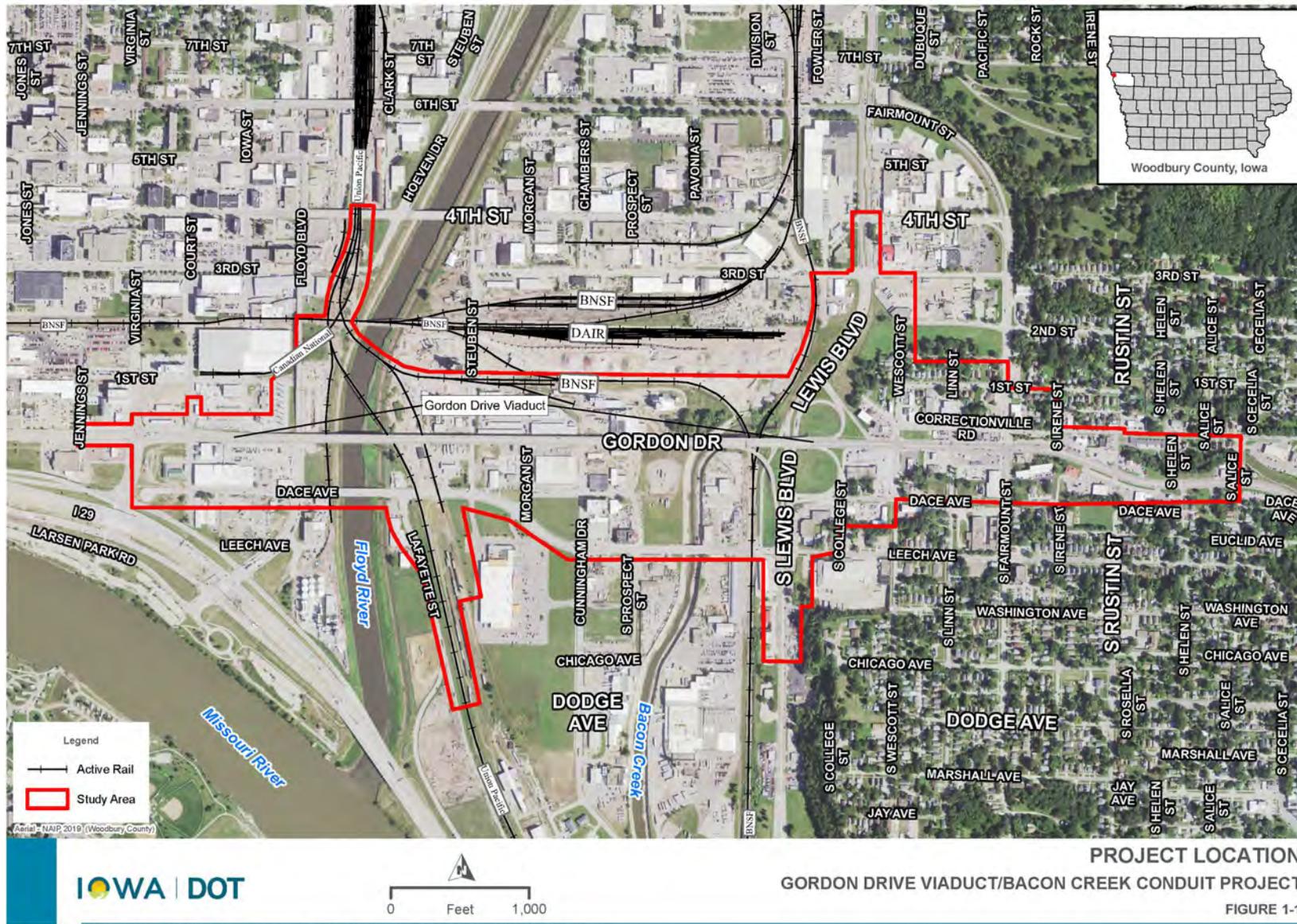
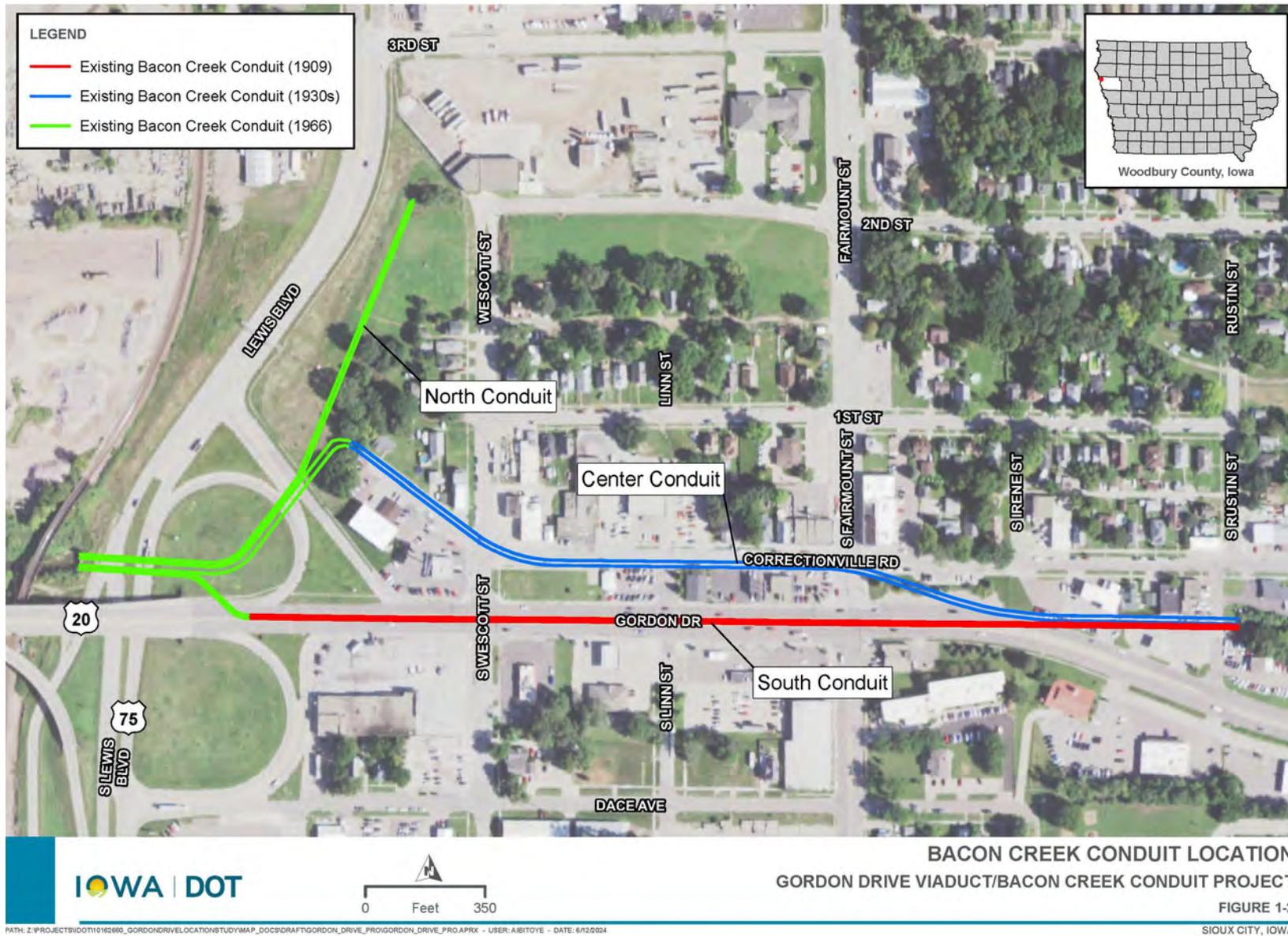


Figure 1-2. Bacon Creek Conduit



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Chapter 2 Project History

The Project is proposed by Iowa DOT and the City of Sioux City (City) in coordination with FHWA. Iowa DOT is proposing to reconstruct a segment of Gordon Drive from Virginia Street to Rustin Street, including the existing Gordon Drive viaduct, approach roadways, and the junction of Gordon Drive and Lewis Boulevard. The Project would also reconstruct segments of the BCC from approximately Lewis Boulevard to Rustin Street. Section 2.1 addresses the Project components as they were originally considered separately and then discusses their ultimate combination.

Public involvement has been a crucial part of the Project development process, which began with public and agency meetings on the Gordon Drive viaduct in 2001. As a result of the agency and public feedback, a pre-location study was initiated in 2002 and potential alternatives for the viaduct were identified. The Iowa DOT then held several more meetings to seek additional public feedback; however, the pre-location study was suspended as discussed in 2.1.1, and the viaduct project was placed on hold.

A new location study was initiated in 2019 with a public meeting to solicit input on restart of the viaduct project. Subsequently, meetings between FHWA, Iowa DOT, and the City resulted in the addition of the BCC improvements to the Gordon Drive viaduct project. A virtual public meeting was held in 2021 to inform the public and show considered concepts for the viaduct and conduit improvements. In 2022, an in-person public meeting was held to present a range of alternatives being considered and to solicit feedback. For more information about public and agency involvement, see **Chapter 7**.

2.1 Project Components

The Project comprises two main components: the Gordon Drive viaduct and the BCC.

2.1.1 Gordon Drive Viaduct

The Gordon Drive viaduct is a 3,970-foot-long, four-lane, median-divided link between the central business district and the eastern part of Sioux City. The Gordon Drive viaduct is the only roadway that provides uninterrupted east-west travel across the Floyd River, Bacon Creek, railyards and tracks, private development, city streets, and U.S. Highway 75 Business (U.S. 75 BUS)/Lewis Boulevard. The viaduct was originally constructed for two lanes in 1936, reconfigured in 1962 due to the Floyd River channel relocation, and widened to four lanes in 1965.

The May 2002 pre-location study was launched to determine the feasibility of rehabilitation and/or replacement alternatives for the Gordon Drive viaduct, and was initiated based on the findings of an extensive inspection of the structure (discussed further in **Chapter 3, Section 3.1**). However, the study concluded that continued use of the existing structure would not be practicable due to the magnitude of rehabilitation requirements (HNTB 2002) and was suspended to allow for additional data collection, extensive repairs to the structure, additional stakeholder coordination, and a more thorough assessment of the viaduct's structural integrity. The project was revisited several times over the years but was unsuccessful to re-initiate due to lack of funding and a shift in program priorities. Then in March 2019, Iowa DOT and City officials

agreed that the project had become high priority for all interested parties and initiated a new location study and EA.

Meetings among Iowa DOT, FHWA, and the City have been held over the last several years to identify and refine alternatives that would improve access to and from the viaduct and that consider constructability of the Project. For more information about the alternatives process for the viaduct, see **Chapter 4**.

2.1.2 Bacon Creek Conduit

Bacon Creek is a left-bank tributary to the Missouri River. It has a drainage area of approximately 8 square miles. Collectively, the BCC is made up of three reinforced concrete box culverts that carry stormwater underground, discharging into Bacon Creek/Floyd River Flood Control Channel. These are identified separately as the North, Center, and South Conduits (see **Chapter 1, Figure 1-2**). Construction of the BCC began in 1909, and the South (original) Conduit was completed in 1910. The Center Conduit was constructed from 1932 to 1933. The South and Center Conduits were extended and the North Conduit was constructed in the 1960s because of realignment of the Floyd River.

In April 2002, USACE conducted the Bacon Creek at Sioux City Section 22 Study (USACE 2002) to update hydrology and hydraulics of the Bacon Creek watershed, reflecting changes since the 1976 Flood Insurance Study. An applicable focus of the 2002 study was to determine whether the watershed had experienced consequential changes due to the Natural Resources Conservation Service dams, as well as channel improvements in the Gordon Mall area.

In 2020, Veenstra & Kimm Inc. performed a hydraulic analysis, *Hydraulic Report: Sioux City, Iowa, Bacon Creek Culvert Analysis*, (Veenstra & Kimm 2020), to evaluate the BCC to support potential repair or reconstruction. The focus of the analysis was to quantify the hydraulic and floodplain impacts assuming repair of the South Conduit with a concrete liner. Two different models were used to evaluate the proposed repair—HEC-RAS and XPSWMM—both of which showed increases in the 100-year water surface elevation with the concrete liner in place, therefore suggesting the need for alternative solutions.

Meetings among Iowa DOT, FHWA, and the City have been held over the last few years to consider constructability and identify alternatives that would address replacement of the South Conduit and Center Conduit to meet the needs of the increased water surface elevation. For more information about the alternatives process for the BCC, see **Chapter 4**.

2.1.3 Integration of the Two Projects

As discussed in Sections 2.1.1 and 2.1.2, the Gordon Drive viaduct and BCC components were initially separate projects. However, due to their proximity and the interconnected nature of the infrastructure, in February 2021, Iowa DOT, FHWA, and the City decided to combine them into one project. This decision was made to streamline the planning and construction process and to minimize potential conflicts and reconstruction, thereby reducing costs and maximizing the efficiency of the structural improvements. See **Chapter 4** for additional detail.

Chapter 3 Purpose and Need for Action

The purpose of the proposed Project is to sustain safe vehicular and pedestrian/bicyclist mobility on Gordon Drive (U.S. 20 BUS/IA 12) between Rustin Street and Virginia Street, and to address structural deficiencies associated with the Gordon Drive viaduct and the BCC in Sioux City.

Chapter 1, Figure 1-1 shows the Project study area.

The needs for the proposed Project are listed below:

- Poor structural condition
- Substandard geometrics and inadequate cross section
- Safety

3.1 Poor Structural Condition

This section addresses the poor structural condition of both the Gordon Drive viaduct and BCC.

3.1.1 Gordon Drive Viaduct

The Gordon Drive viaduct was originally constructed in 1936, reconfigured in 1962 to accommodate the Floyd River relocation, and widened in 1965 from two lanes to four lanes. Since the 1965 widening, primary work on the viaduct has consisted of girder strengthening and repairs, new concrete deck overlays, pier and substructure repairs, and miscellaneous maintenance repairs. Key maintenance projects after the 1965 widening included the following:

- 1976 Deck Repair (U-20-1(32)--40-97)
- 1987 Pier Repair (FN-12-1(9)--21-97)
- 1989 Beam Strengthening (FN-12-1(12)--21-97)

Two inspections (one in 1999 by Iowa DOT and one in 2001 by HNTB) found several structural concerns along the viaduct:

- Extensive deterioration of the bridge deck overlay
- Falling debris from the bridge deck
- Cracks and exposed steel on many of the piers
- Fatigue cracking on the superstructure
- Severe rust on the beams

In 2002, a fatigue analysis was conducted for the Gordon Drive viaduct. Fatigue cracking appeared on the superstructure, which is the portion of the bridge mounted on top of the bridge supports. The fatigue cracking showed that the steel members were weakening due to repeated applied loadings (such as the recurring load of heavy trucks) on the superstructure (HNTB 2002).

The fatigue analysis results showed that a major portion of the viaduct had less than 50 years of remaining safe fatigue life; in many locations, the fatigue life had already been exceeded.

Iowa DOT has already performed mitigation for a substantial number of fatigue cracks. Due to the extensive distribution of the fatigue-prone details throughout the viaduct superstructure, more than 90 percent of the steel superstructure would need to be replaced to address all fatigue issues. The structure is beyond the end of its design life. A photograph showing deficient conditions is provided as Figure 3-1.

Figure 3-1. Cracking and Spalling of Pier



Following the 1999 and 2001 inspections, major repairs were completed, including a viaduct rehabilitation project in 2005, a new bridge deck overlay in 2008, deck joint repairs in 2013, and pier repairs in 2018. Epoxy injection, which has an expected lifespan of approximately 5 years, was completed in early 2023. However, these repairs provide only a temporary solution, and the lifespan of the intermittent repairs will expire relatively soon.

A summer 2022 site assessment of the Gordon Drive viaduct for a planned 2024 maintenance project revealed bridge pier condition issues that required the closure of the eastbound outside lane of the viaduct and the eastbound-to-southbound ramp until a viaduct emergency repair project was completed in November of that year. The closure was required for the safety of the traveling public. During the repair project, eastbound Gordon Drive to southbound Lewis Boulevard traffic was detoured onto southbound Fairmount Street, to Leech Avenue, and to southbound Lewis Boulevard. Another viaduct maintenance project started in March 2024 to extend the service life of the viaduct. Routine maintenance is typically needed every 2 to 3 years.

Because of its structural condition, the Gordon Drive viaduct had been restricted to a maximum gross vehicle weight of 40 tons. Iowa has legal trucks in its state inventory that weigh 45 and 48 tons, so those vehicles are unable to use Gordon Drive, requiring a detour and increased travel distance. In May 2024, during scheduled repairs, degradation of piers 4 and 10 was found to be more than anticipated and both westbound lanes and one eastbound lane were closed for temporary shoring and repairs. Further, Iowa DOT set a 10-ton load limit until the repairs were completed. After further inspection and structural evaluation in June 2024, Iowa DOT permanently limited the viaduct to a single lane in each direction and reduced the load restriction to 20 tons. Iowa DOT has contingency plans for reduced load limits and rerouting traffic as

warranted, but continued maintenance will not fix either the need for lane reductions or the reduced load rating.

Table 3-1 shows an average annual cost of approximately \$415,000 per year over a 20-year time frame. While the maintenance and repair activities performed since 2000 were to keep the viaduct operational until a permanent solution was identified, the 2022 project was an emergency required to address urgent pier condition issues.

Table 3-1. Major Maintenance Projects and Costs on the Gordon Drive Viaduct

Project Type	Project Number	Year	Cost (\$)
Deck repair	U-20-1(32)--40-97	1976	Cost not available
Pier repair	FN-12-1(9)--21-97	1987	Cost not available
Beam strengthening	FN-12-1(12)--21-97	1989	Cost not available
Bridge rehabilitation	BRFN-012-1(22)--39-97	2005	360,000
Bridge deck overlay	BRFN-012-1(24)--39-97	2008	5,100,000
Deck joint repair	MB-012-3(514)4--77-97	2013	100,000
Pier repairs	MB-012-3(515)5--77-97	2018	50,000
Emergency pier repair	NHSN-012-1(047)--2R-97	2022	450,000
Epoxy injection	Maintenance	2023	40,000
Bridge maintenance	BRF-012-1(046)--38-97	2024	2,450,000
Total Cost			8,300,000

The costs of continued maintenance and repair projects on the viaduct are expected to increase because the viaduct's service life of 75 years has already been exceeded. The Iowa DOT 2023 Bridge Condition Report shows that of the 56 piers, 33 original piers (59 percent) would need to be replaced to maintain the viaduct for an additional 10 years. To keep the viaduct in service without replacement, a repair project that could exceed \$30 million in current year funds would be required within the proposed replacement timeline and would entail deck replacement, hinge replacement, pier repair, and strengthening (see Table 3-2). This cost estimate is likely low due to inflation and exclusion of traffic control and other incidental costs.

Table 3-2. Anticipated Work and Costs for Temporary Gordon Drive Viaduct Rehabilitation

Project Type	Cost (\$)
Hinge replacement	1,700,000
Deck replacement	19,290,000
Pier repair	1,000,000
Strengthening	500,000
Contingency	5,000,000
Mobilization	2,500,000
Total Cost	30,000,000

3.1.2 Bacon Creek Conduit

Under Gordon Drive and east of Lewis Boulevard lies the BCC, which is also in poor condition. As discussed in **Chapter 2**, the BCC collectively refers to three buried conduits, identified as the North, Center, and South Conduits (see **Chapter 1, Figure 1-2**). Condition surveys completed for the City during the last 4 years indicate that the South Conduit has deteriorated beyond where repair and rehabilitation could provide a reasonable value and extended lifespan. The evaluations for the North and Center Conduits indicate approximately 40 years of remaining service life with normal maintenance. However, regardless of structural condition, the BCC has insufficient capacity to handle 100-year flood events, as discussed in Section 3.2.2.

The initial component of the South Conduit was constructed in 1909 and has extensive concrete spalling with exposed and corroded reinforcing steel. The City evaluated the South Conduit for repairs to extend its service life and estimated construction costs at approximately \$4.7 million in 2019. Those costs do not include field survey, aesthetics, right-of-way, legal, administrative, environmental, and utility relocation. The repairs would involve lining the conduit interior, which would slightly reduce the cross section and capacity of the conduit and further exacerbate the inadequate conveyance of storm flow (see Section 3.2). The South Conduit lies beneath Gordon Drive for much of its extent and presents a structural risk to the overlying roadway.

3.2 Substandard Geometrics and Inadequate Cross Section

This section addresses the substandard dimensions of components of both the Gordon Drive viaduct and BCC.

3.2.1 Gordon Drive Viaduct

Gordon Drive traverses the Gordon Drive viaduct and serves as an Iowa state highway, a U.S. business highway, and a major east-west arterial street in Sioux City. Additionally, Gordon Drive provides an uninterrupted local corridor to the downtown area from areas east of Lewis Boulevard. Average daily traffic volumes for Gordon Drive along the viaduct are 29,400 vehicles, of which 2.2 percent are trucks. Future average daily traffic is projected at 30,600 vehicles in 2030 and 32,900 vehicles in 2050. The Gordon Drive viaduct is 3,970 feet long, with two 26-foot-wide roadways (two 12-foot-wide lanes with a 2-foot-wide outside shoulder for both westbound and eastbound lanes), a 4-foot-wide median, and an approximately 4-foot-wide sidewalk on the north side of the viaduct.

The Gordon Drive viaduct has an inadequate cross section because of the width of the sidewalk. The pedestrian accommodation along the narrow sidewalk inhibits snow removal and two-way pedestrian traffic (see Figure 3-2). The City currently closes the Gordon Drive viaduct sidewalk when accumulated snow is present. The current Gordon Drive viaduct sidewalk does not meet Iowa DOT design¹ standards for sidewalks due to its narrowness and snow removal challenges.

¹ Iowa DOT standard design for sidewalks was jointly developed by Iowa Statewide Urban Design and Specifications (SUDAS) and Iowa DOT based on the July 26, 2011, "Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way" and in accordance with federal regulations (23 CFR 652 and 28 CFR 35). They are used by all governmental entities in Iowa, including Sioux City.

Figure 3-2. Substandard Pedestrian Sidewalk (northeast end of viaduct)



The Gordon Drive viaduct spans five tracks of two different railroads: Union Pacific Railroad (UP) and BNSF Railway (BNSF). The American Railway Engineering and Maintenance-of-Way Association design standards require 23 feet 6 inches of vertical clearance over railroad tracks. BNSF guidelines require the same clearance, but UP standards are less restrictive and require 23 feet 4 inches of vertical clearance. The existing Gordon Drive viaduct provides sufficient vertical clearance to the UP tracks; however, because the existing viaduct descends to grade on its east end, it provides only 19 feet 7 inches of clearance over BNSF's mainline track. This amount of vertical clearance is substandard and impedes BNSF's ability to run double-stacked trains through the area.

3.2.2 Bacon Creek Conduit

The BCC conveys flood flow from Bacon Creek and has an inadequate cross section causing insufficient capacity for 100-year floods. The approximate lengths and dimensions of the conduits are as follows:

- North Conduit: 1,200 feet long, varying in height from 8 to 10 feet, with a width of 8 feet
- Center Conduit: 2,720 feet long, varying in height from 10 to 12 feet and varying in width from 12 to 15 feet
- South Conduit: 2,530 feet long, varying in height from 7 to 8 feet and varying in width from 7 to 10 feet

Hydrologic and hydraulic modeling, conducted in support of floodway delineation, has indicated that during a 100-year flood event, the South and Center Conduits carry approximately

70 percent of the approaching flows at the Rustin Street inlet. The conduits are undersized to fully convey a 100-year flood event, contributing to mapped flood hazards downstream of the Rustin Street inlet when stormwater bypasses the conduits with flows exceeding the conduits' capacity. Given climate change and anticipated stronger and more localized storms, the conduits lack resiliency to address future storm flow events.

3.3 Safety

Past rehabilitation and ongoing maintenance of the Gordon Drive viaduct have provided a structurally safe, though load-restricted and lane-restricted, route along Gordon Drive. The viaduct is continually monitored to facilitate safe travel for the public.

Gordon Drive is supported by the viaduct and South Conduit infrastructure for most of its length throughout the study area. Consequently, there is a safety risk associated with a supported roadway. Iowa DOT has initiated traffic plans to reduce the viaduct's load along with an emergency action plan for BCC failure. In June 2024, based on Iowa DOT's assessment of structural integrity of the viaduct and consideration of traffic safety, the load restriction was lowered to 20 tons, and traffic was limited to two lanes.

3.3.1 Measuring Safety Performance

Iowa DOT has developed a methodology to evaluate the relative safety performance of intersections and road segments across Iowa and has rated study intersections and segments with this methodology. It uses a potential for crash reduction (PCR) rating to evaluate safety based on the number of crashes per year compared to the expected number of crashes per year per intersection or road segment. The difference between these two numbers is the potential reduction in crashes, referred to as the PCR value. A positive PCR value means there is a potential to reduce crashes, while a negative PCR value (less than zero) means that the intersection or segment is performing better than predicted.

This methodology has three levels of rated safety performance for intersections and segments:

- High PCR level: ≥ 1
- Medium PCR level: ≥ 0.2 and < 1
- Negligible PCR level: < 0.2

3.3.2 Intersections

Based on 2016 to 2020 crash data, the intersection of Lewis Boulevard and Leech Avenue has a high PCR level of 2.63. This intersection is near the middle of the study area and has the potential for a reduction in crashes.

3.3.3 Road Segments

Two short road segments on Lewis Boulevard have high PCR levels:

- Immediately south of the south ramp terminal has a PCR value of 1.54.
- Northbound Lewis Boulevard to westbound Gordon Drive ramp has a PCR value of 1.34.

See **Chapter 1, Figure 1-1** for location detail for Lewis Boulevard, Leech Avenue, and the westbound Gordon Drive ramp.

Chapter 4 Alternatives

This chapter discusses the alternatives and concepts considered to address the purpose and need of the Project. A range of alternatives was developed for the Gordon Drive viaduct, including the intersections and connection roads at Lewis Boulevard, Cunningham Drive, and Floyd Boulevard. Various concepts were considered for the BCC. The No-Build Alternative, the alternatives and concepts considered but dismissed, the development of combined alternatives for both the Gordon Drive viaduct and BCC, the alternatives carried forward, and the Proposed Alternative are discussed below. Chapter 4 figures are located at the end of this chapter.

4.1 No-Build Alternative

The No-Build Alternative entails no new construction to the existing structure of the Gordon Drive viaduct and the BCC, with only routine maintenance being performed.

The existing viaduct on Gordon Drive (U.S. 20 BUS/IA 12) between Virginia Street and Rustin Street would continue to exhibit substantial structural deficiencies and deterioration that could precipitate structural failure. **Chapter 3, Section 3.1.1** documents that in June 2024, Iowa DOT permanently limited the viaduct to a single lane in each direction and reduced the load posting to 20 tons. Routine maintenance is insufficient to rectify the structural issues, load limits, and lane restrictions on the existing Gordon Drive viaduct.

In terms of mobility, the No-Build Alternative would not enhance the safe mobility of vehicular, pedestrian, or bicycle traffic. The inadequate sidewalk width, and the associated necessity of closing the sidewalk during snow events, would not be addressed. Also, the substandard vertical clearance over the BNSF railroad track would remain.

Structural concerns associated with the South Conduit of the BCC would also remain unaddressed and would continue to pose a risk to the integrity of the overlying roadway. Additionally, the inadequate flood flow conveyance of the BCC would remain, along with associated flood risks. The No-Build Alternative would not change current conditions of the Sioux City – Floyd River Left Bank and Right Bank Levees (Floyd River Levees).

In conclusion, the No-Build Alternative fails to address the purpose and need of the Project. Regardless, the No-Build Alternative is carried forward to provide a baseline for comparison of impacts with viable and reasonable build alternatives.

4.2 Gordon Drive Viaduct – Alternatives Analysis

4.2.1 Gordon Drive Viaduct Alternatives Considered but Dismissed

The following alternatives for the Gordon Drive Viaduct were considered but ultimately dismissed for reasons described below. Figure 4-1 offers more details regarding the locations of these alternatives.

Build on New Location, Leaving Viaduct in Place

The Build on New Location, Leaving Viaduct in Place Alternative (Yellow) would build a new viaduct in a new, undetermined location, while leaving the existing viaduct in place. This

alternative, including associated sub-alternatives,¹ would require continued maintenance of the existing viaduct. It would also require that the existing structural and fracture-critical viaduct deficiencies be addressed, which would inherently and adversely affect the historic integrity of the bridge. Additionally, leaving the viaduct in place would not address the substandard vertical clearance over the BNSF railroad track that the viaduct spans. This alternative would not change current conditions of the Floyd River Levees. Finally, it is not reasonable to leave the viaduct in place because the existing piers would not align with the new substructure and would adversely affect Floyd River and Bacon Creek hydraulics. For these reasons, the Build on New Location, Leaving Viaduct in Place Alternative was dismissed and was not carried forward for detailed analysis.

Rehabilitation of Viaduct for Reuse

The Rehabilitation of Viaduct for Reuse Alternative (Yellow) would rehabilitate the existing viaduct in its current location for continued vehicular use. This alternative would not change current conditions of the Floyd River Levees. Rehabilitation of the viaduct for reuse would require extensive and expensive repairs of both the superstructure (deck placement and supporting members, including girders and bearings) and the substructure (piers and abutments). **Chapter 3, Section 3.1.1** details numerous structural and geometric deficiencies that would need to be addressed on a structure that is already beyond the end of its design life. Repairs would only provide a temporary solution, and routine maintenance would be needed every 2 to 3 years. Replacement of all deficient bridge components would alter the historic character of the bridge and its historic integrity. For these reasons, the Rehabilitation of Viaduct for Reuse Alternative was dismissed and was not carried forward for detailed analysis.

Relocate Viaduct for Reuse

The Relocate Viaduct for Reuse Alternative (Yellow) would disassemble and relocate the existing viaduct to an undetermined location for continued use of vehicular and pedestrian traffic. This alternative would not change current conditions of the Floyd River Levees. The viaduct, constructed of 11 units varying from approximately 175 to 510 feet long and 68 feet wide, is a fracture-critical structure. Disassembling its components for reuse as a bridge structure is not reasonable due to its size and condition. The original piers, a historic-defining component constructed in the 1930s, could not be moved. Even if the viaduct could be disassembled, moved, and reassembled for reuse in another location, rehabilitation would still be required to address structural deficiencies. For these reasons, the Relocate Viaduct for Reuse Alternative was dismissed and was not carried forward for detailed analysis.

North Viaduct Replacement

The North Viaduct Replacement Alternative (Red) would build a new viaduct north of the existing viaduct, with traffic maintained on the existing viaduct during construction. This alternative would not change current conditions of the Floyd River Levees. However, this alternative would have a high risk of encountering contamination from a former manufactured gas plant site and would require relocating a large electric substation and several high-voltage electric transmission lines currently located north of the west end of the viaduct. Additionally, this alternative would necessitate the acquisition and potential relocation of two large businesses

¹ Sub-alternatives included maintaining the viaduct for non-vehicular use and closing the viaduct while leaving it in place.

and two small businesses located north of the existing viaduct. The crossing would be longer due to the nearly parallel alignment of the BCC at the eastern end of the viaduct, which then curves to the southwest. Vertical clearance of the UP bridge over Floyd Boulevard is also a concern. For these reasons, the North Viaduct Replacement Alternative was dismissed and was not carried forward for detailed analysis.

South Adjacent Viaduct Replacement with Minimal Railroad Realignment

The South Adjacent Viaduct Replacement (Green) with Minimal Railroad Realignment Alternative (Dashed Green) would (1) construct a new viaduct 10 feet south of the existing viaduct, (2) close a railroad spur, and (3) realign the UP mainline to share track with the BNSF spur to the Transco facilities. This alternative would not change current conditions of the Floyd River Levees. The initial concept for proposing to realign the railroad aimed to facilitate a new intersection at Gordon Drive and Floyd Boulevard; however, further analysis indicated that the proposed Floyd Boulevard intersection would not function efficiently even with railroad realignments. For these reasons, the South Adjacent Viaduct Replacement with Minimal Railroad Realignment Alternative was dismissed and was not carried forward for detailed analysis.

Far South Viaduct Replacement with No Railroad Realignment

The Far South Viaduct Replacement with No Railroad Realignment Alternative (Solid Blue) would build a new viaduct approximately 100 feet south of the existing viaduct. This alternative would not change current conditions of the Floyd River Levees. Traffic would be maintained on the existing viaduct during construction of the proposed viaduct. The existing viaduct would be demolished after construction of the proposed viaduct.

Constructing the new viaduct farther south of the existing viaduct would affect access points to more business and require more right-of-way (ROW) than the South Adjacent alignment described above. Additionally, connecting the new Gordon Drive viaduct to the east and west of the viaduct would be more challenging due to the need for larger and more complex roadway angles to tie into the existing infrastructure. In comparison to alternatives closer to the existing viaduct, this alternative would have a larger physical footprint (more total acquisitions and less usable remnants from partial acquisitions) without any offsetting benefits. For these reasons, the Far South Viaduct Replacement with No Railroad Realignment Alternative was dismissed and was not carried forward for detailed analysis.

Far South Viaduct Replacement with Full Railroad Realignment

The Far South Viaduct Replacement (Blue) with Full Railroad Realignment Alternative (Dashed Blue) would construct a new viaduct approximately 100 feet south of the existing viaduct and realign all nearby railroads. This would include substantial railroad realignments, including adjusting the UP mainline to run parallel to the existing BNSF mainline, closing an adjacent railroad spur, and closing the BNSF north access to Transco. This alternative would not likely change current conditions of the Floyd River Levees; removal of railroad spurs would occur within the 500-foot critical zone of the levee system but not within levee ROW. The goal of the railroad realignments was to create a new at-grade roadway intersection at Gordon Drive and Floyd Boulevard.

This alternative would also involve changes to the local roadway network, such as:

- Add a north frontage road along existing Gordon Drive
- Closing Steuben Street south of the realigned UP mainline
- Closing the existing intersection of Floyd Boulevard and Dace Avenue
- Constructing a new intersection at Gordon Drive and Expo Center Drive
- Closing Leech Avenue east of the new realigned UP track
- Realigning Bluff Road at the south end of the study area

Due to the high costs and lack of clear benefits to the traveling public utilizing Gordon Drive, this alternative is not preferred. Additionally, local stakeholders, including the Siouxland Chamber of Commerce, did not support the railroad relocation, except where it was necessary to facilitate an at-grade intersection at Floyd Boulevard and Gordon Drive.

For these reasons, the Far South Viaduct Replacement with Full Railroad Realignment Alternative was dismissed.

4.2.2 Gordon Drive Viaduct – Alternatives

South Adjacent Viaduct Replacement with No Railroad Realignment (Alternative 1)

Alternative 1 (Green) would construct a new Gordon Drive viaduct on a south-shifted alignment, with no railroad realignment. This alternative would not change current conditions of the Floyd River Levees. This alignment would connect to the existing Gordon Drive/Virginia Street intersection and shift approximately 10 feet south of the existing viaduct, with a single continuous viaduct extending across Floyd River and Bacon Creek and a partial cloverleaf interchange at Lewis Boulevard. The viaduct would include pedestrian accommodation on the south side, including a 14-foot-wide mixed-use path. The southern shift of Gordon Drive would be back on its existing alignment at the Linn Street intersection. Figures 4-2 and 4-3 show the western and eastern portions, respectively, of Alternative 1.

The new viaduct would be built prior to the demolition of the existing viaduct, allowing uninterrupted traffic flow. Once the new viaduct is completed, the existing viaduct would then be demolished. Construction would necessitate the acquisition and demolition of three buildings on the south side of the viaduct while avoiding the Former Manufactured Gas Plant and electric substation north of Gordon Drive.

This alternative would result in operations similar to the existing viaduct before it was recently limited to two lanes of traffic and a lower load posting. The new viaduct would support higher speeds compared to Alternative 2 and would have a narrower median. ROW impacts would be similar to Alternative 2, with slightly more impact area, fewer full acquisitions, and slightly less estimated cost. Constructability and maintenance of traffic would be less challenging under Alternative 1, with a shorter estimated construction period due to off-alignment viaduct replacement.

On-Alignment Viaduct Replacement (Alternative 2)

Alternative 2 (Yellow) would demolish the existing Gordon Drive viaduct and then construct a new viaduct on the same alignment. This alternative would not change current conditions of the Floyd River Levees. The existing viaduct would be replaced by two bridge structures separated

by a raised roadway segment referred to as a fill plug. The fill plug would consist of embankment material surrounded by retaining walls to limit the roadway footprint but facilitate a new intersection at Cunningham Drive. The bridge structures and fill plug would feature pedestrian accommodations on the south side, providing a 14-foot-wide mixed-use path for the full length of the combined bridge and fill plug. The alternative would include two conventional at-grade intersections with Gordon Drive, one at Cunningham Drive and one at Lewis Boulevard, where the existing interchange would be replaced by an intersection that better fits the context of the corridor. Figures 4-4 and 4-5 show the western and eastern portions, respectively, of Alternative 2.

The reconstructed Gordon Drive would support lower speeds compared to Alternative 1 and would have a wider median. ROW impacts would be similar to those under Alternative 1, with slightly less impact area, more full acquisitions, and slightly more estimated cost. The two at-grade intersections at Cunningham Drive and Lewis Boulevard would require full acquisition of more parcels, although there would be less overall impact area. Constructability and maintenance of traffic would require a longer estimated construction period than other alternatives. More specifically, construction would need to be staged, starting with the removal of the widened addition from 1965, building new eastbound structures, switching traffic to the new lanes, and then constructing new westbound structures. During construction, detours and lane reductions would be required.

Combined GDV (Alternative 3)

The two Gordon Drive viaduct Alternatives were reviewed and developed into one Combined GDV Alternative. Each alternative was assessed based on a range of criteria including environmental impacts, ROW impacts, land use and access, utility impacts, constructability, maintenance considerations, and construction costs.

The alternatives for Gordon Drive were evaluated based on the advantages and challenges of the designs of Gordon Drive. At-grade intersections at Cunningham Drive and Lewis Boulevard (as originally proposed under the On-Alignment Viaduct Replacement, Alternative 2) would improve local access. Constructability would be better facilitated through constructing the new Gordon Drive alignment south of the existing viaduct (as originally proposed under the South Adjacent Viaduct Replacement, Alternative 1) to help maintain traffic during construction.

The Combined GDV Alternative proposes the construction of two bridge structures approximately 10 feet south of the existing viaduct, with no realignment of the nearby railroad tracks, separated by a raised roadway segment referred to as a fill plug. The fill plug would consist of embankment material surrounded by retaining walls to limit the roadway footprint but facilitate a new intersection at Cunningham Drive. The bridge structures and fill plug would feature pedestrian, bicycle, and other non-motorized transportation accommodations on the south side, providing a 14-foot-wide mixed-use path the full length of the combined bridge and fill plug. Each bridge would include four 12-foot-wide travel lanes (two eastbound and two westbound lanes), and a 14-foot-wide pedestrian mixed-use path on the south side. Both bridges would span railroad tracks with at least 23 feet, 6 inches of vertical clearance to meet the American Railway Engineering and Maintenance-of-Way Association criteria. The new bridges would be built prior to the demolition of the existing viaduct, allowing uninterrupted traffic flow. This alternative would not change current conditions of the Floyd River Levees.

The eastern portion of the study area would include a 925-foot-long bridge and reconstruction of the existing Lewis Boulevard interchange as an at-grade signalized intersection, similar to other major intersections along Gordon Drive. Lewis Boulevard would be shifted to the east and its elevation increased through the intersection area to connect with Gordon Drive. The at-grade intersection would be expected to improve traffic safety in the existing interchange area due to improved lane geometrics and simplification of movements to better meet driver expectations. There would also be an expected safety benefit at the Lewis Boulevard and Leech Avenue intersection where the existing ramp terminal would be removed and replaced with a standard four-leg intersection.

The western portion of the study area would include a 1,374-foot-long bridge over Floyd Boulevard, the Floyd River, the UP rail line, and Stueben Street. The south side of Gordon Drive would include a sidewalk and switchback down the face of a retaining wall from Gordon Drive back to Floyd Boulevard. The west end of the bridge would also provide a sidewalk connection from Floyd Boulevard to Court Street. Pedestrian mixed-use accommodations would provide a shorter route and direct connection to Court Street and Floyd Boulevard, reducing out-of-direction travel for pedestrians, bicycle, and other non-motorized transportation. Additionally, there will be a direct connection from Gordon Drive to the Rail Yards via Cunningham Drive. Figures 4-9 and 4-10 show the proposed improvements to Gordon Drive, including the new viaduct and connecting intersections.

Pedestrian mixed-use connections would also be improved. In addition to the mixed-use path on the bridges and fill plug discussed previously, the path would also extend south of the roadway on the fill plug between viaduct spans and along the west side of Cunningham Drive to Leech Avenue connecting to an existing shared roadway path along Leech Avenue. Another pedestrian mixed-use path would also be constructed to the west of Lewis Boulevard and connect to the shared roadway path along 3rd Street to the north and Leech Avenue to the south connecting the Floyd River Trail by a shared roadway path along 6th Street. A pedestrian mixed-use path would also be constructed above the proposed BCC between Gordon Drive and Correctionville Road from Lewis Boulevard to Rustin Street.

4.3 Bacon Creek Conduit – Concepts Considered

4.3.1 Bacon Creek Concepts Considered but Dismissed

The following concepts for the BCC were considered but ultimately dismissed for reasons described below. Figure 4-6 offers more details regarding the locations of these concepts.

As noted in **Chapter 2, Section 2.1.3**, the BCC project was originally a separate project but was incorporated into the Gordon Drive Location Study. The BCC project objective was to enhance the overall structural condition of the South Conduit, or South and Center Conduits. The project aimed to minimize the risk of future flooding to the surrounding 100-year floodplain, thereby improving both the structural integrity of the conduit system and safety. To support consideration of conduit concepts, a hydraulic analysis was conducted to evaluate existing and future capacity of the BCC to reduce or eliminate overland flow during a 100-year storm event.

Nine preliminary concepts were considered with multiple options for conduit replacement. None of the concepts would change current conditions of the Floyd River Levees. The description of the concepts and why they were dismissed are detailed in Table 4-1. The table states the color

and line style of the concept alignments shown in Figure 4-6. Concepts 6A and 6B were carried forward as Alternatives 6A and 6B and are discussed in Section 4.3.2.

Table 4-1. BCC Concepts Considered but Dismissed

Concept ¹	Description	Reason for Dismissal
Conduit Concepts		
1A (red line)	Replace South Conduit on alignment with no increase in capacity and use Center Conduit as constructed.	Did not increase capacity, not aligned with project purpose and need.
2A (orange line)	Replace South Conduit on alignment with increased capacity and use Center Conduit as constructed.	Did not address Center Conduit, causing future construction needs and traffic disruptions.
2B (orange line)	Shift Gordon Drive to the south, replace South Conduit.	Impacts on historic parcel.
2C (orange line)	Replace both South and Center Conduits.	Impacts on historic parcel.
3A (light green line)	Replace South Conduit, shifted north but under Gordon Drive with increased capacity, and use Center Conduit as constructed.	Constructability concerns, impacts on structures, Center Conduit unaddressed.
4A (dark green line)	Replace South Conduit, centered between Gordon Drive and Correctionville Road with increased capacity, and use Center Conduit as constructed.	Did not address Center Conduit, causing future construction needs and traffic disruptions.
5A (blue line)	Replace South Conduit, located along the Center Conduit alignment with increased capacity, and use Center Conduit as constructed.	No significant advantage, Center Conduit unaddressed.
Open Channel Concepts		
7A (pink dashed line)	Open channel between Gordon Drive and Correctionville Road.	Similar to existing channel, costly street crossings.
8A (purple dashed line)	Open channel on existing Gordon Drive alignment, shifting proposed Gordon Drive to the south.	Similar to existing channel, costly street crossings.
9A (blue dashed line)	Open channel near the designated floodway, east of Fairmont Street.	Increased property and environmental impacts, costly street crossings.
9B (yellow dashed line)	Open channel near the designated floodway, west of Fairmont Street.	Increased property and environmental impacts, costly street crossings.
9C (red dashed line)	Open channel near the designated floodway, east of Rustin Street.	Increased property and environmental impacts, costly street crossings.

¹ The line color and type shown in Figure 4-6 are identified below each concept number.

4.3.2 Bacon Creek Conduit – Concepts Considered

The two concepts carried forward were reviewed and evaluated and are discussed in the following subsections. Figure 4-6 shows the two concepts carried forward compared to the concepts dismissed.

Off-Alignment (Concept 6A)

Concept 6A was defined as an off-alignment, full South and Center Conduit replacement option to maintain a full-capacity replacement alternative. The existing 8-foot by 10-foot South Conduit and existing 12-foot by 12-foot Center Conduit would be replaced with a new triple 11-foot by 10-foot box culvert located between Gordon Drive and Correctionville Road. The new box culvert would be shifted north of the location of the existing South Conduit. Overall system capacity would increase to convey the 100-year storm event. This concept was carried forward for alternative development and is known as the Off-Alignment Alternative.

On-Alignment (Concept 6B)

Concept 6B was defined as an on-alignment full South and Center Conduit replacement as a second full-capacity replacement option but with fewer ROW impacts than Concept 6A. The existing 8-foot by 10-foot South Conduit and the existing 12-foot by 12-foot Center Conduit would be replaced with a new triple 10-foot by 11-foot box culvert following the existing South Conduit alignment under Gordon Drive without direct impact on the parcels between Gordon Drive and Correctionville Road. Overall system capacity would increase to convey the 100-year storm event. This concept was carried forward for alternative development and is known as the On-Alignment Alternative.

4.3.3 Bacon Creek Conduit – Alternatives

Off-Alignment Alternative

The Off-Alignment Alternative remains mostly the same as Concept 6A. It would maintain its main path between the Lewis Boulevard interchange and Fairmount Street; however, the outlet end geometry under Lewis Boulevard was adjusted to allow flow in one part of the existing conduit during the partial construction of the proposed triple box culvert. This alternative would not change current conditions of the Floyd River Levees.

The most notable change is in the Rustin Street inlet section. Concept 6A would have overlapped a long section of the existing conduit system, which complicated the flow maintenance and construction. To reduce the number of acquisitions, the inlet section of the alignment east of Irene Street was moved north toward Correctionville Road for improved Project constructability. This change in alignment would enhance the construction process by moving more of the proposed box culvert off alignment, reducing the overlap with the existing conduit system to a short section between Fairmount and Irene Streets. This shift in alignment would also improve the proposed BCC inlet geometry to better align with the open channel section to the east. Figure 4-7 shows the Off-Alignment Alternative.

On-Alignment Alternative

On-Alignment Alternative remains mostly the same as Concept 6B. It would maintain its main path between the Lewis Boulevard interchange and Fairmount Street, with some minor adjustments to minimize ROW impacts and improve maintenance of traffic. This alternative would not change current conditions of the Floyd River Levees. Specifically, minor deviations in the conduit alignment were added near Fairmount Street to avoid impacts on the parcels near the intersection, including the Tastee Inn & Out south of Gordon Drive, which is listed on the National Register of Historic Places.

Like the Off-Alignment Alternative, the outlet end geometry would be adjusted to maintain flow in one part of the existing culvert during the partial reconstruction of the proposed box culvert. As a result, the culvert alignment was also slightly modified west of Westcott Street and is more gradual than Concept 6B. Similarly, the inlet section of the BCC was adjusted to aid in maintenance of flow during staged construction of the box culvert.

The On-Alignment Alternative would reduce ROW impacts north of Gordon Drive compared to the Off-Alignment Alternative. However, it would present several challenges, including the complexity of maintaining Gordon Drive traffic during construction, the need for easements south of Gordon Drive for temporary surfacing, and potential risks to historic parcels. Figure 4-8 shows the On-Alignment Alternative.

Combined BCC Alternative

The two BCC alternatives were reviewed and developed into one Combined BCC Alternative. Each alternative was assessed based on a range of criteria including environmental impacts, ROW impacts, land use and access, utility impacts, constructability, maintenance considerations, and construction costs.

The Combined BCC Alternative would replace the South and Center Conduits off-alignment, relocating it between Gordon Drive and Correctionville Road. To address the need of increased capacity, a triple 10-foot by 11-foot box culvert would capture Bacon Creek stormwater runoff at the Rustin Street inlet. Shifting the box culvert would require ROW from properties located between Gordon Drive and Correctionville Road but would minimize construction and traffic impacts along Gordon Drive during future maintenance or replacements. Traffic could continue to use Gordon Drive during construction because the box culvert would be built outside of the roadway. The area above the new BCC between Gordon Drive and Correctionville Road would become greenspace and would include a new mixed-use trail. The existing South and Center Conduits would generally be abandoned in place, except where they conflict with the new structure. The realignment of Lewis Boulevard would result in the existing North Conduit being located under the new roadway, introducing a long-term maintenance concern. As a result, the existing North Conduit would be replaced by a short segment of box culvert under the new Lewis Boulevard, which would drain into an open ditch along the west side of Lewis Boulevard. An open greenspace associated with the North Conduit replacement system would be developed. This alternative would not change current conditions of the Floyd River Levees. Figure 4-10 shows the proposed improvements to the BCC.

4.4 Proposed Alternative

The Combined Alternatives from the Gordon Drive viaduct (Alternative 3) and the BCC (Combined BCC Alternative) together represent a balanced approach to infrastructure improvement, considering both roadway and stormwater management needs. It optimizes constructability and long-term maintenance of Gordon Drive and the BCC, minimizes construction costs, and meets the Project's purpose and need. Therefore, it is the Proposed Alternative for further detailed analysis in **Chapter 5**.

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LEGEND

- Leave Viaduct in Place
- Rehabilitation of Viaduct for Reuse
- Relocate Viaduct for Reuse
- North Viaduct Replacement
- Far South Viaduct Replacement
- Full Railroad Realignment
- South Adjacent Viaduct Replacement
- Minimal Railroad Realignment

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

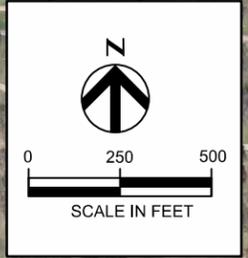
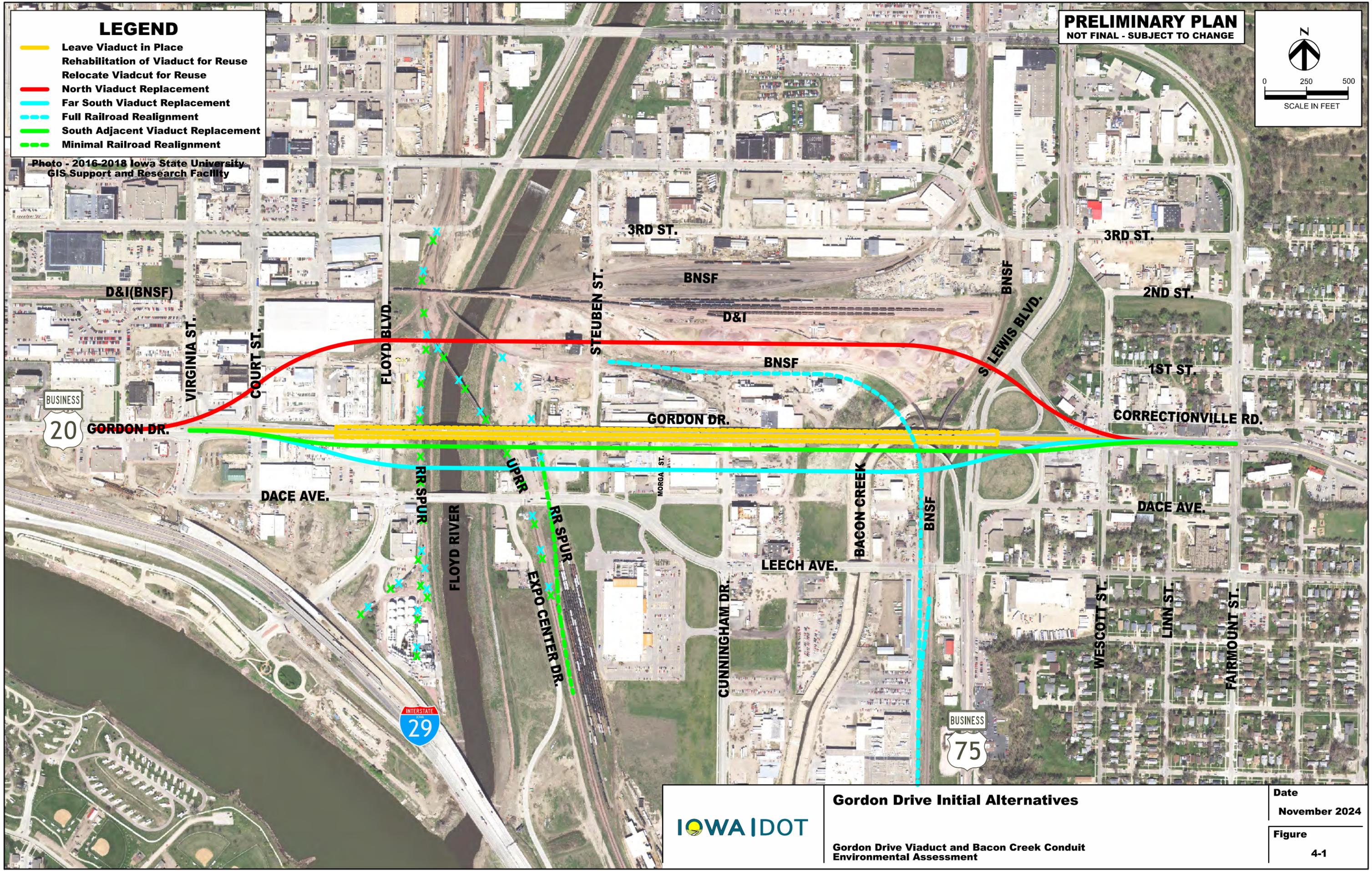


Photo - 2016-2018 Iowa State University GIS Support and Research Facility



Gordon Drive Initial Alternatives

Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment

Date
November 2024

Figure
4-1

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges
- Proposed Retaining Walls

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

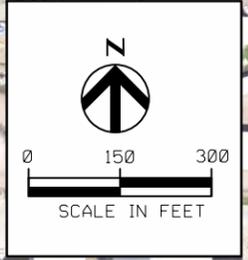
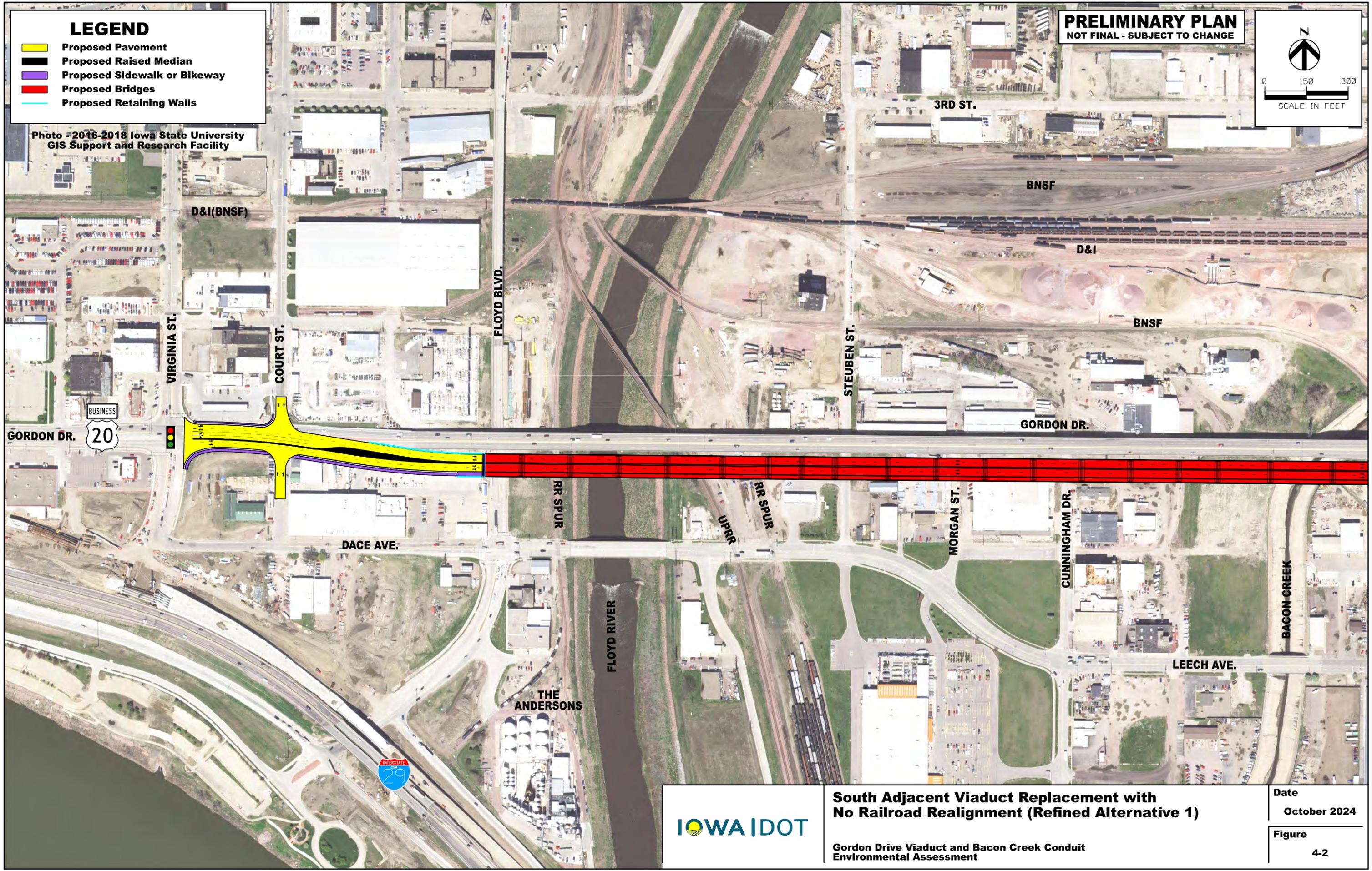


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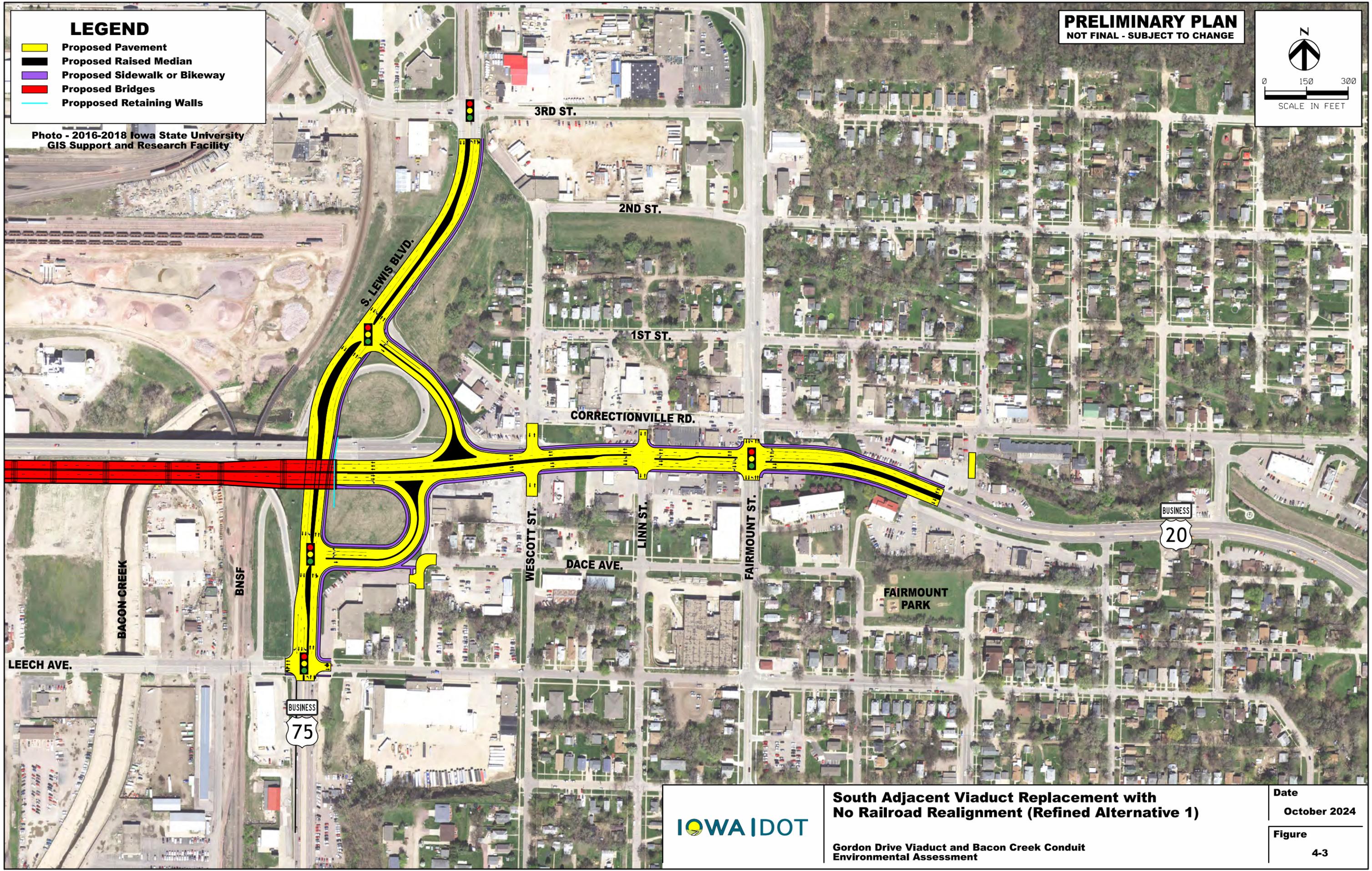
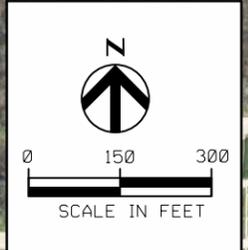
	South Adjacent Viaduct Replacement with No Railroad Realignment (Refined Alternative 1)	Date October 2024
	Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment	Figure 4-2

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges
- Proposed Retaining Walls

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



South Adjacent Viaduct Replacement with No Railroad Realignment (Refined Alternative 1)

Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment

Date
October 2024

Figure
4-3

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges
- Proposed Walls and Barriers

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

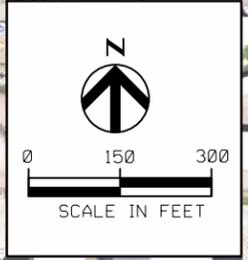
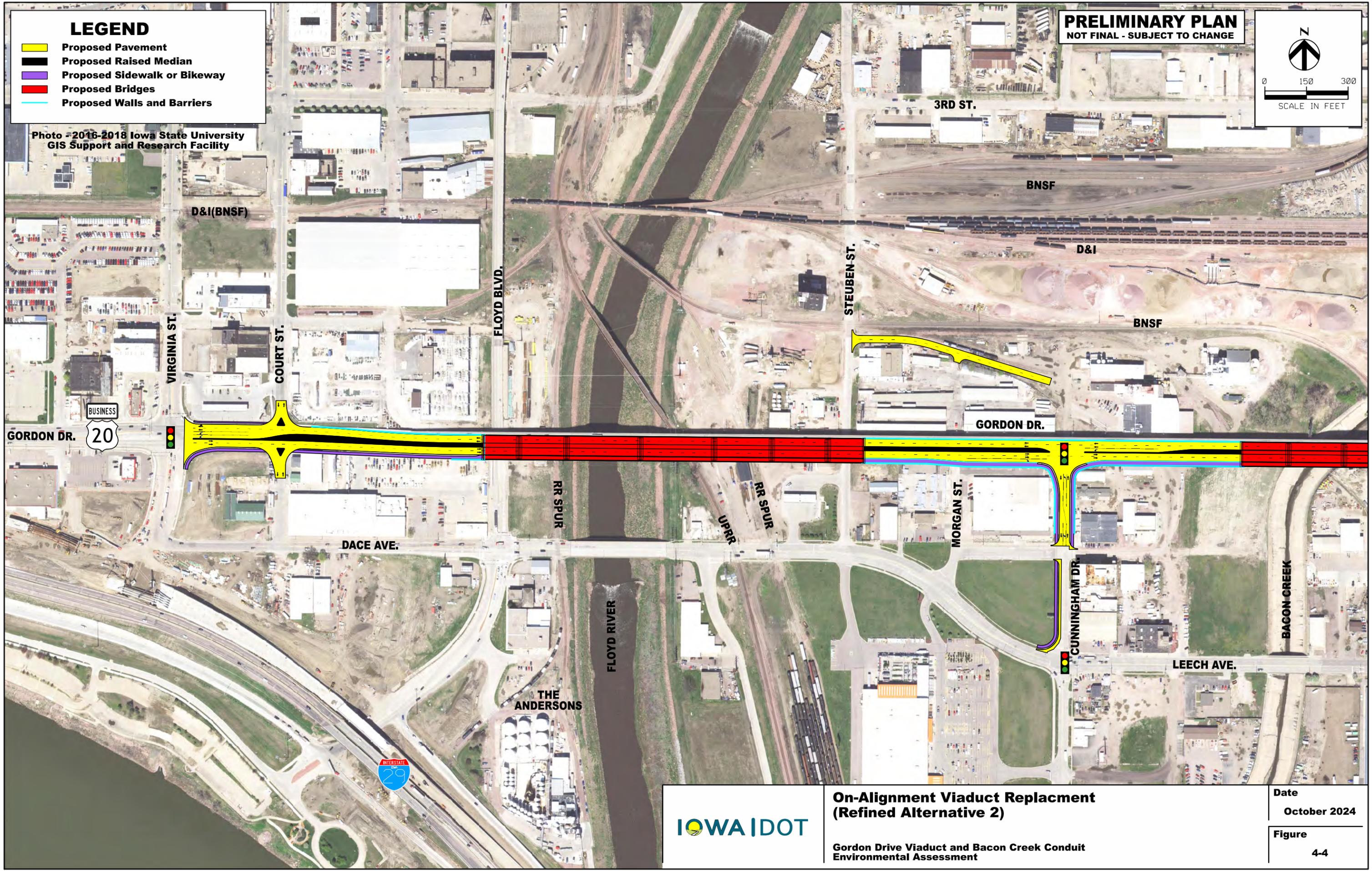


Photo - 2016-2018 Iowa State University GIS Support and Research Facility



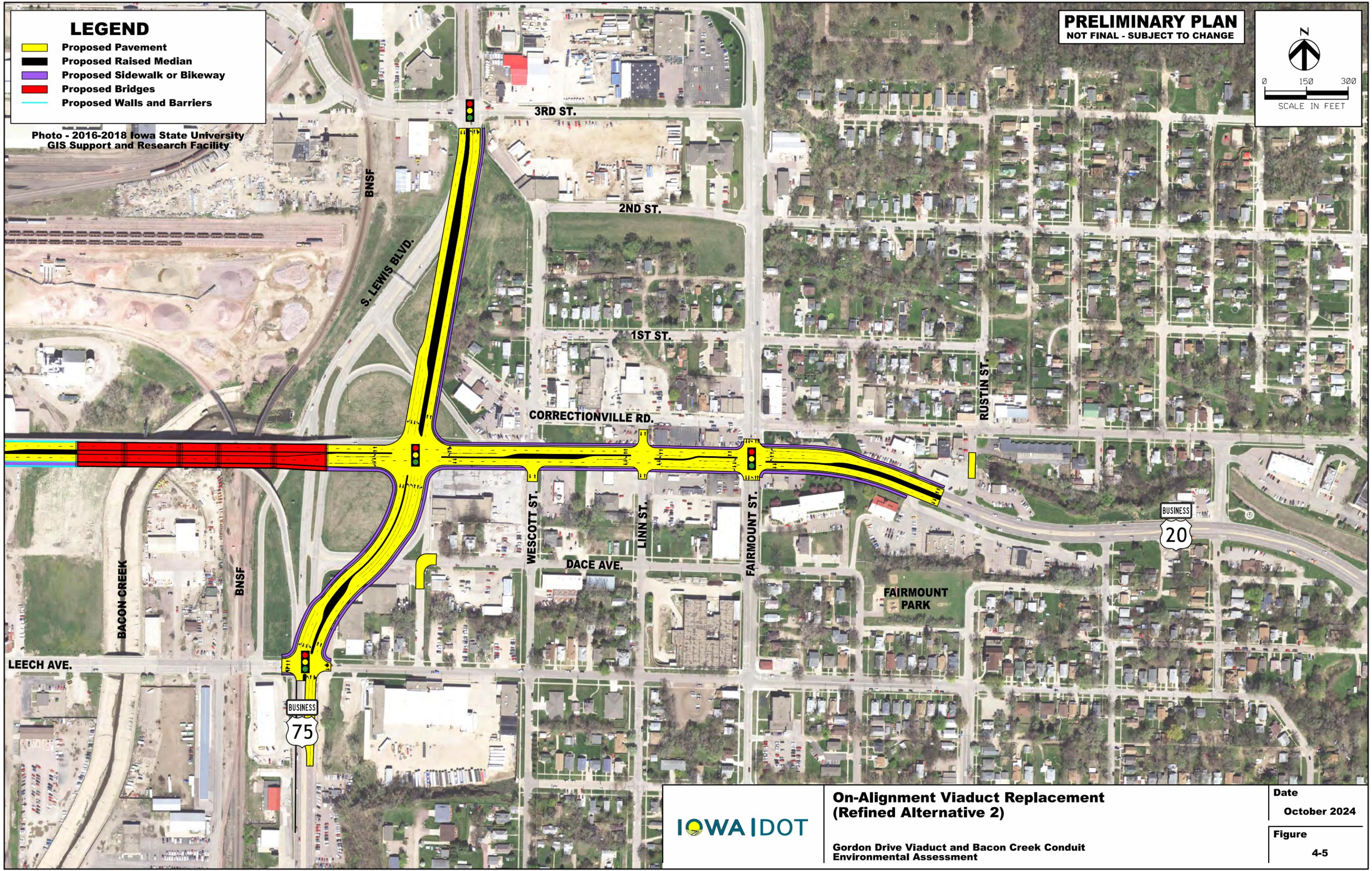
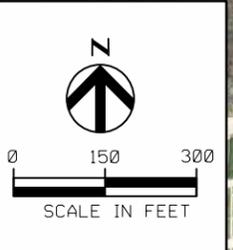
	On-Alignment Viaduct Replacment (Refined Alternative 2)	Date October 2024
	Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment	Figure 4-4

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges
- Proposed Walls and Barriers

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



On-Alignment Viaduct Replacement (Refined Alternative 2)

Gordon Drive Viaduct and Bacon Creek Conduit
Environmental Assessment

Date
October 2024

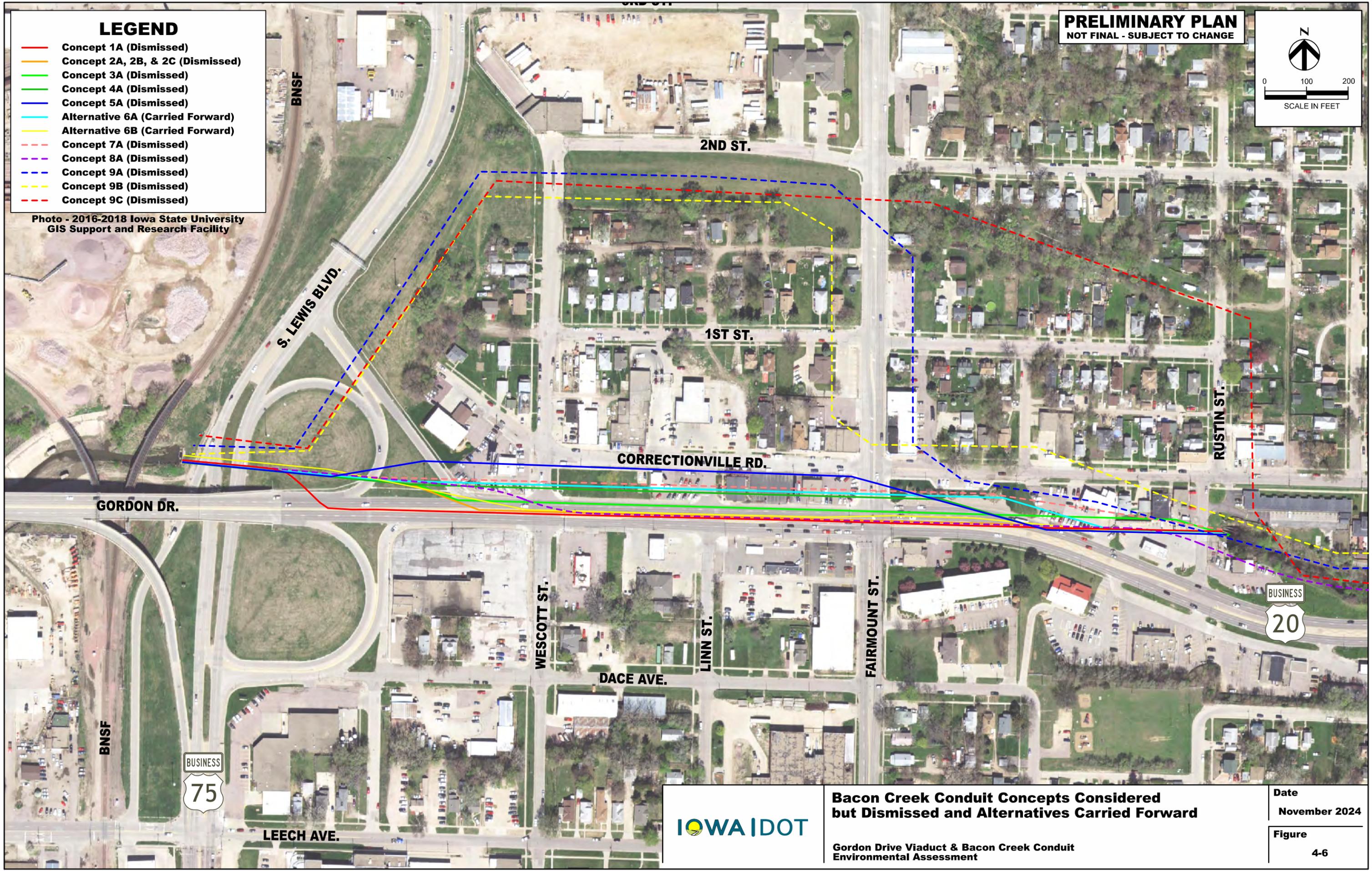
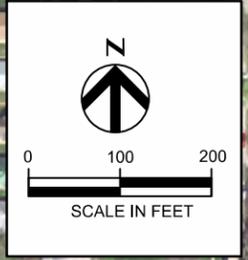
Figure
4-5

LEGEND

- Concept 1A (Dismissed)
- Concept 2A, 2B, & 2C (Dismissed)
- Concept 3A (Dismissed)
- Concept 4A (Dismissed)
- Concept 5A (Dismissed)
- Alternative 6A (Carried Forward)
- Alternative 6B (Carried Forward)
- Concept 7A (Dismissed)
- Concept 8A (Dismissed)
- Concept 9A (Dismissed)
- Concept 9B (Dismissed)
- Concept 9C (Dismissed)

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



Bacon Creek Conduit Concepts Considered but Dismissed and Alternatives Carried Forward

Gordon Drive Viaduct & Bacon Creek Conduit Environmental Assessment

Date
November 2024

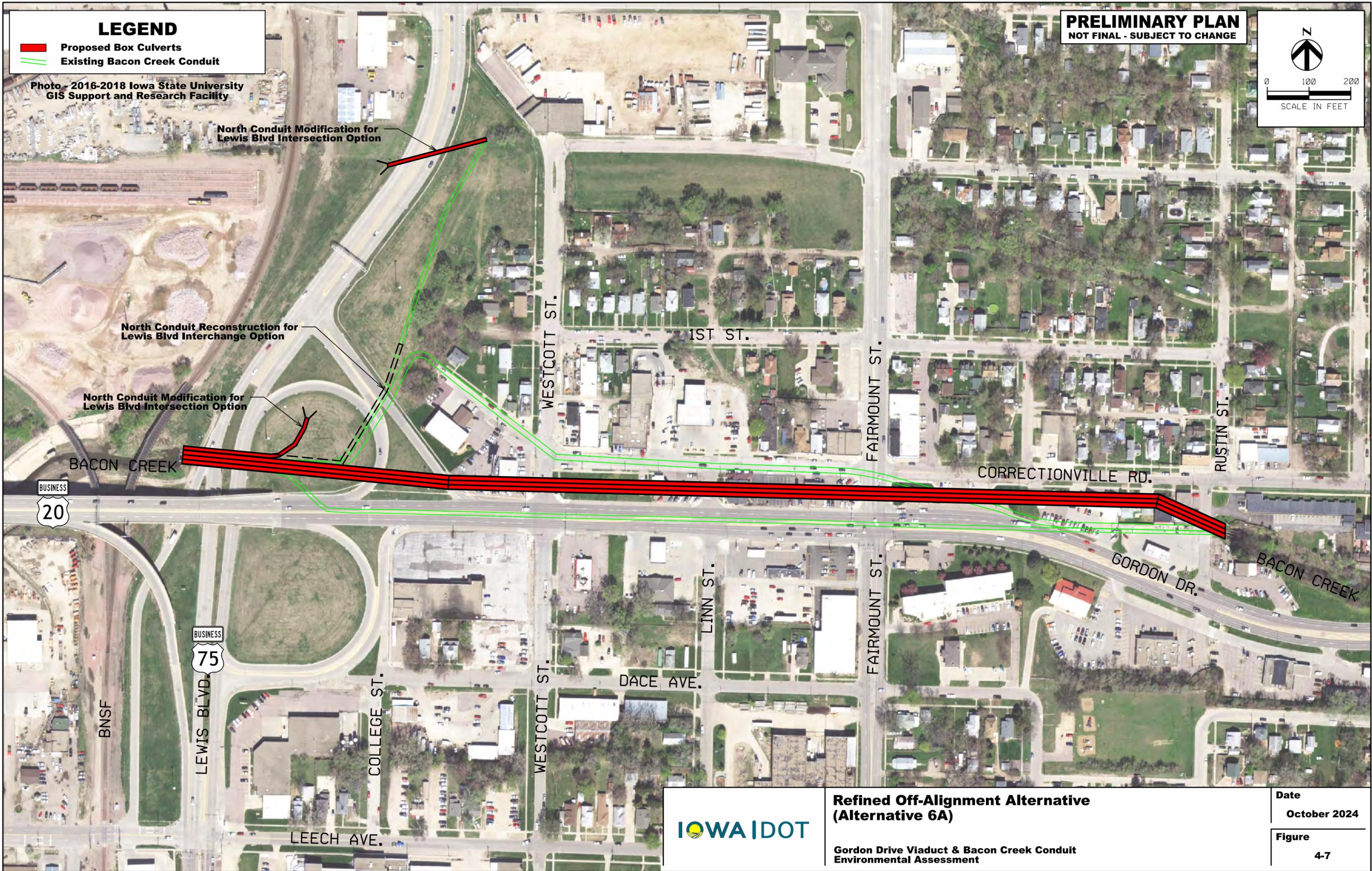
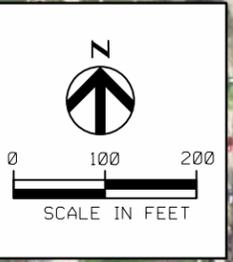
Figure
4-6

LEGEND

-  Proposed Box Culverts
-  Existing Bacon Creek Conduit

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



North Conduit Modification for Lewis Blvd Intersection Option

North Conduit Reconstruction for Lewis Blvd Interchange Option

North Conduit Modification for Lewis Blvd Intersection Option



Refined Off-Alignment Alternative (Alternative 6A)

Gordon Drive Viaduct & Bacon Creek Conduit Environmental Assessment

Date
October 2024

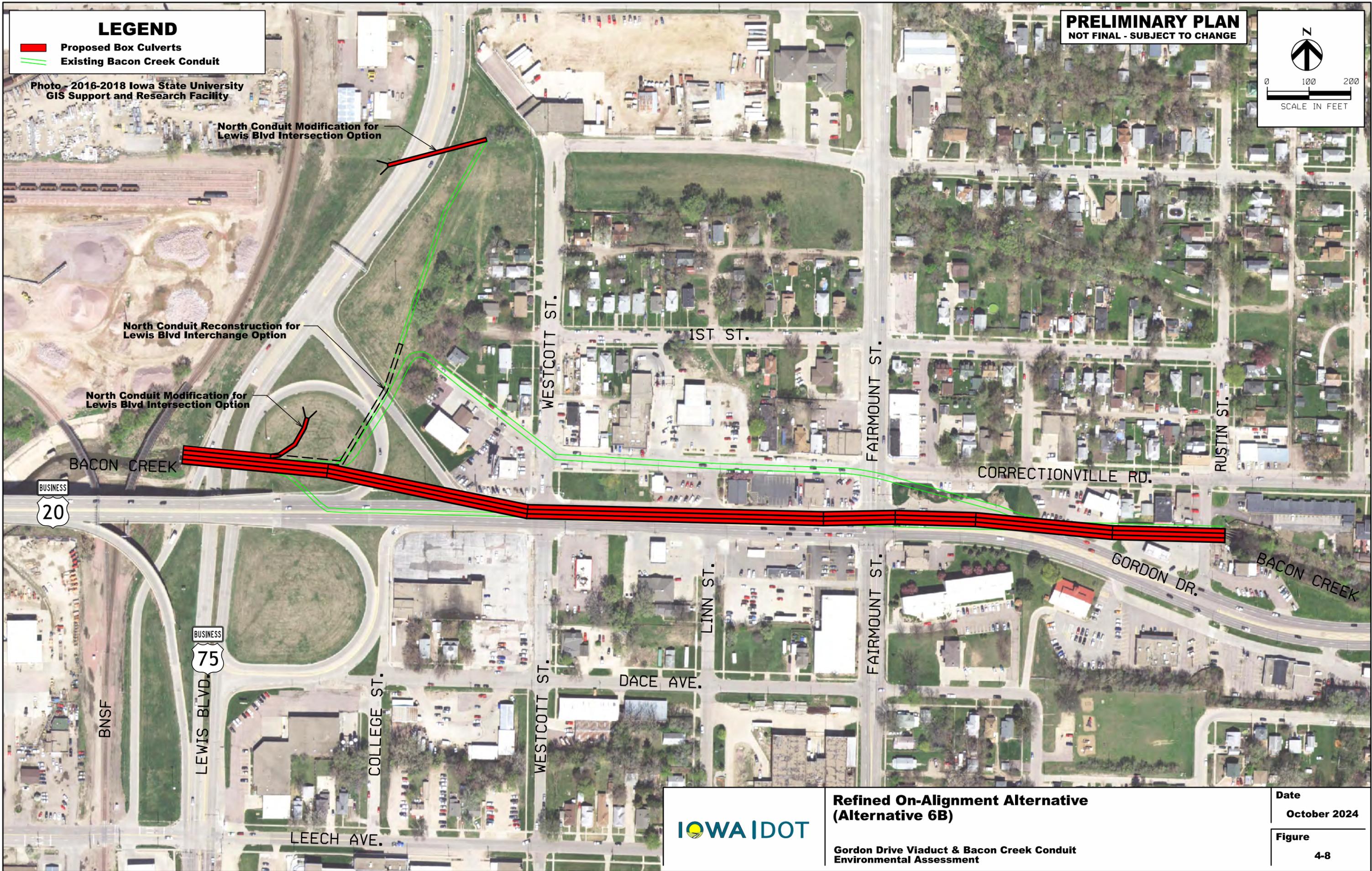
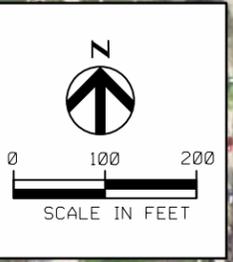
Figure
4-7

LEGEND

-  Proposed Box Culverts
-  Existing Bacon Creek Conduit

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



North Conduit Modification for Lewis Blvd Intersection Option

North Conduit Reconstruction for Lewis Blvd Interchange Option

North Conduit Modification for Lewis Blvd Intersection Option



Refined On-Alignment Alternative (Alternative 6B)

Gordon Drive Viaduct & Bacon Creek Conduit Environmental Assessment

Date
October 2024

Figure
4-8

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges and Box Culverts
- Proposed Walls and Barriers
- X Pavement/Bridge Removal

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

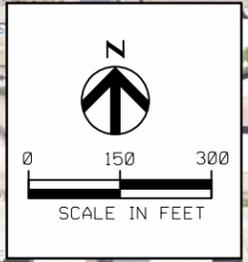
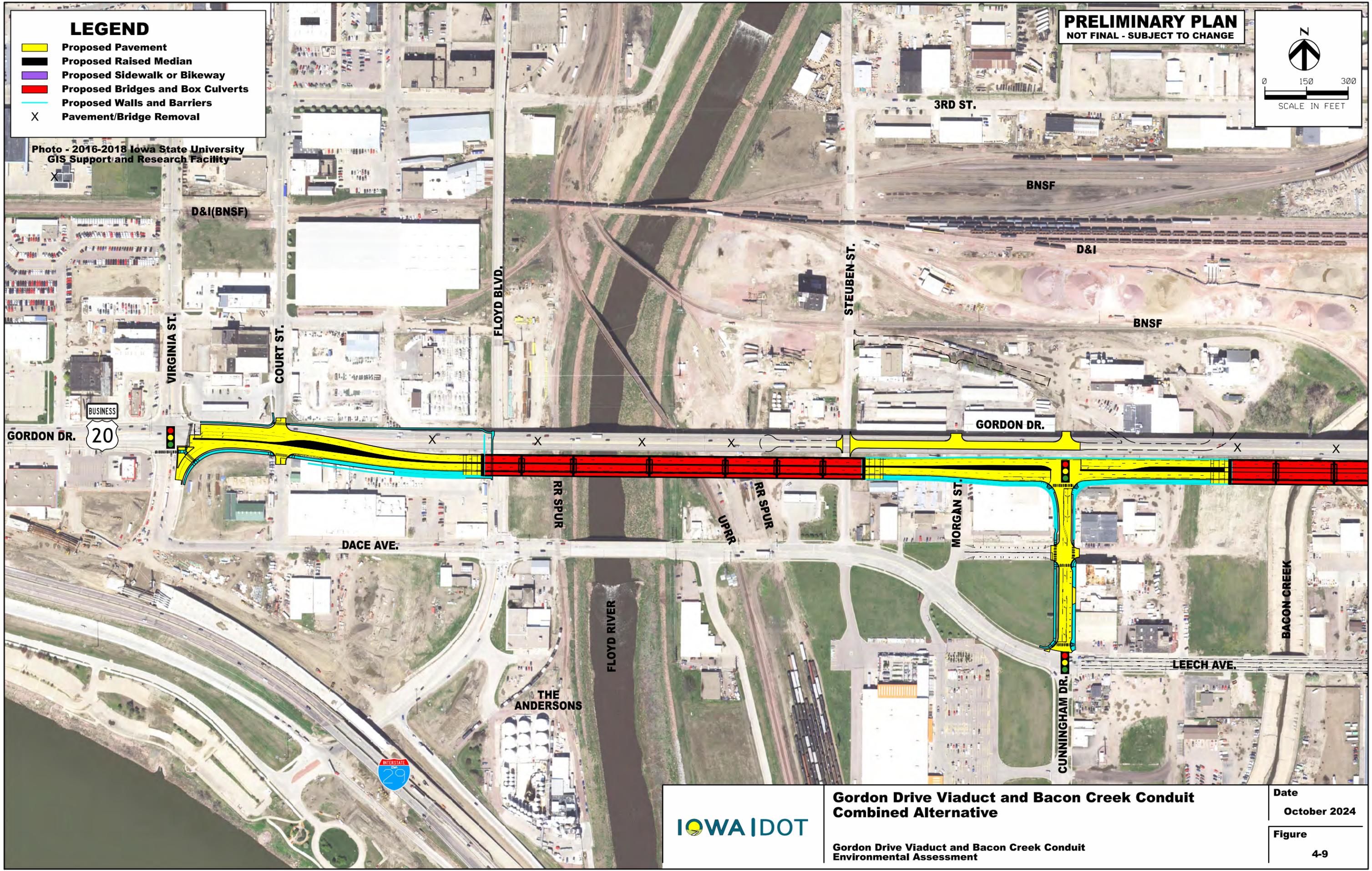


Photo - 2016-2018 Iowa State University GIS Support and Research Facility



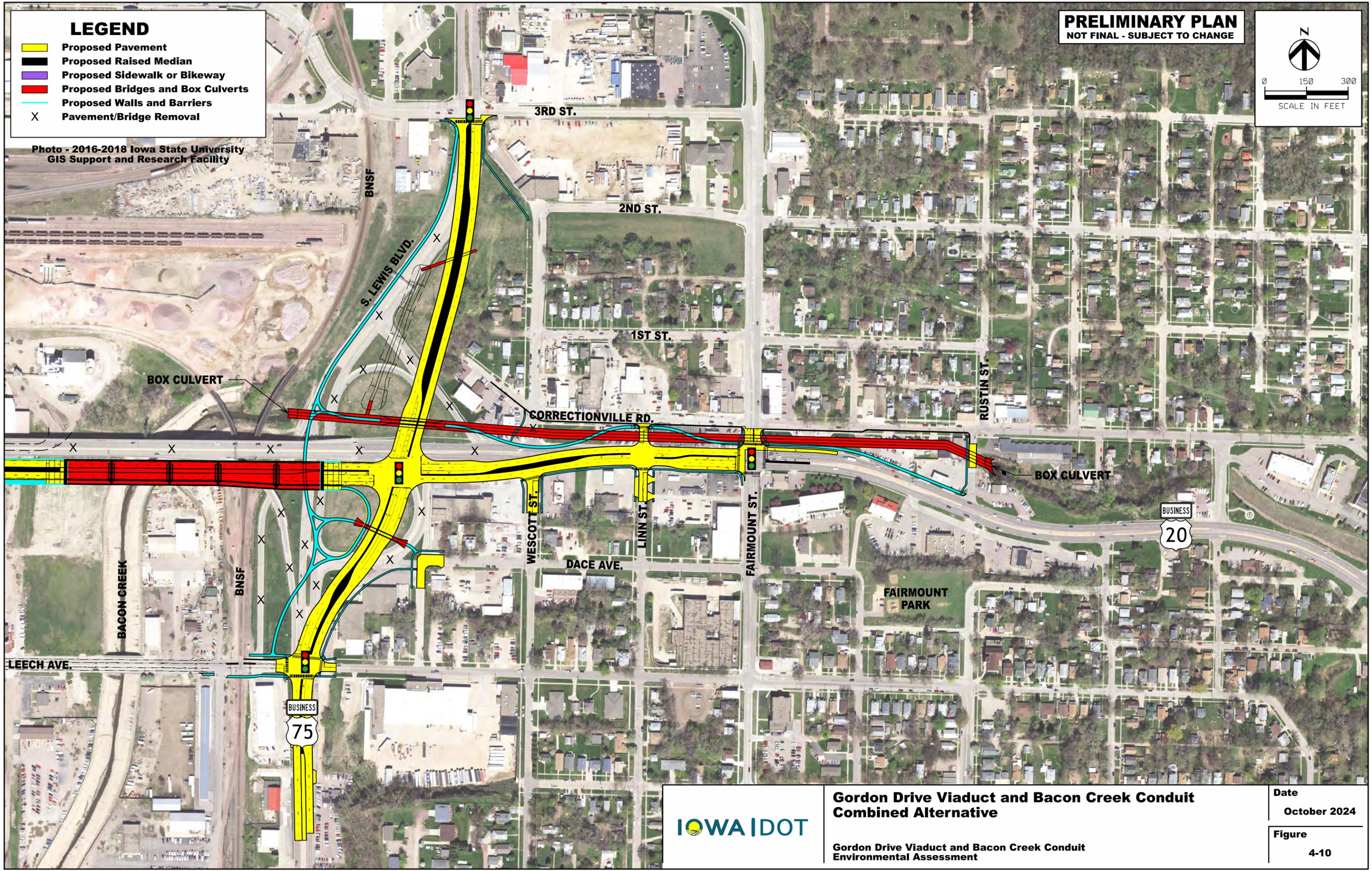
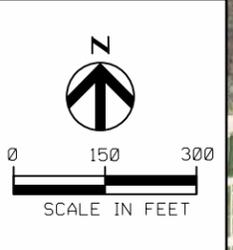
	Gordon Drive Viaduct and Bacon Creek Conduit Combined Alternative	Date October 2024
	Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment	Figure 4-9

LEGEND

- Proposed Pavement
- Proposed Raised Median
- Proposed Sidewalk or Bikeway
- Proposed Bridges and Box Culverts
- Proposed Walls and Barriers
- Pavement/Bridge Removal

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



Gordon Drive Viaduct and Bacon Creek Conduit Combined Alternative

Gordon Drive Viaduct and Bacon Creek Conduit Environmental Assessment

Date
October 2024

Figure
4-10

Chapter 5 Environmental Analysis

This chapter describes the existing socioeconomic, cultural, natural, and physical environments in the Project corridor and the potential impacts associated with the No-Build Alternative and the Proposed Alternative. In the Preface to this EA, the resources with a check in the second column in the “Resources Considered” table warrant further discussion as presented below. Chapter 5 figures are located at the end of this chapter.

Because the design process is still in its early stages, a study area was used to estimate the direct and indirect impacts of the Project on the environmental resources evaluated in this EA. The preliminary impact area includes roadway ROW needs and potential construction zones. The actual area impacted by the Proposed Alternative would likely be smaller than the preliminary impact area. As the Project design is refined, some impacts on resources are expected to be minimized or avoided.

5.1 Socioeconomic Impacts

This section evaluates the direct and indirect impacts that the Project would have on socioeconomic resources. It considers land use, community cohesion, churches and schools, environmental justice, economics, joint development, parklands and recreational areas, bicycle and pedestrian facilities, ROW, relocation potential, construction and emergency routes, and transportation.

5.1.1 Land Use

The land use evaluation considers Project consistency with existing land use and zoning, along with local and regional development and land use planning. Current land use information was obtained from meetings with stakeholders, including the Siouxland Chamber of Commerce and City officials, the *Sioux City Comprehensive Plan* (City of Sioux City 2020) and *Planning for 2025: A General Development Plan for Woodbury County* (Woodbury County 2005). Additionally, City zoning maps were reviewed in conjunction with a site visit to further determine existing land uses.

As shown in Figure 5-1A, the study area is predominantly commercial and industrial with residential areas in the eastern portion. Bacon Creek and South Lewis Boulevard separate the industrial area from the residential areas. UP, BNSF, Canadian National railroad tracks are located west of Lewis Boulevard.

The *Sioux City Comprehensive Plan* proposes the following goals for future roadway improvements (City of Sioux City 2020):

- Update structures to modern standards and designs
- Create connectivity to neighborhoods inside incorporated Sioux City limits
- Address areas with high traffic or frequent accidents
- Expand system of bike trails, trails, and sidewalks
- Encourage economic growth, job creation, and investment in selected distressed communities

No-Build Alternative

The No-Build Alternative would not address the structural and geometric deficiencies of the Gordon Drive viaduct and would not be consistent with *Sioux City Comprehensive Plan* to manage and optimize transportation infrastructure. Furthermore, the current lane closures, which would remain in place, and possible bridge failure would inhibit current and planned land uses in the study area and beyond.

Proposed Alternative

The Proposed Alternative is consistent with the *Sioux City Comprehensive Plan* to manage and optimize transportation infrastructure. Construction of the Proposed Alternative would facilitate current and future land uses by accommodating local and regional transportation and recreation needs.

5.1.2 Community Cohesion

Community cohesion is a term for patterns of social networking within a neighborhood or community as well as access to community facilities, community services, and recreational resources. Impacts of transportation projects on community cohesion may be beneficial or adverse. Adverse impacts can include separation or isolation of any geographic areas or groups of people, decrease in neighborhood size, changes in community access, or separation of residences from community facilities. Potential impacts on public safety, including police, fire, emergency management services, hospitals, and emergency routes, are also important considerations for community cohesion. Adverse impacts would occur if potential barriers would limit the study area's ability to maintain community cohesion.

Gordon Drive, and its associated viaduct, is a primary arterial roadway that connects communities that are otherwise divided by the Floyd River and railroad corridors. Currently, the viaduct's condition and diminished capacity due to lane closures (see **Chapter 3, Section 3.1.1**) limit its connective potential. Additionally, due to existing viaduct grade separation, there is currently limited connectivity on roads that intersect Gordon Drive from Virginia Street to Lewis Boulevard.

No-Build Alternative

The No-Build Alternative would not result in adverse community cohesion impacts; however, the opportunity to improve the current deficiencies would also not be addressed. Cohesion would continue to be impaired via the substandard, lane-restricted viaduct, which limits community connectivity across the river/railroad barrier. Community cohesion would be further impaired if the viaduct were closed, or failed, due to continued structural concerns. Additionally, there would be no improvement to community cohesion through improved access to neighborhoods, community facilities and services, and recreational resources.

Proposed Alternative

The Project would improve both east-west and north-south mobility across neighborhoods and communities throughout the study area by improving the existing roadways and reconstructing the existing interchange of Gordon Drive and Lewis Boulevard as an at-grade signalized intersection. Access would be maintained to existing facilities along the Project, with improved access to businesses north of Gordon Drive. The Project would be constructed along the existing

transportation corridor and would not create a new barrier that would separate or isolate any distinct neighborhoods or communities.

The Proposed Alternative would have an anticipated positive effect on community cohesion through the improvements to safety and mobility. As described in Section 5.1.8, the Project would also provide and enhance bicycle and pedestrian access by reconstructing sidewalks and mixed-use paths. Improved pedestrian connectivity would enhance recreational activities in the community and would provide alternative routes of transportation to those who may not have access to a vehicle.

The acquisition of additional ROW would be needed to construct the new conduit between Gordon Drive and Correctionville Road. Following construction, a new greenspace would be developed above the buried conduit. The new greenspace, including a pedestrian mixed-use path, would benefit neighboring residents by creating a place where they can gather as a community and by providing new recreational opportunities to an area with limited parks and trails.

After completion of the Proposed Alternative, there would be minor impacts on access to businesses and social agencies. Additional out-of-distance travel to these services would not exceed 0.2 mile. Populations with disabilities would benefit from improved mixed-use bicycle and pedestrian access that is compliant with the Americans with Disabilities Act (ADA). Therefore, the Project would have an anticipated positive effect on the safe mobility of vehicular, bicycle, and pedestrian traffic through the corridor, resulting in a net benefit to community cohesion.

5.1.3 Churches and Schools

One church is immediately adjacent to the Project: the Asamblea Apostolica de la fe in Cristo Jesus/Apostolic Assembly of the Faith in Christ Jesus located at 511 South Lewis Boulevard. Three additional churches are in the surrounding community: Rustin Avenue United Methodist Church (2901 Leech Avenue), Iglesia Centro De Vida (3220 2nd Street), and Monte Sinai Baptist Church (200 Paxton Street).

There are no schools immediately adjacent to the study area. Elementary students west of the Floyd River attend Irving Dual Language Elementary School at 9th Street and Floyd Boulevard, approximately 0.7 mile north of Gordon Drive. Elementary students east of the Floyd River and north of Gordon Drive attend Unity Elementary School at 21st Street and Unity Avenue, approximately 1.5 miles north of Gordon Drive. Elementary students east of the Floyd River and south of Gordon Drive attend Spalding Park Environmental Sciences Elementary School at South St. Aubin Street and Stone Avenue, approximately 0.9 mile southeast of the Project. Middle school students in the study area attend East Middle School at South Olive Street and Lorraine Avenue, approximately 2.6 miles southeast of the Project, and high school students attend East High School at Mayhew Avenue and South Cypress Street, approximately 3 miles south of the Project (Sioux City Community School District 2024).

No-Build Alternative

The No-Build Alternative would not involve construction and therefore would have no impact on existing churches or schools in and near the study area.

Proposed Alternative

The Proposed Alternative would avoid permanent impacts on churches and schools, but would temporarily result in construction-related impacts on these facilities due to temporary detours and lane closures (see Section 5.1.11). Coordination with the schools would be conducted before construction to provide timing of closures and detours, and to address potential concerns regarding access, closure durations, and alternate school routes because Gordon Drive and the Floyd River are dividing lines for elementary school attendance boundaries. Access would be maintained to these facilities, although there may be temporary construction-related access restrictions to the Asamblea Apostolica de la fe in Cristo Jesus/Apostolic Assembly of the Faith in Christ Jesus.

Schools are located 0.7 mile or more from the Project and would not be affected by construction noise, equipment emissions, or dust. Long-term changes in access and travel patterns would minimally affect transportation to schools, as described in Section 5.1.12, and coordination would continue with schools on changes in access and travel patterns to facilitate coordinating future school routes.

5.1.4 Environmental Justice

An environmental justice and equity review was conducted for the Project to determine whether communities with environmental justice concerns are present and, if so, whether these communities would be disproportionately or adversely impacted. In addition, the environmental justice and equity review addresses whether persons with limited English proficiency (LEP) are present in or adjacent to the study area. The Environmental Justice Study Area used to assess direct and indirect impacts includes the study area and a 0.1-mile buffer around the study area. The Environmental Justice Study Area is located within or in portions of five census block groups in southeastern Sioux City (see Figure 5-1B). The methodology used, the presence of communities with environmental justice concerns, and the potential impacts analysis for the Project are detailed in the *Environmental Justice and Equity Review: Gordon Drive Viaduct and Bacon Creek Conduit*, which is available upon request from Iowa DOT (Iowa DOT 2024a).

The review and evaluation of communities with environmental justice concerns was conducted in accordance with federal regulations and guidelines, including Title VI of the Civil Rights Act of 1964 (42 United States Code [USC] 2000d et seq.); Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*; Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities through the Federal Government*; Executive Order 14096, *Revitalizing our Nation's Commitment to Environmental Justice for All*; Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*; and U.S. Department of Transportation (USDOT) Order 5610.2(a), *Final DOT Environmental Justice Order*. LEP populations are evaluated in accordance with Executive Order 13166, *Improving Access to Services for Persons with Limited English Proficiency*.

According to the 2020 U.S. Census, the Project contains minority populations, as shown in Table 5-1. Of the five block groups, Block Group 3 of Census Tract 36 contains a total minority population along with individual minority populations that are meaningfully greater than those in Sioux City as a whole for Black or African American, American Indian and Alaska Native, and persons who identified as “some other race.” Block Group 1 of Census Tract 18.02 contains

minority populations that are meaningfully greater than those in Sioux City for Black or African American, Native Hawaiian and Other Pacific Islander, and person who identified as “some other race.” Block Group 4 of Census Tract 1, and Block Group 5 of Census Tract 18.01 contain minority populations that are meaningfully greater than those in Sioux City for persons who identified as “two or more races.”

Table 5-1. Minority Populations

Census Geography	Total Population	White	Hispanic or Latino	Black or African American	American Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two or More Races	Total Minority Population	Percent Minority
Block Group 4 of Census Tract 1	987	602 (61.0%)	238 (24.1%)	49 (5.0%)	15 (1.5%)	12 (1.2%)	1 (0.1%)	0 (0.0%)	70 (7.1%)	385	39.0%
Block Group 4 of Census Tract 18.01	1,008	728 (72.2%)	165 (16.4%)	38 (3.8%)	11 (1.1%)	15 (1.5%)	8 (0.8%)	3 (0.3%)	40 (4.0%)	280	27.8%
Block Group 5 of Census Tract 18.01	835	578 (69.2%)	151 (18.1%)	33 (4.0%)	8 (1.0%)	12 (1.4%)	3 (0.4%)	1 (0.2%)	49 (5.9%)	257	30.8%
Block Group 1 of Census Tract 18.02	1,253	735 (58.7%)	244 (19.5%)	138 (11.0%)	18 (1.4%)	19 (1.5%)	34 (2.7%)	8 (0.6%)	51 (4.1%)	512	41.3%
Block Group 3 of Census Tract 36	913	451 (49.4%)	170 (18.6%)	180 (19.7%)	37 (4.1%)	32 (3.5%)	5 (0.5%)	7 (0.8%)	31 (3.4%)	462	50.6%
Sioux City, Iowa	85,797	53,964 (62.9%)	17,961 (20.9%)	4,931 (5.7%)	1,771 (2.1%)	2,755 (3.2%)	631 (0.7%)	333 (0.4%)	3,451 (4.0%)	31,833	37.1%
Minority Threshold			27.2%	7.5%	2.7%	4.2%	1.0%	0.5%	5.2%		48.23%
Woodbury County, Iowa	105,941	72,237	18,746	5,076	1,893	2,957	651	358	4,023	33,704	27.7%
Iowa	3,190,369	2,638,201	215,986	129,321	9,079	75,017	5,605	8,487	108,673	552,168	13.6%

Source: U.S. Census Bureau 2023a.

Note: For minority populations in each block group and Sioux City, the number of persons is followed by the percentage of that minority population in parentheses. Percentages that are meaningfully greater (that is, above the threshold for identifying a minority population) are bolded and highlighted in gray.

According to the 2018 to 2022 American Community Survey 5-year estimates, approximately 14.8 percent of the population in Sioux City is identified as low-income. All but one block group (Block Group 1 of Census Tract 18.02) are indicated to have low-income populations that are meaningfully greater than that of Sioux City. Consequently, a low-income population was identified in these block groups. Table 5-2 shows the percentage of low-income populations for the study area.

Table 5-2. Low-Income Populations

Census Geography	Total	Income in the Past 12 months Below Poverty Level	Percent Low- Income
Block Group 4 of Census Tract 1	1,079	393	36.4%
Block Group 4 of Census Tract 18.01	616	178	28.9%
Block Group 5 of Census Tract 18.01	476	117	24.6%
Block Group 1 of Census Tract 18.02	1,048	137	13.1%
Block Group 3 of Census Tract 36	1,156	335	29.0%
Sioux City, Iowa	82,838	12,258	14.8%
Threshold for Low-Income Population			19.2%
Woodbury County, Iowa	102,741	13,876	13.5%
Iowa	3,051,284	339,090	11.1%

Source: U.S. Census Bureau 2023b.

Note: Percentages that are meaningfully greater (that is, above the threshold for identifying a low-income population) are bolded and highlighted in gray.

According to the 2018 to 2022 American Community Survey 5-year estimates, the block groups for the Project have populations that speak Spanish, Asian and Pacific Island languages, and other languages with LEP. Although there is not a large LEP population in the study area that reaches the Iowa DOT LEP outreach thresholds of 5 percent or 1,000 persons, Iowa DOT would consider what is needed to allow citizens impacted by Iowa DOT project(s) to participate equally in the process and would provide translation services during all public meetings and hearings as assistance is requested. Table 5-3 shows the percentage of LEP populations for the study area.

Table 5-3. Persons with Limited English Proficiency

Census Geography	Total Population	Speaks Spanish, Speaks English Less than Very Well		Speaks Other Indo-European Languages, Speaks English Less than Very Well		Speaks Asian and Pacific Island Languages, Speaks English Less than Very Well		Speaks Other Languages, Speaks English Less than Very Well	
		Count	Percentage	Count	Percentage	Count	Percentage	Count	Percentage
Block Group 4 of Census Tract 1	902	68	7.5%	0	0.0%	0	0.0%	0	0.0%
Block Group 4 of Census Tract 18.01	590	6	1.0%	0	0.0%	17	2.9%	0	0.0%
Block Group 5 of Census Tract 18.01	476	17	3.8%	0	0.0%	0	0.0%	0	0.0%
Block Group 1 of Census Tract 18.02	949	0	0.0%	0	0.0%	121	12.8%	7	0.7%
Block Group 3 of Census Tract 36	1,126	103	9.1%	0	0.0%	43	3.8%	77	6.8%
LEP Study Area	4,043	194	4.8%	0	0.0%	181	4.5%	84	2.1%
Sioux City, Iowa	79,460	5,441	6.8%	467	0.6%	1,423	1.8%	555	0.7%
Woodbury County	98,399	5,645	5.7%	619	0.6%	1,430	1.5%	555	0.6%

Source: U.S. Census Bureau 2023c.

No-Build Alternative

The No-Build Alternative would not result in direct adverse impacts on communities with environmental justice concerns; however, the current configuration of the Gordon Drive and Lewis Boulevard interchange is partially closed due to structural deficiencies, and the reduced access and mobility do not provide the adjacent communities optimum access to jobs and employment opportunities. The failing infrastructure and subsequent closure of Gordon Drive would increase congestion, and the reduced safety of the facility associated with the No-Build Alternative would be expected to negatively impact adjacent communities and commuters.

Proposed Alternative

The Proposed Alternative would require some construction staging and lane restrictions at the intersections of Gordon Drive with Virginia Street and Lewis Boulevard; on Gordon Drive from Lewis Boulevard to Rustin Street, and at the intersections of Gordon Drive with Wescott Street, Linn Street, Fairmount Street, and Rustin Street. Access to two local businesses that largely cater to minority populations would be temporarily impacted during construction: Translation, Immigration, and Income Tax Assistance Services; and 4 Caminos, Salon de Fiestas. Current Project design ensures these businesses can be accessed from Fairmount Street and have parking at the back of the businesses to mitigate these potential negative impacts. Other businesses along Correctionville Road between Westcott Street and Rustin Street that are not minority-owned or that primarily cater to non-minorities would also be temporarily affected by construction activities but would resume full access upon Project completion.

Short-term impacts from construction noise and dust, access to businesses and services, and transit routes would be minimal and would not be disproportionate or adverse. As discussed in Section 5.1.12, the bus stops for Sunnybrook (Route 10) near Linn Street would be temporarily impacted and would require an extended temporary closure because these stops cannot be relocated during construction. While impacts on transit would disproportionately affect minority and low-income populations, these short-term impacts are considered to be minor and not adverse. The Sioux City Transit System would provide alternate bus stops for the Sunnybrook route for both eastbound and westbound services to continue facilitating transit modes of transportation during construction. The alternate stops near Rustin Street are approximately 0.2 mile east of the existing stops near Linn Street.

The Project would acquire the property of multiple businesses in order to accommodate construction (see Section 5.1.9), which would result in impacts on employment (see Section 5.1.5). The loss of jobs due to relocations would potentially result in impacts for communities with environmental justice concerns; however, these impacts are not anticipated to be adverse because the proposed improvements are anticipated to improve mobility, which has the potential to offset increased travel times due to increased travel distances to seek employment elsewhere. The business owners would receive relocation assistance and would have the opportunity to relocate, mitigating potential impacts on them. This would allow environmental justice employees to potentially maintain employment at the relocated businesses. None of the displaced businesses serve a specific population; therefore, these impacts are not considered to be disproportionately high or adverse. Potential impacts on services that cater to communities with environmental justice concerns are not expected to be adverse because those services, such as access to groceries and other goods available at the displaced convenience stores, would still be available at other locations in the surrounding community, such as the Dollar Tree or Hy-Vee 0.27 mile east of the Project.

The long-term changes in access would have a minor impact on access to minority-owned businesses or businesses and social agencies primarily catering to low-income populations. Out-of-distance travel is not expected to exceed 0.2 mile. The proposed pedestrian mixed-use paths and sidewalks would meet ADA requirements and would beneficially impact populations with visual, ambulatory, and independent living disabilities. Project implementation would also follow the Public Right-of-Way Accessibility Guidelines, including guidelines related to auditory and vibrotactile (the perception of vibration through touch) features at pedestrian signals.

The Project would provide beneficial impacts on minority and low-income populations through increased job opportunities on roadway construction crews, improved mobility, and improved access to jobs and community facilities. There would be improved accessibility and safety for bicycle and pedestrian facilities, and an improved transportation system.

5.1.5 Economic

The total assessed property values for Sioux City and Woodbury County are \$6.2 billion and \$9.2 billion, respectively (Iowa Department of Management, n.d.-a, n.d.-b). Assessed values have increased an average of 3.4 percent in Sioux City and 4.5 percent in Woodbury County from 2020 to 2024 (Iowa Department of Management, n.d.-c, n.d.-d). Property taxes account for 66 percent of total revenue for the City and 52 percent of total revenue for Woodbury County (City of Sioux City 2023; Iowa Department of Management, n.d.-e).

The urban and highly developed area surrounding the Project contains several government and industrial properties, residences, places of worship, and commercial businesses, including pharmacies, convenience stores, banks, and retail services.

No-Build Alternative

The No-Build Alternative would not result in any direct commercial displacements or impacts on employment. However, it would perpetuate existing traffic congestion associated with existing lane closures and would fail to address the existing structural deficiencies of the viaduct, which may lead to closure. Failure to address existing viaduct deficiencies would adversely affect economics of the study area and Sioux City.

Proposed Alternative

As detailed in Section 5.1.9, ROW acquisition would be required for the Proposed Alternative and would include 27 total parcel acquisitions and 4 partial parcel acquisitions, which would potentially displace 24 properties and 6 billboards. Multiple businesses are included in the displacements; however, the displaced businesses would have the opportunity to relocate within Sioux City or Woodbury County (see Section 5.1.10). Additionally, temporary impacts on local businesses may occur during construction due to temporary detours and lane closures (see Section 5.1.11). Access would be maintained to the extent possible.

Publicly available sources were used to estimate the number of employees at each of the potentially displaced commercial properties, including Glassdoor, Manta, and Cortera business directories and the Sioux City Economic Development Department (n.d.). Among the potentially displaced commercial properties (see Section 5.1.9), the Project could result in the potential loss of an estimated 200 to 225 jobs. Approximately one-fourth of the properties employ 20 or more employees, while the remaining three-fourths employ less than 20 employees. However, because the displaced businesses would have the opportunity to relocate within Sioux City or Woodbury County, displaced employees could potentially maintain employment at relocated businesses.

The total assessed value of parcels to be acquired for ROW is approximately \$13 million, approximately 0.2 percent of total assessed value for Sioux City and 0.1 percent of total assessed value for Woodbury County. The decrease in property values and tax revenue due to the Project would be much smaller than the average yearly increase in property values over the past 5 years. It is anticipated that future development of the area surrounding Gordon Drive would increase the tax base and that economic development would occur in the surrounding community after completion of the Project.

5.1.6 Joint Development

Joint development occurs when other proposed facilities, such as trails and parks, can be developed or planned along with the Project by working with other local authorities such as the City or Woodbury County. As discussed in **Chapter 2, Section 2.1.3**, the Gordon Drive viaduct and BCC started as separate projects. However, due to their proximity and interconnected infrastructure, Iowa DOT, FHWA, and the City decided to merge them into a single project in February 2021.

No-Build Alternative

The No-Build Alternative would not result in the joint development of transportation ROW with recreational development of any kind.

Proposed Alternative

The joining of the Gordon Drive viaduct replacement and the BCC improvements in the Proposed Alternative is expected to provide several benefits to the collective projects, the owners and operators, and the public. The Proposed Alternative streamlines construction of the collective projects and enhances the overall functionality and connectivity of the infrastructure. It also facilitates additional public greenspace and multi-use trails, as detailed in **Chapter 4, Section 4.6**. Lastly, the Proposed Alternative is anticipated to reduce long-term maintenance costs and improve the resilience of the infrastructure against future demands.

5.1.7 Parklands and Recreational Areas

USDOT refers to publicly owned parks, recreation areas, and wildlife and waterfowl refuges, and historic sites that are listed in, or potentially eligible for listing in, the National Register of Historic Places (NRHP) as “Section 4(f) properties” because they have special status under the provisions of Section 4(f) of the USDOT Act of 1966 (49 USC 303 and 23 CFR 774).

Section 4(f) states that the Administration (in this case, FHWA) may not approve the use of a Section 4(f) property unless a determination is made that (1) there is no prudent and feasible avoidance alternative to the use of the property, (2) the action includes all possible planning to minimize harm to the property, or (3) the use of the property, including any measures to minimize harm (avoidance, minimization, mitigation, or enhancement measures) would have a *de minimis* impact on the Section 4(f) property. Publicly owned parks, recreation areas, and wildlife and waterfowl refuges are discussed in this section. Historic sites are discussed in Sections 5.2.1 and 5.2.2.

Fairmount Park is the only park that is (partially) in the study area. In addition to Fairmount Park, there are five existing trails (including a network of shared roadway trails and a paddle route), two programmed future trails, and two planned future trails (see Figure 5-1A). Iowa DOT coordinated with FHWA to determine the Section 4(f) status of these resources, as follows:

- **Fairmount Park:** The 4.6-acre park is located south of Gordon Drive and between the break in Dace Avenue. It is directly adjacent to, and partially within, the study area. It is publicly owned and open to the public, and its primary function is recreation. Therefore, Fairmount Park is subject to the provisions of Section 4(f).
- **Sioux City Trail Network:** The Sioux City Trail Network is a publicly owned network of shared roadway paths (along streets, some with designated bike lanes) serving a transportation purpose throughout Sioux City. Pedestrians and bicyclists also have options to use sidewalks. Within the study area, shared roadway paths include Correctionville Road, 3rd Street, Chambers Street, Leech Avenue, Washington Avenue, South Fairmount Street, South Cecelia Street, South Cunningham Drive, South Steuben Street, Floyd Boulevard, Wescott Street, South Rustin Street, and Washington Avenue. The Sioux City Trail Network is subject to the provisions of Section 4(f), but it is covered with an exception under 23 CFR 774.13(f)(4) because its primary purpose is not recreation.
- **Connecting Larsen Park Rd along Virginia Trail:** This 0.2-mile-long publicly owned trail is located south of Gordon Drive along the west side of Virginia Street, with only its northern terminus within the study area. The primary function of the trail is for recreational purposes and connectivity to Chris Larsen City Park along the Missouri

River. The trail is subject to the provisions of Section 4(f). Additionally, the trail was funded with Land and Water Conservation Funds and is afforded associated protection under Section 6(f) of the Land and Water Conservation Fund Act, which prohibits the conversion of the trail's recreation use without approval by the Secretary of the Interior.

- Floyd River Trail: This 3.2-mile-long pedestrian trail is publicly owned. Its southern terminus is slightly north of the study area, and it extends northward on the Sioux City – Floyd River Right Bank Levee. The primary function of the trail is for recreational purposes, and it is subject to the provisions of Section 4(f).
- Floyd River Paddle Route: The Iowa Department of Natural Resources (Iowa DNR) has designated the Floyd River as a paddle route for canoes, kayaks, and other non-motorized water-based recreation. The Floyd River extends north-south through the western portion of the study area, beneath the existing Gordon Drive viaduct. The Floyd River Paddle Route is subject to the provisions of Section 4(f).
- Stockyards Trail: This 0.3-mile-long trail is located along Dace Avenue and Cunningham Drive. It is publicly owned and open to the public, and its primary function is recreation. The Stockyards Trail is subject to the provisions of Section 4(f).
- Floyd River Trail Connector: This 0.8-mile-long planned trail has been awarded federal funding via Destination Iowa and the American Rescue Plan Act. It is currently in design and would be constructed within 2 years. The federal funding is through Destination Iowa, using American Rescue Plan Act funds. The trail is planned to extend along the Sioux City – Floyd River Left Bank Levee, east along Dace Avenue to Leech Avenue, and connect to Lewis Boulevard. It would replace the portion of the Stockyards Trail along Dace Avenue and would be subject to the provisions of Section 4(f).
- Other Future Trails: Other future trails include (1) Gordon Drive trail on viaduct, (2) Path along Gordon Drive, and (3) Trail along Lewis Boulevard. The City plans to designate the Project-associated multi-use path along Gordon Drive as a trail. The City also has future plans for a multi-use path along Gordon Drive extending east, along with a north-south trail along Lewis Boulevard. The primary function of these trails would not be recreation; therefore, none of these future trails would be subject to the provisions of Section 4(f).

No-Build Alternative

No construction activities would occur under the No-Build Alternative. Therefore, no park and recreational facilities would be impacted under the No-Build Alternative.

The No-Build Alternative would not develop the planned greenspace and multi-use path above the planned BCC that is included in the Proposed Alternative. The recreating public would not benefit from this additional recreational resource. The other future trails discussed above may or may not be developed depending on the City's future trail planning, funding, design, and construction.

Proposed Alternative

The Project would not impact Fairmount Park, Connecting Larsen Park Rd along Virginia Trail, Stockyards Trail, and Floyd River Trail.

Construction would disturb components of the Sioux City Trail Network; however, connectivity of the overall network would be maintained to the extent possible on trail segments not impacted by construction or through trail detours. The impacts would be covered in a Section 4(f) exception under 23 CFR 774.13(f)(4) because the network is used primarily for transportation rather than recreational purposes. New components of the network would be established after Project construction is complete. The Project would establish new multi-use paths that would further enhance connectivity of the overall network of trails.

Construction of a new bridge over the Floyd River and removal of the existing Gordon Drive viaduct would occur over the Floyd River Paddle Route. Existing piers within the river and its banks would be removed, as would the bridge deck and superstructure extending over the river. New piers would be constructed along the riverbanks, and a new bridge superstructure and deck would be constructed over the river. Coordination would occur with Iowa DNR regarding signage, the closure time frame, and other considerations to minimize impacts on the Floyd River Paddle Route (a Section 4(f) resource) during construction. The construction process would occur in compliance with the Programmatic Agreement “Regarding the Processing of Recreational Paddling Routes as Section 4(f) Resources,” signed by FHWA Iowa Division, Iowa DOT, and Iowa DNR in December 2020 and January 2021. The extent of impacts on the Floyd River Paddle Route would be minor in consideration of planned protections during construction. The impacts would constitute a Section 4(f) temporary use exception per 23 CFR 774.13(d), and the Floyd River Paddle Route would be unaffected following Project completion.

Current design of the Cunningham Drive improvement avoids the south segment of the Floyd River Trail Connector along Dace Avenue/Leech Avenue, west of Cunningham Drive. However, the current design of an approximately 200-foot of trail segment along Leech Avenue, at the Cunningham Drive intersection and near the Lewis Boulevard intersection, overlaps with the Floyd River Trail Connector. The overlap of the Floyd River Trail Connector and the Project-associated multi-use path has been reduced to minimize reconstruction. The extent of impacts on the Floyd River Trail Connector would be minor. The impacts would constitute a Section 4(f) temporary use exception per 23 CFR 774.13(d).

Under the Proposed Alternative, an area between Gordon Drive and Correctionville Road would be acquired for the construction of the new BCC. After the conduit is installed, the Project would construct a new green space and multi-use path in this area. This would improve park and recreational resources and bicycle/pedestrian path connectivity.

5.1.8 Bicycle and Pedestrian Facilities

The area around the Project includes segments of the larger Sioux City Trail Network, which consists of shared roadway paths that serve a transportation purpose throughout Sioux City. The study area also includes sidewalks that facilitate pedestrian movement, including along the existing Gordon Drive viaduct, which is too narrow to allow two-way pedestrian traffic and commonly closes in winter due to accumulated snow. The disconnected sidewalks in the study area have sections that are uneven, are cracked, and have holes in the pavement. Existing gaps in sidewalk and multi-use pathway connectivity are documented and would be addressed by planned improvements to multi-use pathways and trails for bicycle and pedestrian traffic as part of the Project. Section 5.1.7 describes the Sioux City Trail Network and existing and future multi-use pathways and trails.

No-Build Alternative

Under the No-Build Alternative, the substandard sidewalk along the Gordon Drive viaduct would continue to inhibit bicycle and pedestrian traffic, and gaps in sidewalk connectivity would remain. The Floyd River Trail Connector would still be developed, but other proposed future pathways may or may not be designed and constructed if the Project were not developed.

Proposed Alternative

The Project would improve bicycle and pedestrian connections by reconstructing or adding 10- to 14-foot-wide sections of mixed-use paths throughout the study area. These paths would connect to the existing network of on-street trails in Sioux City. It is important to note that the Sioux City Trail Network consists of on-street trails that are not recreational. Therefore, existing and future recreational trails are not part of this on-street trail network. The proposed bridges and fill plug would include a 14-foot-wide pedestrian mixed-use path on the south side, which would extend south along the west side of Cunningham Drive to Leech Avenue and would connect to an existing shared roadway path along Leech Avenue. Another pedestrian mixed-use path would be constructed west of Lewis Boulevard and would connect to the shared roadway path along 3rd Street to the north and Leech Avenue to the south. The pedestrian mixed-use pathway would connect to the Floyd River Trail by a shared roadway path along 6th Street. Finally, a mixed-use path would be constructed above the proposed BCC between Gordon Drive and Correctionville Road from Lewis Boulevard to Rustin Street. The wider paths would allow pedestrians and people using bicycles, scooters, and skateboards to pass each other. Figure 5-1A shows the proposed mixed-use paths and sidewalks.

The Project would provide mixed-use paths and sidewalks in previously underserved areas. As detailed in Section 5.1.4, populations with disabilities would benefit from improved ADA-compliant mixed-use bicycle and pedestrian access.

5.1.9 Right-of-Way

As detailed in **Chapter 4**, and considering the heavily developed study area, ROW acquisition was carefully considered when analyzing design alternatives, including the Proposed Alternative.

No-Build Alternative

Under the No-Build Alternative, there would be no acquisition of ROW.

Proposed Alternative

Construction of the Project would require acquisition of approximately 22.4 acres of ROW: approximately 18.1 acres for the Gordon Drive viaduct and approximately 4.3 acres for the new BCC. Acquisition for the Project would include 27 total parcel acquisitions and 4 partial parcel acquisitions, which would potentially displace 24 properties and 6 billboards (see Table 5-4 and Figure 5-1A). Of the 24 potentially displaced properties, one is a residence near Rustin Street and Correctionville Road. The owner of this residence has requested early acquisition due to hardship.

The Project would acquire the property of multiple businesses, including a building supply company, a furniture and flooring company, a welding supply company, three convenience stores selling motor fuel, two car rental companies, three used car dealers, an outdoor media (billboard) company, a fast-food restaurant, a bar and a liquor store, a chiropractor office, a car

wash, several storage warehouses, a motel, a vacant commercial building, a Sioux City-owned parcel that was formerly a lumber company, and the vacant MidAmerican Energy property that is currently being acquired by Sioux City.

Table 5-4. Potential Property Acquisitions

Property Address	Property Type	Anticipated Parcel Acquisition
200 South Court Street	Commercial	Total
223 South Iowa Street	Commercial	Total
201 South Floyd Street	Commercial	Total
223 South Floyd Street	Commercial	Total
1421 1/2 Dace Avenue	Commercial	Partial
1427 Dace Avenue	Commercial	Total
1623 Dace Avenue	Commercial	Total
1711 Dace Avenue	Commercial	Partial
1713 Dace Avenue	Commercial	Total
1801 Dace Avenue	Commercial	Total
208 Cunningham Drive	Commercial	Total
212 Cunningham Drive	Commercial	Total
2121 Leech Avenue	Commercial	Partial
300 South Lewis Boulevard	Commercial	Total
2414 Gordon Drive	Commercial	Total
2500 Gordon Drive	Commercial	Total
2520 Gordon Drive	Commercial	Total
2520 2nd Street	Commercial	Partial
2420 Correctionville Road	Commercial	Total
2429 Correctionville Road	Commercial	Total
2505 Gordon Drive	Commercial	Total
101 South Linn Street	Commercial	Total
2609 Gordon Drive	Commercial	Total
2630 Correctionville Road	Commercial	Total
2801 Gordon Drive	Commercial	Total
2812 Correctionville Road	Residential	Total
2825 Gordon Drive	Commercial	Total
121 South Rustin Street	Commercial	Total
2901 Gordon Drive	Commercial	Total
2921 Gordon Drive	Commercial	Total
2921 Gordon Drive	Commercial	Total

5.1.10 Relocation Potential

As detailed in **Chapter 4** and considering the heavily developed study area, relocation potential was carefully considered when analyzing design alternatives, including the Proposed Alternative.

No-Build Alternative

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

Proposed Alternative

Anticipated acquisitions and relocations are detailed in Section 5.1.9 and are shown in Figure 5-1A.

A meeting with affected property owners was held on April 30, 2024, at the Sioux City Public Library. Some of the affected businesses indicated that they would attempt to relocate in the general area. Some property owners are considering relocation but have not decided. Some property owners did not attend the meeting, and their plans for relocation are not known at this time.

In November 2024, data were gathered using LoopNet to determine if comparable commercial lots are located in the area to which the potentially displaced properties could relocate. As of November 2024, no commercial buildings or lots were available within the study area; however, multiple retail and industrial spaces were for lease in Sioux City ranging from approximately 1,500 to 19,000 square feet. Multiple retail and industrial commercial buildings were for sale in Sioux City as well, including former pharmacy and fast-food/restaurant properties that would meet the needs of those displaced properties should they wish to relocate. Tracts of undeveloped commercial lots of varying acreages were also for sale in Sioux City that potentially displaced properties could acquire and build on. Based on current market data, comparable property appears to be available for the potential commercial displacements in Sioux City.

Acquisition procedures would adhere to both (1) Iowa Code 316, the “Relocation Assistance Law,” which establishes a uniform policy for the fair and equitable treatment of displaced persons that serves to minimize the hardships of relocation, and (2) the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended by the Surface Transportation Assistance Act of 1987 and 49 CFR 24, effective April 1989, which requires that relocation assistance be made available to all affected persons without discrimination.

5.1.11 Construction and Emergency Routes

This section discusses construction-related road closures, traffic delays, detours, and associated impacts on emergency access and routes. Construction-related impacts specific to transit are discussed in Section 5.1.12.

Emergency vehicles (ambulances, fire trucks, and police cruisers) respond to events using routes that are designated to reduce response times and account for access limitations. It is necessary that emergency response vehicles and services have adequate roadway access to all residential, commercial, and industrial structures. Nursing homes, hospitals, schools, daycares, and industries that handle hazardous materials are especially sensitive to delays in emergency response times, which can be prompted by construction activities.

Emergency response facilities for Sioux City include the following:

- Iowa Department of Public Safety, Division of Criminal Investigation (520 Nebraska Street #315)
- MercyOne Siouxland Emergency Care and Medical Center (801 5th Street)
- Sioux City Fire Station #3 (2630 3rd Street)
- Sioux City Fire Station #1 (315 9th Street)
- Sioux City Police/Fire Headquarters Building (601 Douglas Street)
- Woodbury County Sheriff (407 7th Street)

There are no emergency response facilities for Sioux City within the study area; however, the described facilities support residents and businesses within the study area. The police and fire response headquarters is located approximately 0.4 mile northwest of the study area. Five of the fire and law enforcement stations are west of the Floyd River, and two are east of the Floyd River. The closest fire station to the study area is Fire Station #3 near 3rd and Fairmount Streets. There are no police stations in or near the study area. All hospitals and community health centers are in the downtown area, to the north and west of the study area (City of Sioux City 2020).

No-Build Alternative

The No-Build Alternative would result in no construction-related road closures, traffic delays, or detours. Access to and from emergency services would continue along current routes, including the lane-restricted Gordon Drive viaduct. Expedited vehicular transport of persons requiring trauma or emergency care would not result from the No-Build Alternative. If the structurally deficient and compromised Gordon Drive viaduct does not receive the necessary improvements, emergency response times could increase as congestion increases and access could be substantially impacted if the Gordon Drive viaduct were closed or further restricted for safety.

Proposed Alternative

Temporary traffic delays and lane closures are anticipated during construction; however, the new Gordon Drive alignment would be constructed south of the existing viaduct in order to maintain two-lane, two-way traffic on the existing viaduct during construction.

The Project would be constructed in four primary stages with additional sub-stages to facilitate maintenance and traffic, for a total 38-month construction duration:

1. The first stage of construction is anticipated to last 24 months. The proposed Gordon Drive bridge structures, the fill plug and roadway between them, and proposed Cunningham Drive would be constructed south of the existing viaduct. Eastbound Gordon Drive from the west end of the Project to the Floyd River/UP bridge, eastbound Gordon Drive from the Bacon Creek/BNSF bridge to the west end of the Project, and portions of Lewis Boulevard south of Gordon Drive would also be constructed during Stage 1. Finally, most of the proposed Bacon Creek box culvert would be constructed in Stage 1. Two-lane, two-way traffic would be maintained on existing Gordon Drive viaduct and Lewis Boulevard with interchange movements detoured offsite during the Stage 1 construction duration.
2. The second stage of construction is anticipated to last 10 months. Gordon Drive traffic would be shifted to two-lane, two-way traffic on the newly constructed bridges and eastbound roadway for construction of westbound Gordon Drive through the sections

where it overlaps existing pavement. Lewis Boulevard traffic would be maintained in a two-lane, two-way configuration on existing pavement for construction of the north leg of Lewis Boulevard and its northbound pavement overlap areas. Finally, the remaining portions of the Bacon Creek box culvert would be constructed during Stage 2.

3. The third stage of construction is anticipated to last 3 months. Gordon Drive traffic would remain in two lanes but would use both sides of the new bridges and pavement, and Lewis Boulevard would be shifted to new northbound pavement. Stage 3 would construct Gordon Drive medians, the southbound Lewis Boulevard pavement overlap sections, and much of the trail system.
4. The fourth stage of construction is anticipated to last 1 month. Stage 4 would construct the Lewis Boulevard medians.

Some staging and lane restrictions would be required at intersections of Gordon Drive with Virginia Street and Lewis Boulevard; on Gordon Drive from Lewis Boulevard to Rustin Street; and at intersection of Gordon Drive with Wescott Street, Linn Street, Fairmount Street, and Rustin Street.

Short-term closures of Wescott Street, Linn Street, Fairmount Street, and Rustin Street would be needed for construction of Gordon Drive and of the new box culvert. Construction of each of these intersections and the segment of the new box culvert to the north of each of these intersections would be coordinated to maintain access to homes and businesses along the corridor. Occasional short-term closures of Correctionville Road would be required, and partial closures of Correctionville Road would occur frequently throughout the Project for operation of construction equipment and storage of Project materials.

When construction is complete, traffic operations would improve, and emergency services would have improved reaction time. The public safety facilities would not be directly impacted by the Proposed Alternative. Impacts on emergency services are expected to be minimal, and additional coordination with emergency service providers would occur during Project construction to facilitate planning alternate routes for emergency vehicles. At a minimum, temporary access would be provided so that fire protection, law enforcement, and other emergency services could be maintained for all businesses and residences.

5.1.12 Transportation

Transportation resources associated with the Project are focused on Gordon Drive (U.S. 20 BUS/IA 12), but also include the surrounding network of roads, railroads, and transit, all of which are discussed in this section. Bicycle and pedestrian facilities also contribute to the transportation infrastructure of the area; however, these resources are detailed in Section 5.1.8.

Gordon Drive traverses the Gordon Drive viaduct and serves as an Iowa state highway, a U.S. business highway, and a major east-west arterial street in Sioux City. Additionally, Gordon Drive provides an uninterrupted local corridor to the downtown area from areas east of U.S. 75 BUS/Lewis Boulevard. Average daily traffic volumes for Gordon Drive along the viaduct are 29,400 vehicles, of which 2.2 percent are trucks. Future average daily traffic is projected at 30,600 vehicles in 2030 and 32,900 vehicles in 2050.

The Gordon Drive viaduct spans tracks from both UP and BNSF. While the viaduct meets the vertical clearance requirements for UP, it falls short of necessary clearance for BNSF, impeding their ability to run double-stacked trains. For detailed information, refer to Section 3.2.1.

The Sioux City Transit System provides public transportation in the tri-state (Iowa, Nebraska, and South Dakota) metropolitan area, including Sioux City. The following three transit routes provide service in and around the study area:

- Route 1, Mall-Commons, runs from the downtown area to Southern Hills Mall. Through the study area, this route runs along Fairmount Street from 4th Street south to Leech Avenue, east on Leech Avenue to Rustin Street, and south on Rustin Street out of the study area. Bus stops are located at 4th and Fairmount Streets, 1st and Fairmount Streets, Fairmount Street and Gordon Drive, Fairmount Street at Dace Avenue, Leech Avenue and Fairmount Street, and Leech Avenue and Rustin Street.
- Route 6, Singing Hills, runs from the downtown area to Singing Hills Boulevard east of U.S. 75 BUS. Through the study area, this route runs north and south on Floyd Boulevard under the Gordon Drive viaduct to Dace Avenue, east and west on Dace Avenue to Cunningham Drive, and on Cunningham Drive out of the study area. Bus stops are located at Dace Avenue and Floyd Boulevard, Dace Avenue and Bluff Road (Exposition Center Drive), and Leech Avenue and Cunningham Drive.
- Route 10, Sunnybrook, runs from the downtown area to U.S. 75 BUS/U.S. 20 BUS and Sunnybrook Shopping Center. Through the study area, this route runs along Gordon Drive and the Gordon Drive viaduct east of Rustin Street and southeast along U.S. 20 BUS out of the study area. Bus stops are located at Gordon Drive and Virginia Street, at Jim's Burgers near Gordon Drive and Linn Street, on Gordon Drive east of Fairmount Street, on Gordon Drive near Alice Street, and at Gordon Plaza east of Alice Street.

No-Build Alternative

The No-Build Alternative would not replace the Gordon Drive viaduct. The structurally compromised, lane-limited roadway would continue to limit the transportation infrastructure along a vital urban corridor.

Proposed Alternative

As detailed in **Chapter 4, Section 4.6**, the Proposed Alternative would provide urgently needed improvements to Gordon Drive, Lewis Boulevard, and cross streets and intersections associated with the Project. The reconfigured at-grade intersection of Gordon Drive and Lewis Boulevard would be similar to other major intersections along Gordon Drive, better meeting driver expectations while upgrading a structurally deficient roadway to current design standards and improving mobility and safety along the corridor. The Project would optimize constructability and long-term maintenance requirements of Gordon Drive, and would ultimately satisfy the identified Project needs, as detailed in **Chapter 3**. Additionally, the Proposed Alternative would result in the following notable changes in traffic circulation:

- West of Lewis Boulevard, an at-grade roadway would be constructed under the existing Gordon Drive viaduct to provide access to cross streets between the area west of Stueben Street and the properties to the west of Cunningham Drive.

- An at-grade connection between Cunningham Drive and the Gordon Drive viaduct would be constructed to the south. Cunningham Drive north of Gordon Drive, which dead ends just north of Gordon Drive, would be closed.
- Morgan Street would be closed north and south of Gordon Drive.
- Gordon Drive would be median separated throughout the study area.
- The intersection of Wescott Street and Gordon Drive would be reconfigured to allow access south of Gordon Drive with limited right-in/right-out turns due to the new median. The connection to Wescott Street north of Gordon Drive would be closed, and traffic would use Lewis Boulevard or Linn Street to cross Gordon Drive to access the properties to the north.
- Gordon Drive would be a controlled access facility throughout the Project length between Virginia Street and Fairmount Street; therefore, driveways would not be constructed along the roadway. While access to all adjacent properties would be maintained through cross streets, there would be a minor impact because all business driveways and accesses would be provided from side streets.

The Proposed Alternative design assumes each existing railroad track would remain in place during and after completion of the Gordon Drive reconstruction. The proposed bridge designs would provide the current design standard of a minimum 23-foot, 6-inch vertical clearance at each existing track crossing to accommodate UP and BNSF minimum clearance requirements. This improvement would allow UP and BNSF to run double-stacked trains through the area.

Construction of the Gordon Drive viaduct and the BCC would temporarily disrupt transit service along Gordon Drive and Fairmount Street. Minor delays may occasionally occur due to traffic detours or short-term closures of limited segments of roadway. Delays due to detours and lane restrictions are anticipated to be no more than several minutes. Bus stops would temporarily be relocated up to 300 feet away from existing locations.

The Proposed Alternative would have only a minor effect on transit Route 1, Mall-Commons, and Route 6, Singing Hills. Route 1 would be detoured at least once during construction of the new BCC using 2nd Street, Wescott Street, and Dace Avenue. Route 6 would be mostly unaffected during construction. Although the existing viaduct would be removed after the new viaduct would be constructed, and a new Floyd River/UP bridge component of the Gordon Drive viaduct would be constructed over Route 6, short duration Floyd Boulevard closures should be limited to overnight periods or off-peak hours.

Consistent with the following, the Proposed Alternative would have a moderate effect on Route 10, Sunnybrook:

- The westbound Gordon Drive bus stop near Virginia Street would be directly impacted by construction for a prolonged duration and could be temporarily relocated west of Virginia Street. The eastbound Gordon Drive bus stop near Virginia Street would not be directly impacted by construction but would be located on a lane reduction or shift taper that would encourage temporary relocation further west.
- The westbound Gordon Drive bus stop near Linn Street would be directly impacted by both new BCC and Gordon Drive construction. This stop would require an extended temporary closure because it cannot be relocated west due to construction or east due to

the proximity of the next stop. Similarly, the eastbound Gordon Drive bus stop near Linn Street would also be directly impacted by Gordon Drive construction and would require an extended temporary closure for the same reasons.

- Direct impacts on the westbound and eastbound Gordon Drive bus stops near Rustin Street are not anticipated, though their proximity to lane reductions and shifting tapers may encourage temporary relocation somewhat further east.

5.2 Cultural Impacts

This section evaluates the direct and indirect impacts that the Project would have on cultural resources, including historical sites, historic districts, and archaeological sites.

Section 106 of the National Historic Preservation Act of 1966, as amended (16 USC 470f), requires federal agencies to take into account the effects of their undertakings on historic properties (any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP), to take steps to avoid these properties, and to minimize and mitigate adverse effects on historic properties.

5.2.1 Historical Sites or Districts

Potential historical sites and districts were reviewed in 2021 in the Area of Potential Effect (APE) for the initial Gordon Drive project study area, referred to as the initial project APE. A database search for NRHP-listed properties in or near the study area identified no NRHP-listed properties. Fieldwork for an Intensive Architectural/Historical Survey and Evaluation was conducted in March 2021. The survey and evaluation of the initial project APE resulted in the recording of 144 architectural properties. Of the 144 properties, 114 are of historic age (i.e., 45 years of age or older) and 30 are modern (less than 45 years of age). The 114 historic age properties were each assigned an Iowa Site Inventory Form (ISIF) number. None of the 30 modern properties qualified for NRHP eligibility; all were recommended for no further investigation. Of the 114 historic-age properties, 16 were recommended eligible or potentially eligible for listing in the NRHP, as shown in Table 5-5 (Tallgrass Archaeology 2021). Of the 16 eligible or potentially eligible properties, 11 would require additional research before a final determination could be made. No existing NRHP-eligible historic districts were identified. Iowa DOT submitted the report and ISIFs to the Iowa State Historic Preservation Office (Iowa SHPO) on June 24, 2021.

Table 5-5. Architectural Properties Recommended NRHP Eligible or Potentially Eligible within the Initial Project APE

Historic Name	ISIF No.	NRHP Recommendation	Address	Year Built
Dwelling	97-00066	Eligible	2922 Correctionville Rd	1880
Dwelling	97-00067	Eligible	3000 Correctionville Rd	1900
Hacker, Anton, House	97-00091	Potentially eligible	2715 Correctionville Rd	1890
Dwelling	97-00244	Potentially eligible	2512 1st St	1900
Dwelling	97-00245	Potentially eligible	2606 1st St	1890
Dwelling	97-00286	Potentially eligible	2625 1st St	1910
Swift & Co Poultry and Produce Plant	97-02496	Eligible	1804 Dace Ave	1926
Grand Avenue Viaduct ¹	97-02775	Eligible	Gordon Dr	1936–1937
Swift & Co Administration Building	97-03217	Eligible	1951 Leech Ave	1951
Dwelling	97-06053	Eligible	212 S Helen St	1917
Kay Dee Feed Company	97-06066	Potentially eligible	1919 Grand Ave	1928
Wilson Trailer Co.	97-06073	Eligible	2400 Leech Ave	1947
Tastee Inn & Out	97-06078	Eligible	2610 Gordon Dr	1955
Dwelling	97-06079	Potentially eligible	2613 Dace Ave	1900
Floyd River Flood Control Channel	97-06087	Eligible	Old Floyd River channel	1937–1940
Bacon Creek Conduit (Original) ²	97-06090	Eligible	Gordon Drive	1909–1910

¹ The Grand Avenue Viaduct is located along Gordon Drive and is a portion of the Project evaluated in this Environmental Assessment.

² The Bacon Creek Conduit (Original) is located beneath Gordon Drive and is referred to as the South Conduit in this Environmental Assessment.

As indicated in **Chapter 2**, after the Gordon Drive project began, rail line consolidation and realignment options were considered (but subsequently eliminated), and the BCC component was added. Consequently, the study area was expanded to include the rail line options considered, the BCC component of the Project, and a few added intersection improvements. The field investigation of the expanded study area occurred from June 5 to 7, 2023, and was documented in a Supplemental Intensive Historical and Architectural Survey and Evaluation report (Tallgrass Archaeology 2023a). The APE for this survey surrounds and extends the initial project APE and is referred to as the expanded Project APE. In total, 47 architectural properties were identified within the expanded Project APE: 33 are of historic age and 14 are modern. Additionally, six historic-age properties that were recommended for additional research in the initial survey were reexamined. None of the 14 modern properties qualify for NRHP eligibility, and all were recommended for no further investigation. Of the historic-age properties, 4 were recommended eligible for listing in the NRHP, including two houses, the Wilson Trailer Company, and the Illinois Central Freight Depot (see Figure 5-2).

The initial architectural evaluation had identified the two houses and the Wilson Trailer Company properties as potentially eligible, and the expanded review further evaluated the properties to recommend them eligible for NRHP listing. Four properties characterized as potentially eligible in the initial architectural evaluation were recommended as individually not eligible for listing in the NRHP after further review: Dwelling 97-00244, Dwelling 97-00245, Anton Hacker House 97-0091, and Kay Dee Feed Company 97-06066. As in the initial survey, no existing NRHP-eligible historic districts were identified. Table 5-6 documents the NRHP-eligible sites identified. Iowa DOT submitted the report to Iowa SHPO on November 6, 2023. On January 16, 2024, Iowa SHPO stated that they agreed with the individual property eligibility recommendations; however, they did not concur with the recommendation that the Rail Resources Historic District was not eligible for listing in the NRHP.

Table 5-6. Architectural Properties Recommended NRHP Eligible within the Expanded Project APE

Historic Name	ISIF No.	NRHP Recommendation	Address	Year Built
Dwelling*	97-00286	Eligible	2625 1st St	1910
Wilson Trailer Co.*	97-06073	Eligible	2400 Leech Ave	1947, 1960, 1962
Dwelling*	97-06079	Eligible	2613 Dace Ave	1920s
Albert, M., Grocery**	97-00100	Eligible	2829 Correctionville Rd	1930
Illinois Central Freight Depot	97-06104	Eligible	413 Clark St	1909, 1950s

* Properties previously recommended as potentially eligible that were reviewed further.

** Property on the edge of the APE that was previously identified as recommended eligible for listing in the NRHP.

In consideration of Iowa SHPO feedback, a supplemental evaluation of the potential historic district was conducted (Tallgrass Archaeology 2024a). The district was renamed the Sioux City Rail Yards and Industrial Potential Historic District (97-06100), with a boundary approximately defined within the expanded Project APE (see Figure 5-2). The wider boundaries of the district, including its extent to the north, south, and west, were not fully evaluated. Based on the supplemental evaluation, the district was recommended potentially eligible for listing in the NRHP. The district contains 7 sections of railroad and 48 buildings, structures, and objects that were reviewed. Of those, 5 sections of railroad and 9 buildings and structures were proposed as contributing resources. Iowa DOT met with Iowa SHPO on August 29, 2024, to address questions about the BCC and the historic district. As further evaluation of the historic district was beyond the scope of this Project, Iowa SHPO identified two additional properties (four buildings and structures) as contributing resources that were within or near the Project footprint: Kay Dee Feed Company (97-06066) and 1924 Westcott Street Concrete Bridge (97-06071). On September 4, 2024, Iowa DOT provided Iowa SHPO with clarified information for the two additional properties to show this Project would not adversely affect these properties. Table 5-7 lists the potentially eligible district and proposed contributing resources.

Table 5-7. Architectural Properties Recommended NRHP Eligible and Contributing within the Sioux City Rail Yards and Industrial Potential Historic District

Historic Name	ISIF No.	NRHP Recommendation	Address	Historic Components
Sioux City Rail Yards and Industrial Potential Historic District	97-06100	Potentially Eligible	Southeast portion of Sioux City	Eligible and Contributing Resources noted below
Illinois Central Freight Depot	97-06104	Eligible; Contributing to District	413 Clark St.	1 building
Warehouse and Railroad Spurs	97-06103	Contributing to District	116-120 S. Iowa St.	2 structures
Omaha Steel Bridge	97-06102	Contributing to District	Floyd River	1 structure
Union Pacific Bridge	97-06101	Contributing to District	Floyd River	1 structure
BNSF Railroad Bridge	97-06088	Contributing to District	Old Floyd River Channel	1 structure
Union Pacific Railroad Bridge	97-06089	Contributing to District	Old Floyd River Channel	1 structure
Sioux City Terminal Railway Engine House	97-03967	Contributing to District	102 Steuben St.	1 building
Kay Dee Feed Company	97-06066	Contributing to District	1919 Grand Ave.	3 buildings
1924 Westcott Street Concrete Bridge	97-06071	Contributing to District	2400 3rd St.	1 structure
Grain Elevator	97-03964	Contributing to District	105 Steuben St.	1 structure
Illinois Central Site (Railroad)	Component of 97-06100	Contributing to District	None specified	None specified
Sioux City and Pacific (Railroad)	Component of 97-06100	Contributing to District	None specified	None specified
Chicago and Northwestern (Railroad)	Component of 97-06100	Contributing to District	None specified	None specified
Sioux City and Northern (Railroad)	Component of 97-06100	Contributing to District	None specified	None specified
Union Pacific (Railroad)	Component of 97-06100	Contributing to District	None specified	None specified

No-Build Alternative

The No-Build Alternative would not involve construction of the proposed action. The Grand Avenue Viaduct (97-02775; now known as the Gordon Drive viaduct) and Bacon Creek Conduit (Original) (97-06090; known as the South Conduit) would not be replaced, and other historic properties would also not be affected. However, degradation of the viaduct and South Conduit would continue over time, and future deterioration or modification could result in the loss of historic integrity.

Proposed Alternative

Through the alternatives development process, the Project was designed in acknowledgement of environmental constraints, including historic architectural properties. Although impacts on several historic properties (those determined to be eligible or potentially eligible for listing in the NRHP) would be avoided, Grand Avenue Viaduct (97-02775) and Bacon Creek Conduit (Original) (97-06090) would be replaced, and impacts on those properties would be unavoidable. Impacts on the viaduct have been determined to result in an Adverse Effect to the property. For the BCC, several fill options to address the closing and abandonment of the original BCC were developed and coordinated with Iowa SHPO. The proposed use of removable fill with a bond breaker for closure and filling of the conduit would minimize the projects effects to the historic property and would not adversely affect its historical integrity. The Project will also not adversely affect the following properties: Floyd River Flood Control Channel (97-06087); Tastee Inn & Out (97-06078); Albert, M., Grocery (97-00100); and Sioux City Rail Yards and Industrial Potential Historic District (97-06100). To avoid inadvertent effects on these properties, Iowa DOT anticipates the use of standard avoidance protocols including restricted area demarcation on project plans, and a Special Provision will be put in place to limit the potential of vibrational effects on nearby eligible properties.

Iowa DOT submitted the Adverse Effect determination to Iowa SHPO on July 1, 2024. Iowa SHPO responded to Iowa DOT via email on August 1, 2024, that the effects on architectural resources were still under review. Iowa DOT coordinated with Iowa SHPO, who indicated that Kay Dee Feed Company (97-06066) and the 1924 Westcott Street Concrete Bridge (97-06071) were contributing resources to the Sioux City Rail Yards and Industrial Potential Historic District. On September 4, 2024, Iowa DOT provided further clarification to Iowa SHPO that the Project would not adversely impact the Kay Dee Feed Company property or the 1924 Westcott Street Concrete Bridge.

As discussed in Section 5.1.7, Section 4(f) of the USDOT Act of 1966 applies to protection of historic properties. FHWA determined that impacts on the Gordon Drive viaduct would constitute a Section 4(f) use and have been addressed through a Section 4(f) Programmatic Historic Bridge document (FHWA 2024). Impacts on the following historic properties have been identified as minor, and FHWA has determined that they constitute a Section 4(f) *de minimis* use: Bacon Creek Conduit (Original), Floyd River Flood Control Channel, Tastee Inn & Out, Kay Dee Feed Company, and Sioux City Rail Yards and Industrial Potential Historic District (FHWA 2024).

Iowa DOT developed a Documentation for Finding of Adverse Effect for the Grand Avenue Viaduct (97-02775) and two archaeological sites (addressed in the next section) and provided it to FHWA for submittal to the Advisory Council on Historic Preservation. Iowa DOT coordinated with Section 106 consulting parties to determine their interest in participating in the development of a Section 106 Memorandum of Agreement (MOA). The Sioux City Historic Preservation Commission will participate in the development of the MOA. A Draft Section 106 MOA has been developed to address the adverse effect on the viaduct and two archaeological sites (see Appendix B).

In the early to mid-2000s, Iowa DOT considered replacement of the Gordon Drive viaduct; however, by 2007 Iowa DOT decided on rehabilitation to further extend the bridge's life. An MOA was developed, stipulating that documentation of the bridge would be prepared. This

mitigation documentation was completed in the form of a booklet, *Sioux City's Grand Avenue Viaduct, 1936–2010* (Price 2010). Historic American Engineering Record (HAER) documentation of the bridge had been previously completed during Iowa's 1995 statewide bridge survey.

5.2.2 Archaeological Sites

The APE, as defined for historic sites and districts in Section 5.2.1, was evaluated for archaeological sites. Field investigations were conducted between September 14 and December 3, 2021, in the initial project APE. The investigations examined a total of 156 acres (63.18 ha) and identified 10 archaeological sites. Two sites were recommended as not eligible for listing in the NRHP for lack of sufficient integrity and/or significance and warranted no further archaeological investigation. Six of the sites were recommended for additional Phase I investigation to assist in site definition and assessment for potential NRHP eligibility. Following the Phase I investigation, two sites were recommended as potentially eligible and warranting Phase II testing if impacts on these two sites cannot be avoided. Iowa DOT submitted the results of the Phase I Intensive Archaeological Investigation (Tallgrass Archaeology 2022) to Iowa SHPO on July 25, 2022. Iowa SHPO concurred with these findings on August 18, 2022.

Supplemental field investigations to evaluate an additional 60.2 acres in the expanded Project APE, which was 216.2 acres (87.5 ha) in total, were conducted between May 15 and August 25, 2023. This supplemental survey also investigated areas where access had been denied previously and completed additional testing for the six sites previously recommended for additional Phase I investigation. The supplemental survey identified 5 additional archaeological sites; of the 15 total archaeological sites surveyed in the initial and supplemental Phase I investigations, 7 were recommended potentially NRHP eligible and for avoidance or Phase II evaluation. Iowa DOT submitted the Additional Phase I Archaeological Investigation (Tallgrass Archaeology 2023b) to Iowa SHPO on November 6, 2023. Iowa SHPO concurred with these findings on January 16, 2024.

Iowa DOT determined that of these seven sites, four cannot be avoided by the Project and were investigated through a Phase II evaluation. The Phase II Evaluations of Sites 13WD233, 13WD235, 13WD236, and 13WD244 for the Gordon Drive/Grand Avenue Viaduct Improvement Project (Tallgrass Archaeology, June 2024b) were conducted between February 19 and March 25, 2024. Sites 13WD233 and 13WD236 were recommended as not eligible for listing in the NRHP, and no further work was recommended. Sites 13WD235 and 13WD244 were recommended as eligible for listing in the NRHP; avoidance or Phase III Data Recovery were recommended for these two sites (see Table 5-8). Iowa DOT submitted the report to Iowa SHPO on June 12, 2024. Iowa SHPO concurred with these findings on August 5, 2024.

Table 5-8. Archaeological Site Recommendations as a Result of Phase II Survey

Site	Type	Cultural Affiliation	NRHP Recommendation	Notes
13WD233	Historic residential	19th to 20th Century Euro American	Not eligible	
13WD235	Historic residential	Early 20th Century Euro American	Eligible	Phase III Data Recovery proposed if site cannot be avoided.
13WD236	Historic residential	19th to 20th Century Euro American	Not eligible	
13WD244	Woodland Period scatter/historic scatter	Woodland Period / 19th to 20th Century Euro American	Eligible	Prehistoric component only; historic component is non-contributing. Phase III Data Recovery proposed if site cannot be avoided.

Tribes/Nations with interest in Woodbury County were provided with the findings of the initial Phase I Archaeological Investigation in June 2022; no responses were received. The Additional Phase I Archaeological Investigation results were provided in November 2023. The Pawnee Nation of Oklahoma and the Flandreau Santee Sioux Tribe responded with no objections. The Phase II archaeological evaluation results were provided in July 2024. The Omaha Tribe of Nebraska responded on July 25, 2024, with a request for tribal monitoring.

No-Build Alternative

The No-Build Alternative would not involve construction or excavation, and archaeological sites would not be affected.

Proposed Alternative

Through the alternatives development process, the Project was designed in acknowledgement of environmental constraints, including archaeological sites. Sites 13WD235 and 13WD244 are intersected by the current viaduct and roadway system, and impacts from demolition and reconstruction of the Project would be unavoidable. Much of the area of both sites would be affected, and minimization of effects on these sites is not feasible. Iowa DOT proposed an Adverse Effect determination for unavoidable impacts on these two archaeological sites, and indicated that Phase III Data Recovery is the likely mitigation option. Iowa DOT submitted the effect determination to Iowa SHPO on July 1, 2024. Iowa SHPO concurred with Phase II results and Adverse Effect determination for sites 13WD235 and 13WD244 on August 1, 2024.

Tribes/Nations with interest in Woodbury County were provided with the Adverse Effect determination on the two archaeological sites on August 8, 2024. The Iowa Tribe of Kansas and Nebraska responded on August 20, 2024, with concerns and a request for consultation. The Winnebago Tribe of Nebraska indicated on August 27, 2024, that they do not need to consult on this Project. The Pawnee Nation of Oklahoma responded on September 23, 2024, that they do not need to consult on this Project. The Flandreau Santee Sioux Tribe has requested complete avoidance of site 13WD235. Additionally, the Flandreau Santee Sioux Tribe, Iowa Tribe of

Kansas and Nebraska, and the Omaha Tribe of Nebraska have stated interest in having monitors present during data recovery efforts.

As discussed in Section 5.1.7, Section 4(f) applies to protection of historic properties. FHWA determined that archaeological sites 13WD235 and 13WD244 do not require Section 4(f) approval based on exception 23 CFR 774.13(b) because the resource is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place. As stated in Section 5.2.1, Iowa DOT has developed a Draft Section 106 MOA to address the adverse effects on sites 13WD235 and 13WD244, as well as the Grand Avenue Viaduct (97-02775) (see Appendix B). A proposed mitigation plan for impacts on the two archaeological sites and the viaduct would be developed.

5.3 Natural Environment Impacts

This section evaluates potential Project impacts on natural resources including wetlands, surface waters and water quality, floodplains, wildlife and habitat, and threatened and endangered species.

5.3.1 Wetlands

Waters of the United States, including wetlands, waterways, lakes, natural ponds, and impoundments, are regulated by USACE under Section 404 of the Clean Water Act, which requires a permit to authorize the discharge of dredged or fill material into waters of the United States (33 USC 1344.). Executive Order 11990, *Protection of Wetlands*, requires federal agencies (including FHWA) to implement “no net loss” measures for wetlands (42 Federal Register 26961). These no-net-loss measures include a phased approach to wetland mitigation, including (1) impact avoidance, (2) minimization of impacts if waters of the United States cannot be avoided, and (3) compensatory mitigation.

A field visit was conducted in July 2024 to identify wetlands and other waters. The Project is situated in a heavily developed urban landscape with no substantial natural areas or unaltered water resources (see Figure 5-3). The two waterways in the study area, the Floyd River and Bacon Creek, have been substantially altered by past flood control projects (see Section 5.3.2). Neither waterway has associated wetlands within the study area.

During Project scoping, the U.S. Environmental Protection Agency (EPA) and Iowa DNR recommended that impacts on wetlands and streams be avoided and minimized as much as possible. The agencies also noted that USACE authorization may be required (see **Chapter 7, Section 7.1.1**).

No-Build Alternative

The No-Build Alternative would not impact wetland resources.

Proposed Alternative

The Project is anticipated to avoid wetland impacts; however, a Clean Water Act Section 404 Nationwide Permit may be required for stream channel impacts (see Section 5.3.2). However, USACE will not issue a Section 404 permit until a Section 408 approval is issued, if required.

5.3.2 Surface Waters and Water Quality

Surface water was evaluated during the July 2024 wetland field visit. Because of the urban nature of the study area, only minor occurrences of natural streams were observed (see Figure 5-3). The Floyd River flows through a fully engineered channel, relocated approximately 0.5 mile east of its natural location. This artificial channel provides a conveyance function, but lacks fringe wetlands, diverse aquatic habitat, and general ecological value.

Bacon Creek is also heavily modified. However, an 830-foot-long section of slightly altered open channel remains between South Rustin Street and South Alice Street, and a 180-foot-long section of natural stream channel exists between the BCC and the lined channel west of Lewis Boulevard. The 830-foot-long section is wooded, with limited aquatic habitat and steep banks that prevent the presence of fringe wetlands. The 180-foot-long section is located at the outlet of the BCC. It also has limited aquatic habitat and steep banks that prevent the formation of fringe wetlands. The rest of Bacon Creek is either contained within the BCC or flows through an artificial, concrete-lined channel following the former streambed of the Floyd River before its relocation.

Iowa DNR's geographically referenced dataset of registered wells was used to determine the locations of existing wells within 500 feet of the study area (Iowa DNR 2022a). The latest data shows 45 existing wells in this area, 33 of which have the status "Not Used" or "Plugged." Of the 12 potentially active wells, 11 are west of the Floyd River. The remaining well is approximately 385 feet east of the Floyd River. The potentially active wells are categorized as follows:

- Active Monitoring Wells: There are six active monitoring wells owned by Anderson's Fertilizer Plant that were drilled in 2019.
- Dewatering Wells: One dewatering well, permitted with limited information, is owned by the City.
- Monitoring Well: One monitoring well, also permitted with limited information, is owned by AD, LLC.
- Status Unknown: Four wells, drilled between 1919 and 1946, have unknown status.

The study area is located in the Bacon Creek-Missouri River Watershed (U.S. Geological Survey Hydrological Unit Code: 102300010305) and the Floyd River Watershed (U.S. Geological Survey Hydrological Unit Code: 102300020504). Floyd River and Bacon Creek are tributaries to the Missouri River, which is directly south of the study area. Iowa DNR's most recent Section 303(d) List of Impaired Waters designates the Floyd River and Missouri River as impaired and in need of a total maximum daily load restoration plan (Iowa DNR 2022b). In the Floyd River, selenium is impairing aquatic life, while *Escherichia coli* (*E. coli*) is impairing primary contact recreation (EPA 2024a). In the Missouri River, flow regime and stream modification are impairing aquatic life, while *E. coli* is impairing primary contact recreation (EPA 2024b). Total maximum daily load plans are needed but not currently in place for the selenium and *E. coli* parameters in either waterway.

Iowa DNR, in its early agency coordination response, requested that best management practices be used to control erosion and water quality near the Project.

No-Build Alternative

The No-Build Alternative would not impact surface waters or water quality.

Proposed Alternative

The Proposed Alternative would result in less than 0.5 acre (or 300 linear feet) of stream channel impact. The new BCC would discharge into the existing concrete-lined portion of Bacon Creek at the current location of the BCC. The downstream concrete-lined section of Bacon Creek would be spanned and remain unaffected. The open, wooded section of Bacon Creek upstream of the current conduit would experience minor impacts east of South Rustin Street, where the new conduit inlet would replace the existing. The Floyd River's constructed channel would be entirely spanned by the Project, eliminating the need for fill activities below the ordinary high-water mark. However, existing piers would be excavated (removed) from the channel. Consequently, the Project would not diminish the quality of the Floyd River's constructed channel.

Beyond stream channel impacts, (1) no registered groundwater wells are expected to be impacted; (2) drainage structures would be designed to adequately convey surface water runoff, and (3) a Stormwater Pollution Prevention Plan would be prepared, and a National Pollutant Discharge Elimination System (NPDES) Construction General Permit would be acquired for the Project.

5.3.3 Floodplains

The regulatory framework pertaining to floodplains is Executive Order 11988, *Floodplain Management*, which requires federal agencies “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 for the study area was obtained from the Federal Emergency Management Agency online database in August 2024. Floodplain boundaries are shown in Figure 5-3.

Federal Emergency Management Agency Flood Insurance Rate Maps for the study area (19193C0182F & 19193C0201F) were updated on July 17, 2024, and show two Zone AE regulatory floodways in the study area: Floyd River in the western extent and the natural channel of Bacon Creek in the eastern extent. Immediately west of the Floyd River regulatory floodway, there are 0.2 percent annual chance flood hazard areas. The Bacon Creek regulatory floodway is surrounded by Zone AE 1 percent annual chance flood hazard areas (Base Flood Elevation of 1,100 to 1,105 feet) and limited 0.2 percent annual chance flood hazard areas. The concrete-lined span of the BCC (not a regulatory floodway) is also a Zone AE 1 percent annual chance flood hazard area within the study area. A 1 percent annual chance flood is also known as a 100-year flood, and a 0.2 percent annual chance flood is also known as a 500-year flood.

During early coordination, the Federal Emergency Management Agency suggested that a floodplain development permit be obtained from the City for portions of the Project in Special Flood Hazard Areas, as defined on the Flood Insurance Rate Maps.

Additionally, the Gordon Drive viaduct crosses the Floyd River flood control channel, which is administered by the City and regulated by the USACE Omaha District. The removal of the existing viaduct and construction of the replacement bridge would need USACE Section 408 permission to review the stability, functionality, and ability to perform in accordance with its authorized purpose for the flood control channel improvements. This process includes geotechnical and hydraulic analyses to assess the impact of pier placement and removal within the levee critical area (500 feet landward of the Floyd River Levees).

No-Build Alternative

As detailed in **Chapter 3, Section 3.2.2**, the existing BCC is undersized and does not have capacity to convey the 100-year discharge, leading to flood hazards downstream. Under the No-Build Alternative, the existing flood hazard would continue because the BCC improvements and associated flood flow conveyance benefits included in the Proposed Alternative would not be realized.

Proposed Alternative

Floodplains

The Proposed Alternative, including the replacement of the existing BCC with a triple 11-foot by 10-foot box culvert between Gordon Drive and Correctionville Road, would beneficially reduce anticipated impacts from 100-year flood events in the eastern portion of the study area. More specifically, the Bacon Creek 100-year floodplain would be reduced from approximately 43.1 acres to 24.5 acres (45 percent). The Floyd River and concrete-lined portion of BCC would not be impacted; both would retain conveyance of 100-year flood events under the Proposed Alternative.

The proposed Project would adhere to effective federal, state, and local floodplain regulations. Floodplain development permits would be coordinated with, and authorized by, Iowa DNR and the City prior to construction.

Levees

The Floyd River Levees were originally constructed by USACE. Construction was completed in 1966, and the Floyd River Levees were turned over to the City for operations and maintenance. As USACE-constructed levees, any modifications, occupation, or alterations within the levee ROW or within the USACE Omaha District's defined critical area are subject to authorization under the Section 408 program. The critical area is defined as 300 feet riverward and 500 feet landward of the levee centerline.

As mentioned above in Section 5.3.3, the Gordon Drive viaduct crosses the Floyd River flood control channel. The removal of the existing viaduct and construction of a replacement bridge would require USACE Section 408 permission. This permission necessitates a Section 408 request for USACE to document that the Project would not adversely impact the Floyd River Levees or the Floyd River, and that the Project would not be injurious to the public interest. This Section 408 request will include technical analyses, evaluations, and environmental documentation in accordance with USACE Engineering Circular 1165-2-220.

For the Proposed Alternative, impacts within the Floyd River flood control channel from existing pier removal and new pier construction would be unavoidable. However, no excavation would occur in the 500-foot critical area or the levee ROW because the Project would cross only the flood control channel; the Floyd River Levees terminate approximately 800 feet north of the proposed bridge. The overall impacts on the Floyd River flood control channel are anticipated to be similar in magnitude to the existing conditions. Iowa DOT is coordinating with the City and the USACE Omaha District concerning Section 408 approval and would submit a design package for review and approval prior to Project construction.

During final design activities, if the need arises to drill borings or otherwise excavate within the federally authorized levee ROW during Project construction, the City and USACE will be notified and coordinated with to determine potential effects on the flood control project and to give the City approval to conduct such activities.

The physical improvements associated with the Proposed Alternative would not affect the ability of the Floyd River flood control channel to continue to function as intended. The Project would not result in any increase in flooding in the area protected by the Floyd River Levees. The City would continue to operate and maintain the Floyd River flood control channel and the levee system. The Proposed Alternative would not be injurious to the public interest and would not impair the usefulness of the Floyd River Levees because the levee integrity and other components of the flood risk reduction system would not be adversely affected, and there would be no increase in flooding in the area protected by the Floyd River Levees. Similarly, impacts of the Proposed Alternative on other resources would not be injurious to the public interest because the Floyd River flood control channel would be protected. Therefore, floodplain impacts are not anticipated to be substantial.

5.3.4 Wildlife and Habitat

The urban study area is dominated by existing transportation ROW and commercial and industrial properties. Where present, vegetation is mowed. No prairie remnants, sedge meadows, or other unique or rare wildlife habitats or plant communities occur in the study area.

The Floyd River, which is channelized and leveed with stabilized banks, runs through the study area. Above the bank line, the waterway has terraces exhibiting a mixture of herbaceous and scrub-shrub vegetation along with evidence of consistent disturbance due to channel maintenance.

A wooded area at the east end of the Project, near the open section of Bacon Creek, is the most distinct wildlife habitat in the study area. However, this corridor is dominated by tree of heaven (*Ailanthus altissima*), which is an invasive species that quickly colonizes and out-competes other species. This wooded riparian corridor may provide habitat for common nesting birds, raccoons, opossums, and other wildlife but does not likely provide suitable habitat to more conservative wildlife species. Other scattered aggregates of mature trees, each less than 1 acre in size, are also present near the U.S. 75 BUS/U.S. 20 BUS interchange and in residential areas east of U.S. 75 BUS and north of U.S. 20 BUS.

No-Build Alternative

The No-Build Alternative would not impact wildlife or associated habitat in the study area.

Proposed Alternative

Considering the urban study area and general lack of habitat, the Proposed Alternative would have minimal impact on wildlife. During construction, construction noise and vibration may temporarily displace the limited resident wildlife.

The Project would require limited tree and vegetation clearing and would adhere to Migratory Bird Treaty Act provisions. Tree clearing would not occur between April 1 and September 30 to protect nesting migratory birds. If tree clearing is necessary during this period, a qualified biologist would conduct a pre-construction survey for nesting birds. If nesting birds are found, tree clearing would be postponed until the young birds have left the nest. If no nesting birds are found, tree clearing can proceed as planned. If construction begins and an occupied nest is discovered, work would stop immediately. Consultation with the U.S. Fish and Wildlife Service would be initiated, and construction would resume only upon consultation completion.

5.3.5 Threatened and Endangered Species

In compliance with Section 7(c) of the Endangered Species Act of 1973, the Project was evaluated for its likelihood of impacting threatened and/or endangered species and/or their habitat. During early agency coordination, the U.S. Fish and Wildlife Service provided a link to the Region 3 Technical Assistance website for habitat descriptions and species information. Iowa DNR did not comment regarding species. A review of threatened, endangered, candidate species, or designated critical habitat potentially occurring within the Project area was completed using the USFWS Information for Planning and Consultation (IPaC) website. The IPaC species list indicated that four species might occur within the Project area, but no designated critical habitats are present in or near the Project area for any federally listed species. Although IPaC listed four species that could occur in the vicinity of the Project area, Iowa DOT determined that suitable habitat was not present for the federally threatened piping plover (*Charadrius melodus*), federally endangered pallid sturgeon (*Scaphirhynchus albus*), or federally proposed-threatened monarch butterfly (*Danaus plexippus*).

A presence or probable absence survey for the federally endangered northern long-eared bat (*Myotis septentrionalis*) and the federally proposed-endangered tricolored bat (*Perimyotis subflavus*) was conducted in 2024 (Stantec Consulting Services 2024). Less than 123 acres of suitable habitat was identified within the survey area, requiring a minimum survey effort of 14 detector nights. Four detectors were placed at two sites for a total of 21 detector nights over the survey period. Of eight possible bat species, acoustic surveying equipment (Kaleidoscope Pro) identified six bat species as present at the BCC survey area: big brown bat, eastern red bat, hoary bat, silver-haired bat, little brown bat, and northern long-eared bat. Two species (big brown bat and eastern red bat) were identified at all four detectors. Specifically, Detector East-02 recorded northern long-eared bat calls with MLE values of <0.05, but qualitative review indicated probable absence of northern long-eared bats during the summer maternity season. No detectors recorded tricolored bat calls with an MLE value of <0.05, leading to a determination of probable absence of tricolored bats during the summer maternity season.

The survey determined the small riparian corridors at both the east and west entrances of the BCC to be potentially suitable summer roosting habitat (see Figure 5-3). The existing BCC was identified as a potentially suitable structure for roosting. However, survey results indicate that bats are not using the BCC as a day roost. The spikes at sunset at detectors East-01 and East-02

were not followed by corresponding spikes at sunrise, further suggesting that the BCC is not being used as a day roost.

Ultimately, the survey resulted in a determination of probable absence of both northern long-eared bats and tricolored bats in the study area. This suggests that both BCC and the surrounding habitat are not suitable summer habitat for northern long-eared bats and tricolored bats.

No-Build Alternative

The No-Build Alternative would have no effect on threatened and endangered species.

Proposed Alternative

On August 13, 2024, Iowa DOT, under delegated authority provided by FHWA, determined that there would be No Effect on federally or state-listed species and that the Project would not result in the destruction or adverse modification of federally designated critical habitat (Iowa DOT 2024b).

5.4 Physical Impacts

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

5.4.1 Noise

A traffic noise study was completed for the Project (HDR 2024). The study was conducted in accordance with Iowa DOT Policy Number 500.07, Highway Traffic Noise Analysis and Abatement, and the requirements set forth in FHWA's Noise Standard at 23 CFR 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).

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 receptors (those with the highest noise levels) for their respective common noise environments. Noise abatement criteria (NAC), which are dB(A) noise standards associated with different land uses, are described in Table 5-9. Modeled receptors are shown in Figure 5-4, and Table 5-10 describes the width of FHWA NAC noise contours. The locations used for the noise analysis are based on anticipated frequent human use areas. For the analysis, noise impacts were evaluated for Activity Categories B, D, and E.

Table 5-9. Noise Abatement Criteria

Activity Category	Activity $L_{eq(h)}$ ¹		Evaluation Location	Description of Activity Category
	FHWA	Iowa DOT		
A	57	56	Exterior	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 ²	67	66	Exterior	Residential
C ²	67	66	Exterior	Active sports areas, amphitheatres, 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, recreational areas, Section 4(f) sites, schools, television studios, trails, and trail crossings
D	52	51	Interior	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 ²	72	71	Exterior	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

Note: Based on Table 1 of 23 CFR 772.

¹ Hourly equivalent sound level measured in dB(A). The $L_{eq(h)}$ Activity Criteria values are for impact determination only and are not design standards for noise abatement measures.

² Includes undeveloped lands permitted for this activity category.

Table 5-10. Noise Contours

Roadway Segment	Activity Category	Noise Level $L_{eq(h)}$ dB(A)	Approximate Width of FHWA Noise Abatement Criteria (Distance in feet from edge of Proposed Roadway)
			2050 Proposed Build Alternative
Gordon Drive (East of Fairmount St)	B & C	66	≈ 30
Gordon Drive (East of Fairmount St)	E	71	within ROW
Lewis Boulevard (North of Gordon Dr)	B & C	66	within ROW
Lewis Boulevard (North of Gordon Dr)	E	71	within ROW

No-Build Alternative

Noise impacts are not predicted to occur for the No-Build Alternative.

Proposed Alternative

Table 5-11 shows 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. Modeled noise level differences vary from -1.8 dB(A) to 7.1 dB(A) when comparing 2019 existing noise levels to 2050 Proposed Build Alternative noise levels. Traffic noise impacts were not identified as a result of the Project; therefore, noise abatement measures were not considered or evaluated for feasibility and reasonableness in accordance with FHWA and Iowa DOT guidance.

The 2019 existing condition model was validated prior to the construction project to repair the bridge piers.

Table 5-11. Predicted Noise Levels at Project Receptors

Receiver	Activity Category	Noise Abatement Criteria $L_{eq(h)}$ (dB(A))	Distance from Existing Centerline (feet)	L_{eq} (dB(A))				
				2019 Existing Noise Level	2050 Proposed Build Alternative Noise Level	Increase over Existing Noise Level	≥ 10 dBA Increase over Existing Noise Level?	≥ IDOT NAC?
1	B	66	91	53.4	54.3	0.9	No	No
2	B	66	141	54.3	55.8	1.5	No	No
3	B	66	94	50.7	53.1	2.4	No	No
4	B	66	91	51.1	53.3	2.2	No	No
5	B	66	71	52.5	54.7	2.2	No	No
6	B	66	59	54.4	55.6	1.2	No	No
7	B	66	45	54.5	58.0	3.5	No	No
8	B	66	85	48.9	48.6	-0.3	No	No
9	B	66	85	49.5	49.1	-0.4	No	No
10	B	66	81	51.8	51.5	-0.3	No	No
11	B	66	91	51.6	50.8	-0.8	No	No
12	B	66	21	64.4	64.5	0.1	No	No
13	B	66	80	53.3	53.1	-0.2	No	No
14	B	66	71	51.6	50.6	-1.0	No	No
15	B	66	67	48.3	47.3	-1.0	No	No
16	B	66	51	50.3	49.1	-1.2	No	No
17	B	66	36	61.5	59.7	-1.8	No	No
18	B	66	37	60.8	59.2	-1.6	No	No
19	B	66	42	59.6	58.1	-1.5	No	No
20	B	66	43	50.7	50.0	-0.7	No	No
21	B	66	84	49.9	48.4	-1.5	No	No

Receiver	Activity Category	Noise Abatement Criteria $L_{eq(h)}$ (dB(A))	Distance from Existing Centerline (feet)	L_{eq} (dB(A))				
				2019 Existing Noise Level	2050 Proposed Build Alternative Noise Level	Increase over Existing Noise Level	≥ 10 dBA Increase over Existing Noise Level?	\geq IDOT NAC?
22	B	66	85	49.1	48.5	-0.6	No	No
23	B	66	94	48.4	47.8	-0.6	No	No
24	B	66	93	48.1	48.0	-0.1	No	No
25	B	66	90	47.6	47.5	-0.1	No	No
26	B	66	66	46.8	47.2	0.4	No	No
27	B	66	26	57.0	55.5	-1.5	No	No
28	B	66	55	53.2	52.1	-1.1	No	No
29	B	66	77	51.5	50.5	-1.0	No	No
30	B	66	95	47.9	47.2	-0.7	No	No
31	B	66	67	47.5	47.1	-0.4	No	No
32	B	66	30	47.3	46.8	-0.5	No	No
33	B	66	29	47.1	46.7	-0.4	No	No
34	B	66	88	58.6	58.6	0.0	No	No
35	B	66	102	44.5	44.0	-0.5	No	No
36	B	66	95	45.1	45.9	0.8	No	No
37	B	66	110	47.2	47.2	0.0	No	No
38	E	71	76	54.9	54.8	-0.1	No	No
39	E	71	121	52.1	51.5	-0.6	No	No
40	B	66	135	57.7	56.7	-1.0	No	No
41	E	71	45	66.6	65.2	-1.4	No	No
42	B	66	95	54.9	54.4	-0.5	No	No
43	B	66	65	56.6	55.7	-0.9	No	No
44	E	71	74	65.5	65.2	-0.3	No	No
45	B	66	84	51.7	58.8	7.1	No	No
46	B	66	87	52.0	59.0	7.0	No	No
47	B	66	96	54.7	57.0	2.3	No	No
48	B	66	106	54.7	57.1	2.4	No	No
49	B	66	88	55.8	58.5	2.7	No	No
50	B	66	72	55.2	58.2	3.0	No	No
51	B	66	111	55.7	59.0	3.3	No	No
52	B	66	103	55.7	58.7	3.0	No	No
53	D	52	54	44.0	47.4	3.4	No	No
54	E	71	49	54.2	60.8	6.6	No	No
55	E	71	151	58.9	59.4	0.5	No	No

NAC = noise abatement criteria

5.4.2 Contaminated and Regulated Materials Sites

Regulated materials include hazardous materials sites and hazardous waste sites, either from the presence of stored materials or because of past spills or leaks. 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.

Considering the area's past use as stockyards and supporting industries, many regulated materials sites exist within the study area. Regulated materials reviews were conducted in April 2019, September 2020, and January 2024 to identify and describe regulated materials sites in and near the study area. The reviews were intended to identify properties with potential or known recognized environmental conditions and were based on a review of Iowa DNR, EPA, and Woodbury County Assessor online databases; historical aerial photos; Sanborn maps; company websites; and Google Earth photography. On January 11, 2024, Iowa DOT identified 17 low risk sites, 42 moderate risk sites, and 8 high risk sites, as shown in Figure 5-4 (Iowa DOT 2024c).

Low risk sites do not warrant further analysis and are not further documented herein. Additionally, the 42 moderate risk sites and 13 of the 17 high risk sites do not warrant further analysis. The moderate risk sites do not require immediate or extensive remediation and would be managed through standard regulatory compliance measures during construction. The 13 dismissed high risk sites are either outside of the anticipated construction limits or have existing remediation plans that mitigate their impact potential. Detailed assessments and management plans for these sites may be developed during final design if necessary to facilitate compliance with regulatory requirements and to minimize potential impacts.

The following four high risk sites occur within or adjacent to the study area and have noted potential to affect construction activities:

- Former Manufactured Gas Plant: Located near 110 to 120 South Court Street, this plant has remaining soil and groundwater contamination on site. An electric transmission facility occupies a portion of this area, with high-voltage transmission lines extending north, east, and south through the study area.
- Kum & Go #251: Located at 1005 Gordon Drive, this site contains a leaking underground storage tank with documented contamination and a history of free product in the soil and groundwater.
- Bacon Creek Country Store (formerly Bacon Creek General Store): Located at 2520 Gordon Drive, this is a leaking underground storage tank site with an extensive history of free product in soil and groundwater.
- Select Mart: Located at 2825 Gordon Drive, this site is a leaking underground storage tank site with extensive history of free product.

No-Build Alternative

The No-Build Alternative would not involve construction or excavation, and regulated materials sites would not be affected. No contaminated or regulated materials would be encountered.

Proposed Alternative

The Proposed Alternative would avoid disturbing the former manufactured gas plant and Kum & Go #251; however, there is a potential for exposure to contaminated soils or groundwater when removing and replacing pavement along Gordon Drive adjacent to these two properties.

The Bacon Creek Country Store and Select Mart properties would be full acquisitions. Excavation near these sites has the potential to encounter contaminated soil and groundwater. Actual impacts on, or avoidance of, regulated materials would be determined during final design.

Other than waste generated during normal construction and demolition activities, the Project would not generate any regulated materials. All known and unknown hazardous materials encountered during roadway construction would be handled according to federal, state, and local laws and regulations. Where hazardous material or solid waste is identified in the required ROW acquisitions, resolution with the property owner would be conducted prior to purchase. If an unknown site is encountered during construction, Iowa DOT and Iowa DNR would be contacted, and appropriate laws and EPA regulations would be followed to eliminate or minimize any adverse environmental consequences.

Any underground storage tanks found during construction would be mitigated and managed individually. Any contaminated material excavated during construction would be addressed, but Iowa DOT has no obligation to investigate or otherwise address a contamination plume extending beyond the grading and excavation limits.

If any contamination above regulatory limits is encountered at any point during Project construction, work would stop and Iowa DOT would be notified. Proper handling and disposal of any contaminated soil (including decontamination of equipment) would be warranted. In the event of a release of a hazardous substance in an amount equal to or greater than the reportable quantity established by EPA, the responsible party would contact the EPA's National Response Center. Details of the incident would be reported, and measures would be taken to reduce the effects of the release.

Standard best management practices would be used for demolition, clearing, and grubbing. Buildings identified for demolition would be thoroughly inspected for stored hazardous materials and hazardous materials used in the building's construction such as asbestos and mercury-containing materials.

5.4.3 Visual

Land uses adjacent to Gordon Drive are primarily commercial and industrial, and the surrounding visual landscape has been heavily influenced by the Gordon Drive viaduct since it was constructed in 1936 and later widened from two lanes to four lanes in 1965. The only notable visual resource is the Floyd River.

In considering visual interests and recreation, the Gordon Drive viaduct can be seen from only existing recreational areas on the western bank of the Missouri River that have an unobstructed view. Such areas include the Jeffrey Dible Soccer Complex and the Scenic Park RV Campground. The only residential areas that may have a view of Gordon Drive are single-family houses on 1st Street.

No-Build Alternative

The No-Build Alternative would largely perpetuate the existing visual environment, which includes the aging, deteriorating, and visually unappealing transportation infrastructure.

Proposed Alternative

The Proposed Alternative would result in the off-alignment construction of two bridges south of the existing viaduct and the associated demolition and removal of the existing historic transportation asset. In combination, these Project-associated activities would negligibly alter the visual landscape of the study area, which is already subject to the visual impacts of transportation infrastructure.

Drivers and passengers traveling along Gordon Drive would experience an enhanced visual environment due to the new green space and mixed-use path above the new box culvert. This transformation from commercial properties and concrete lots to a landscaped area would provide a more aesthetically pleasing experience. The visual impact on adjacent commercial, industrial, and residential properties would also be positive. The new bridges and green space would be designed with high-quality materials and architectural features that would improve the overall visual appeal. The design quality, art, and architecture are being carefully considered to complement the surrounding environment and would provide a direct benefit to the Project-associated visual landscape.

5.4.4 Utilities

The study area contains numerous energy, water, electric, and communication utilities. Known utility providers with infrastructure located within the study area include:

- AT&T
- Aureon
- City of Sioux City - Communications
- City of Sioux City - Electric
- City of Sioux City - Storm
- City of Sioux City - Wastewater
- City of Sioux City - Water
- Cogent
- Fibercomm
- Iowa DOT Communications
- Iowa DOT Electric
- Long Lines
- Lumen
- Metronet
- MidAmerican Energy Distribution
- MidAmerican Energy Fiber Optics
- MidAmerican Energy Gas
- MidAmerican Energy Transmission
- Midwest Fiber Networks
- NIPCO
- Sparklight
- Verizon/MCI

Utility conflicts have been identified, and coordination regarding proposed utility relocations is ongoing.

No-Build Alternative

The No-Build Alternative would not impact utilities.

Proposed Alternative

The Proposed Alternative would directly impact buried utilities due to excavation, deep foundation construction for retaining walls and bridges, and culvert construction. Sioux City's water and sanitary sewer mains that conflict with the proposed Gordon Drive retaining wall and bridge construction would generally be relocated. Water and sanitary sewer lines near the BCC would either be relocated or reconstructed in similar locations to facilitate the staged construction of the box culvert. Most relocations of water and sanitary sewer lines are expected to occur concurrently with Project construction.

MidAmerican Energy has buried gas mains, distribution lines, and service lines that conflict with the proposed Gordon Drive construction, including a 16-inch high-pressure gas main attached to the existing viaduct. These gas lines would be relocated if they conflict with the Gordon Drive bridge and retaining wall construction. Distribution lines impacted by the BCC construction would generally be relocated parallel to existing lines, further from the box culvert. The relocation of MidAmerican Energy gas mains and lines is expected to occur before the roadway, bridge, and culvert construction begins.

Numerous communication lines, including large-count fiber optic lines, would be relocated due to the direct impacts of Project construction. It is anticipated that these fiber optic lines would be consolidated into multi-duct conduits or utility corridors to minimize potential conflicts during construction. Fiber optic line relocations are expected to occur before construction begins.

The Proposed Alternative would also impact aerial utilities due to direct conflicts with poles and supports. MidAmerican Energy has several transmission and distribution lines crossing and paralleling the corridor that would be relocated. Two transmission lines that cross the existing viaduct would remain after construction, but the lines would be raised to provide clearance, and poles would be relocated due to direct impacts. Other parallel and crossing distribution lines in the corridor would also be relocated. Some communication lines co-located on overhead power poles would be relocated. Most aerial utilities are expected to be relocated before the construction of the Gordon Drive viaduct and new BCC.

Opportunities to avoid and minimize utility impacts would be investigated during final design. Utility service to properties in the study area would be maintained during Project construction. If any unanticipated disruptions occur, service would be promptly restored by the utility owners.

5.5 Cumulative Impacts

Cumulative impacts result from the combined effects of past, present, and reasonably foreseeable future actions along with the potential impacts of the proposed project. These impacts can be individually minor but collectively substantial over time. A cumulative impact assessment evaluates the collective effects of plans and projects in the same area as the proposed project. The below-listed past and reasonably foreseeable future actions are cumulatively considered in relation to the Project. There are no present actions currently underway in the study area.

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

- **Gordon Drive viaduct:** A two-lane viaduct was originally constructed in 1936 to provide grade-separated access above rail lines and to elevate Gordon Drive above an area susceptible to flooding. The viaduct has been updated with several projects (reconfigured in 1962 and widened to four lanes in 1965) and maintained since that time.

- BCC: To assist in reducing flooding risk, a system of culverts was installed. The original culvert (South Culvert) was completed in 1910, followed by the Center Culvert in 1933 and the North Culvert in the 1960s.
- Residential development: Development of residences in the study area occurred in the mid- to late 19th century, with the Greenville neighborhood in the northeast portion of the study area. The South Bottoms residential area was in the southwest portion of the study area but was largely eliminated when the Floyd River was rechanneled in the early 1960s.
- Commercial development: Commercial development to support the stockyards, railroads, and nearby residential development occurred in the mid- to late 19th century and has continued to present day. As part of plans to expand and build a regional service center, MidAmerican Energy, one of Sioux City's leading employers, relocated outside of the study area.
- Bacon Creek and Floyd River channel modifications: Bacon Creek was diverted to the former Floyd River channel, which was lined with concrete in 1937 to 1940 as part of a Works Progress Administration project for flood control. The Floyd River was rechanneled to its current location in the 1960s.
- Sioux City stockyards and meatpacking industries: The stockyards and associated meatpacking industries were established in the late 19th century and dominated the central portion of the study area.
- Railroads: Railroads existed in the study area in the mid- to late 19th century, primarily serving the stockyards and meatpacking industries. As the stockyards and packing plants declined through the late 20th century, the rail line use also declined, but the rail lines are still in service in this area.
- I-29 improvements: I-29 was constructed through Sioux City in the late 1950s and underwent major reconstruction in the 2010s.

The past actions have highly modified the natural environment in and near the study area. The development of the original Gordon Drive viaduct and the BCC, channel modifications, and railroads within the study area supported development of the Sioux City stockyards and meatpacking industries. Nearby residential development occurred to support these industries. The development and expansion of I-29 facilitated access to and from the industries and railroads in the study area.

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

- Floyd River Trail Connector and other unnamed trails: The City and Iowa DOT are coordinating and cooperating on design of the Floyd River Trail Connector and other unnamed trails planned to be developed within the study area. The specific alignments, dimensions, and extent of the trails are being planned in conjunction with the Project, particularly the multi-use paths and sidewalks designed to improve pedestrian mobility and connectivity to existing pedestrian pathways.

- Sioux City/EPA Bacon Creek Naturalization Project: The naturalization project is in early planning stages and would involve removing the concrete layer within the Bacon Creek channel. The concrete channel extends from approximately 180 feet downstream of the west end of the BCC to near where Bacon Creek discharges into the Missouri River. The project is planned for construction after the Gordon Drive and BCC Project is completed and would be designed in consideration of pier locations of the bridge spanning Bacon Creek.
- Ponca Tribe of Nebraska New Campus: The Ponca Tribe of Nebraska owns the parcel at 601 Cunningham Drive (south of the Home Depot) and plans to create a campus with office, medical, and transportation facilities.

5.5.1 No-Build Alternative

Because the No-Build Alternative would not directly affect surrounding resources, it would not contribute to cumulative impacts otherwise realized by past, present, and reasonably foreseeable future actions.

5.5.2 Proposed Alternative

The Proposed Alternative is anticipated to directly or indirectly affect (often beneficially) the resources listed below. As such, the Proposed Alternative would contribute to past, present, and reasonably foreseeable cumulative impacts on these resources, as stated in the following:

- Bicycle and Pedestrian Facilities: The Proposed Alternative would improve pedestrian mobility and connectivity through the development of multi-use paths and sidewalks that would integrate with previously developed bicycle and pedestrian facilities. Additionally, Project-associated mixed-use pathways would connect to the planned Floyd River Trail, including a segment above the proposed BCC between Gordon Drive and Correctionville Road from Lewis Boulevard to Rustin Street.
- ROW and Relocation Potential: Past infrastructure projects, including the original construction of Gordon Drive, Lewis Boulevard, and I-29, have facilitated development in the immediate and surrounding areas and have benefited developers, businesses, and property owners by providing access to a functioning roadway system. The Proposed Alternative would replace and expand portions of the previously developed roadway system in order to facilitate the continuation of its intended purpose and to continue to benefit surrounding properties. In doing so, the Proposed Alternative would unavoidably require ROW acquisition and associated relocations, as detailed in Sections 5.1.9 and 5.1.10. Because these impacts on affected property and business owners would be unavoidable, and because affected property and business owners would be appropriately compensated in accordance with state and federal statutes, ROW and relocation impacts resulting from the Proposed Alternative are not anticipated to be cumulatively substantial, in consideration of past, present, and reasonably foreseeable actions.
- Transportation: In association with all surrounding and previously developed transportation infrastructure, the Proposed Alternative would restore and improve vehicular capacity and safety while enhancing transportation system linkage and increased mobility in and near the study area.

- Floodplains: The Proposed Alternative would enhance the previously developed BCC and would work in parallel with the Bacon Creek and Floyd River channel modification projects to manage stormwater, convey 100-year flood flows, and reduce flood risk.
- Cultural Resources: The Proposed Alternative would have an unavoidable adverse effect on cultural resources, including the Grand Avenue viaduct and Bacon Creek Conduit (Original). The adverse effect has been coordinated with Iowa SHPO and is being addressed via an MOA and data recovery plan. Considering the mitigative measures and acknowledging past impacts on cultural resources via historic and continued development in Sioux City, the Proposed Alternative is not anticipated to substantially contribute to cumulative impacts on cultural resources.
- Economic: The Proposed Alternative would improve access off Gordon Drive, add multi-use pathways and sidewalks, and improve bicyclist and pedestrian pathway connectivity in the study area. Although conversion of property to ROW would initially reduce the tax base negligibly in Sioux City, the improved transportation network could encourage future redevelopment in the area (such as the Ponca Tribe of Nebraska campus) and would eventually increase the tax base.
- Environmental Justice: The Proposed Alternative construction activities would cause disruptions to the entire community, including minority and low-income populations. Although relocations of commercial establishments and one residential property would occur, impacts on property owners would be mitigated through relocation assistance and are not considered to be disproportionately high or adverse. These relocations of commercial establishments would result in a loss of jobs in the Project area; however, the proposed improvements are anticipated to offset this loss by providing beneficial impacts on minority and low-income communities through increased job opportunities on roadway construction crews, improved mobility, and improved access to employment opportunities and community facilities in the surrounding area. Potential impacts on services that serve communities with environmental justice concerns are not expected to be adverse because those services, such as access to groceries and other goods available at the displaced convenience stores, would still be available at other locations in the surrounding community, such as the Dollar Tree or Hy-Vee 0.27 mile east of the Project. There would be improved accessibility and safety for bicycle and pedestrian facilities and an improved transportation system. Other reasonably foreseeable future projects identified are either within ROW or undeveloped parcels and would not adversely affect environmental justice populations. No substantial cumulative impacts on environmental justice populations are anticipated.
- Contaminated and Regulated Materials Sites: The Proposed Alternative is near four high risk sites. The Project would avoid disturbing the former manufactured gas plant and Kum & Go #251; however, there is a potential for exposure to contaminated soils or groundwater when removing and replacing pavement along Gordon Drive adjacent to these two properties. The Bacon Creek Country Store and Select Mart properties would be full acquisitions. Excavation near these sites has the potential to encounter contaminated soil and groundwater. Actual impacts on, or avoidance of, regulated materials would be determined during final design. As indicated in Section 5.4.2, Contaminated and Regulated Materials Sites, Iowa DOT has designated procedures for

addressing these sites and coordinates with Iowa DNR and EPA as appropriate to properly address contamination. Other reasonably foreseeable future projects identified are either within ROW or undeveloped parcels, and the sponsors of those projects would be independently responsible for addressing contaminated properties. No substantial cumulative impacts on contaminated and regulated materials sites are anticipated.

In summary, impacts of the Proposed Alternative, past projects, and reasonably foreseeable future projects are not considered cumulatively significant. This determination is largely tied to the nature of the Project (the replacement and enhancement of existing transportation and drainage assets in an already highly disturbed area) and the impacts associated with such a Project.

5.6 Resource Summary

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

Table 5-12 summarizes the Proposed Alternative’s impacts on resources discussed in the sections above. The actual impacts that the Proposed Alternative would have on environmental resources are anticipated to decrease from what is shown in Table 5-12 as the design process continues.

Table 5-12. Summary of Impacts

Resource	No-Build Alternative	Proposed Alternative
Vehicle Miles Traveled ¹	2,828,312	2,828,395
Vehicle Hours Traveled ²	63,792	63,714
Average Daily Traffic (Design Year 2050) ³	34,100	34,100
Land Use	The lane closures and possible bridge failure would inhibit current and planned land uses in the study area and beyond.	Construction of the Proposed Alternative would facilitate current and future land uses by accommodating local and regional transportation and recreation needs.
Community Cohesion	Cohesion would continue to be impaired via the substandard, lane-restricted viaduct, which limits community connectivity across the river and railroad barriers.	The Proposed Alternative would have an anticipated beneficial effect on community cohesion through the anticipated improvements to safety and mobility, which would enhance the quality of life for residents. The Project would also provide and enhance bicycle and pedestrian access by reconstructing sidewalks and mixed-use paths.

Resource	No-Build Alternative	Proposed Alternative
Churches and Schools	No immediate impact on churches and schools. Over time, further degradation of the viaduct could result in closures, detours, and an increase in out-of-direction travel for the community and bus systems.	The Proposed Alternative would avoid permanent impacts on churches and schools. However, there would be temporary construction-related impacts on these facilities due to lane closures and other construction activities. Access to these facilities would be maintained, although there may be temporary access restrictions during construction. Construction noise and emissions from equipment would not impact these resources.
Environmental Justice	The failing infrastructure and subsequent closure of Gordon Drive would increase congestion, and the reduced safety of the facility would be expected to negatively impact adjacent communities and commuters.	Short-term impacts from construction noise and dust, access to businesses and services, and transit routes would be minimal and would not be disproportionate and or adverse. The Project would provide beneficial impacts on minority and low-income populations. There would be improved accessibility and safety for bicycle and pedestrian facilities and an improved transportation system.
Economic	Failure to address existing viaduct deficiencies would adversely affect economics of the study area and Sioux City.	Acquisition of ROW would initially reduce the tax income for Sioux City, but it is anticipated that future development of the area surrounding Gordon Drive would increase the tax base and that economic development would occur in the surrounding community after completion of the Project.
Joint Development	Joint development of transportation ROW and local improvements would not occur.	The Project would enhance the overall functionality and connectivity of the infrastructure and would facilitate additional public greenspace and multi-use trails.
Parklands and Recreational Areas	Parkland and recreational areas would be unaffected.	Minor impacts would occur on the existing Floyd River Paddle Route and planned Floyd River Connector Trail during construction. New multi-use paths and sidewalks would be constructed and would improve access to park and recreational facilities.
Bicycle and Pedestrian Facilities	No changes to the current sidewalk and trail system would occur.	The Project would include mixed-use paths on the new bridges extending east and west, and south of Gordon Drive along Cunningham Drive and Leech Avenue; a path along Lewis Boulevard, connecting 3rd Avenue and Leech Avenue; and a path above the BCC between Gordon Drive and Correctionville Road from Lewis Boulevard to Rustin Street. Additionally, there would be various 5-foot-wide sidewalks along the Project and improvements to existing City-owned sidewalks.

Resource	No-Build Alternative	Proposed Alternative
ROW Acquisition (acres)	0	22.4
Relocations (number)	0	24
Construction and Emergency Routes	No immediate impacts on emergency routes would occur. Over time, further degradation of the viaduct could result in closures, detours, and an increase in emergency response times.	During construction, impacts on emergency services are expected to be minimal. After Project completion, traffic operations would improve over current conditions, and emergency services would have improved reaction time.
Transportation	The structurally compromised, lane-limited roadway would continue to limit the transportation infrastructure along a vital urban corridor.	The Project would improve access along Gordon Drive. Construction would result in local detours and impacts on transit stops.
Cultural Impacts	0	8 (2 archaeological; 6 structures)
Wetland Impacts (acres)	0	<0.10
Stream Channel Impacts (linear feet, acre)	0	<0.5
Floodplain (acres) ⁴	43.1	24.5
Threatened and Endangered Species Habitat (acres)	0	0
Noise Impacts (Number of Receptors)	0	0
Contaminated and Regulated Materials Sites (number)	0	≥4
Visual	Deterioration of the existing transportation infrastructure would continue.	Project-associated activities would negligibly alter the visual landscape of the study area, which is already subject to the visual impacts of transportation infrastructure.
Utilities (number of structures)	0	Water and sanitary sewer mains would be relocated or reconstructed. Gas mains and lines would be relocated if needed, and distribution lines near Bacon Creek would be relocated parallel to the existing lines. Communication lines would likely be consolidated into multi-duct conduits or utility corridors. Aerial utilities crossing or paralleling the corridor would be relocated.

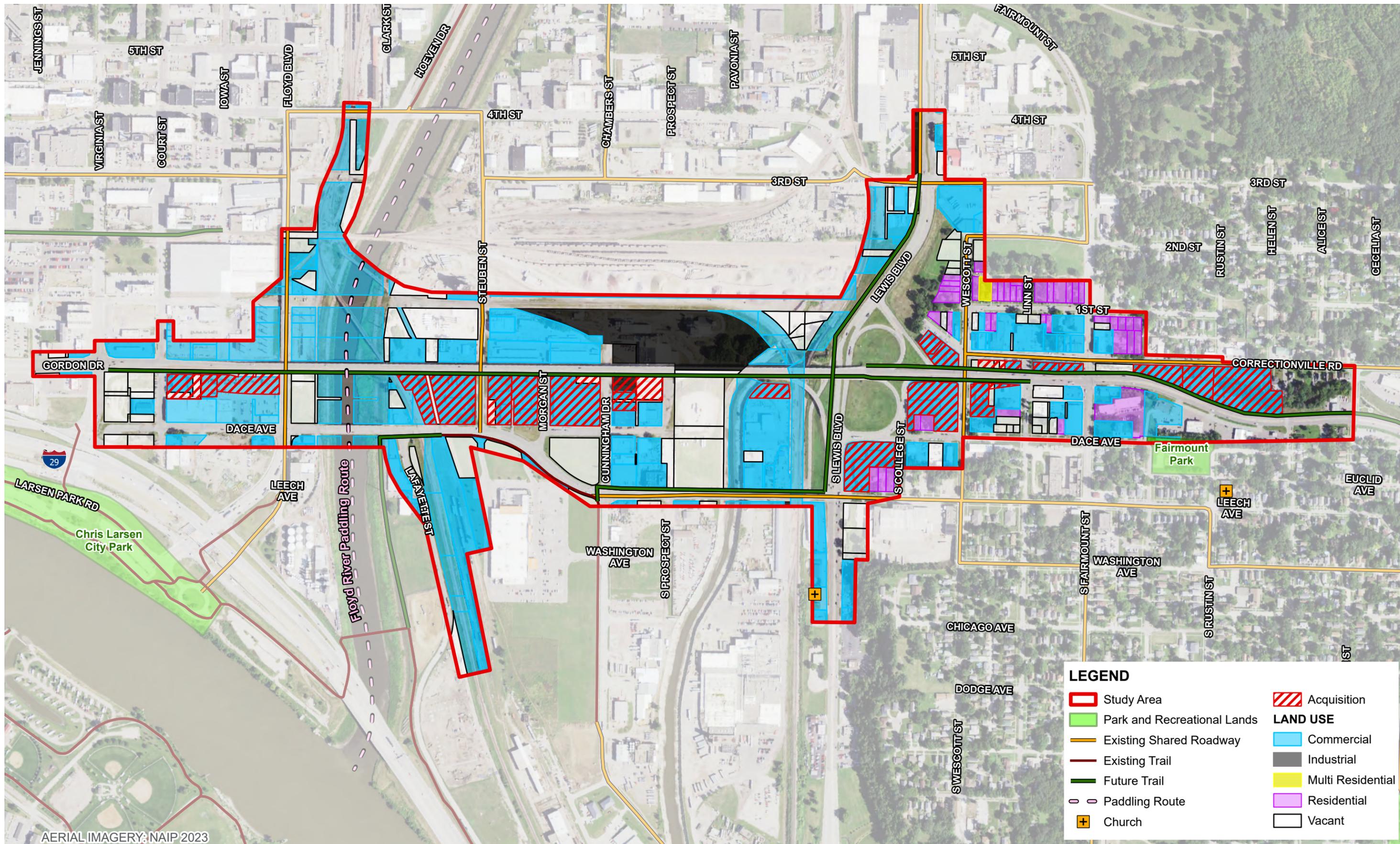
¹ Vehicle miles traveled: The total number of miles traveled by all vehicles on Gordon Drive.

² Vehicle hours traveled: The total number of hours spent traveling by all vehicles on Gordon Drive.

³ Average daily traffic: The projected average number of vehicles expected to travel on Gordon Drive daily in the year 2050. Additional detail is provided in Section 5.1.12.

⁴ Floodplain: The Bacon Creek 100-year floodplain would be reduced from approximately 43.1 acres to 24.5 acres (45 percent).

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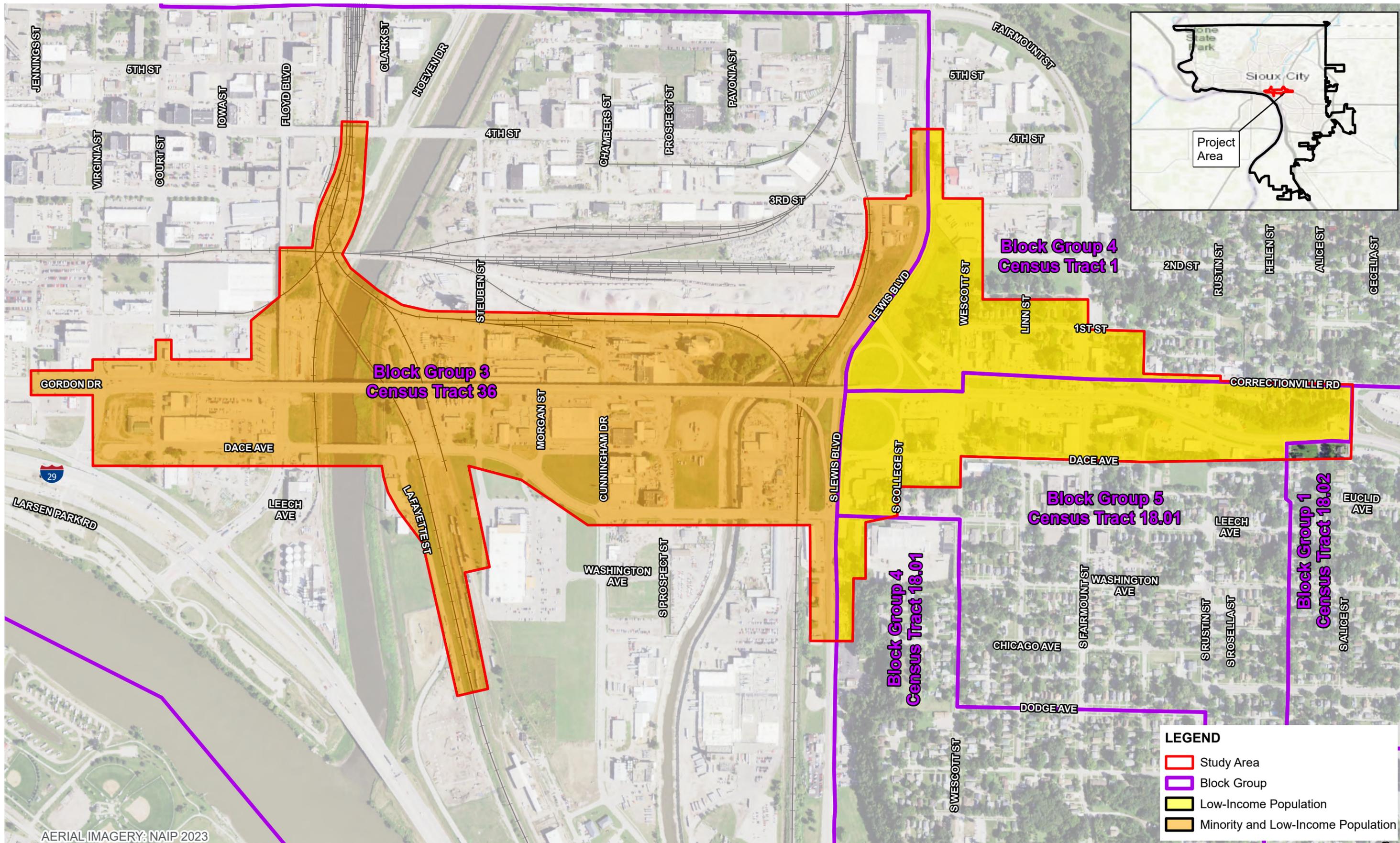
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LEGEND

Study Area	Acquisition
Park and Recreational Lands	LAND USE
Existing Shared Roadway	Commercial
Existing Trail	Industrial
Future Trail	Multi Residential
Paddling Route	Residential
Church	Vacant

SOCIOECONOMIC RESOURCES
 GORDON DRIVE VIADUCT / BACON CREEK CONDUIT
 FIGURE 5-1A



AERIAL IMAGERY: NAIP 2023

LEGEND

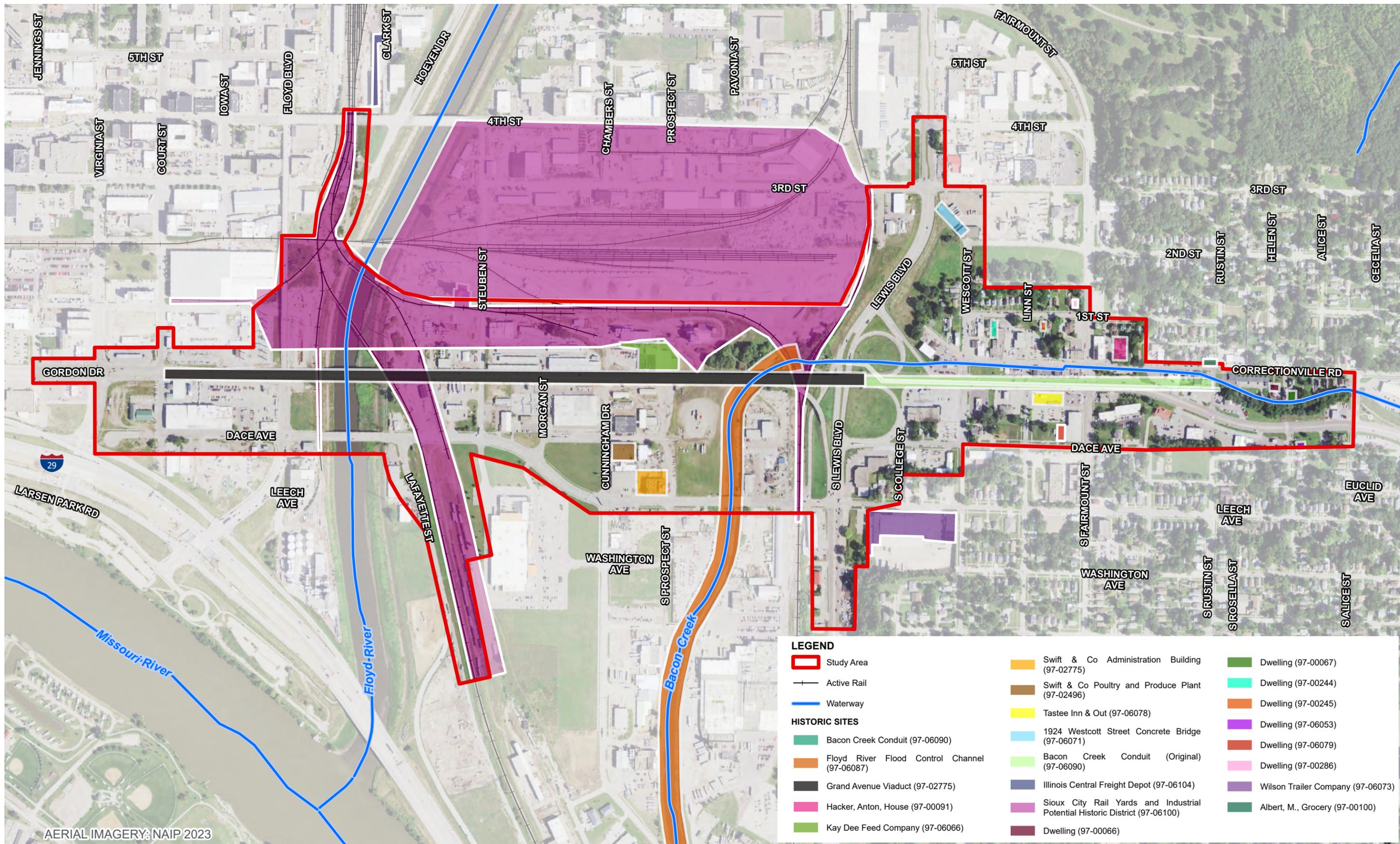
- Study Area
- Block Group
- Low-Income Population
- Minority and Low-Income Population



COMMUNITIES WITH ENVIRONMENTAL JUSTICE CONCERNS

GORDON DRIVE VIADUCT / BACON CREEK CONDUIT

FIGURE 5-1B

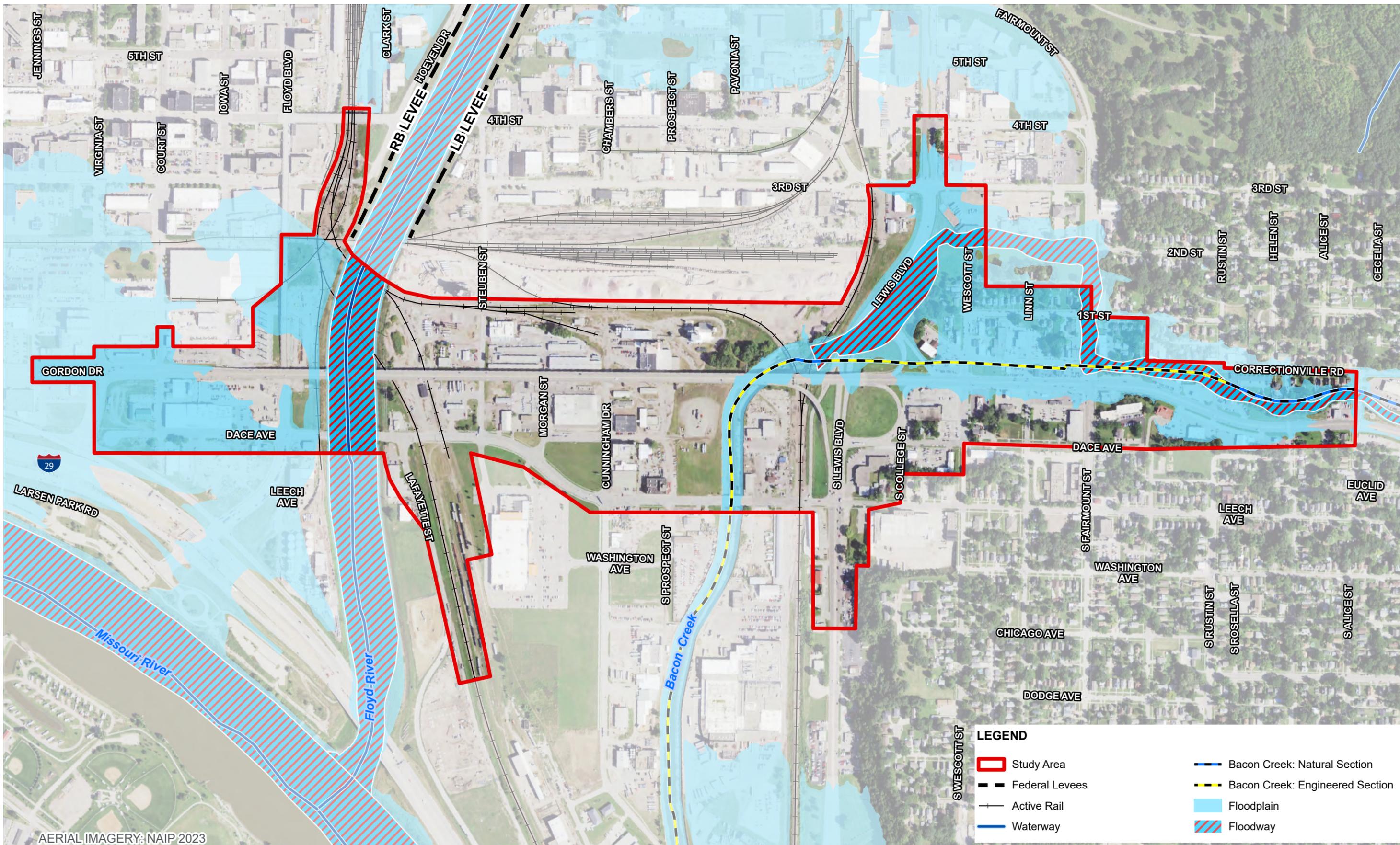


LEGEND		
	Study Area	
	Active Rail	
	Waterway	
HISTORIC SITES		
	Bacon Creek Conduit (97-06090)	
	Floyd River Flood Control Channel (97-06087)	
	Grand Avenue Viaduct (97-02775)	
	Hacker, Anton, House (97-00091)	
	Kay Dee Feed Company (97-06066)	
	Swift & Co Administration Building (97-02775)	
	Swift & Co Poultry and Produce Plant (97-02496)	
	Tastee Inn & Out (97-06078)	
	1924 Westcott Street Concrete Bridge (97-06071)	
	Bacon Creek Conduit (Original) (97-06090)	
	Illinois Central Freight Depot (97-06104)	
	Sioux City Rail Yards and Industrial Potential Historic District (97-06100)	
	Albert, M., Grocery (97-00100)	
	Dwelling (97-00067)	
	Dwelling (97-00244)	
	Dwelling (97-00245)	
	Dwelling (97-06053)	
	Dwelling (97-06079)	
	Dwelling (97-00286)	
	Wilson Trailer Company (97-06073)	
	Dwelling (97-00066)	

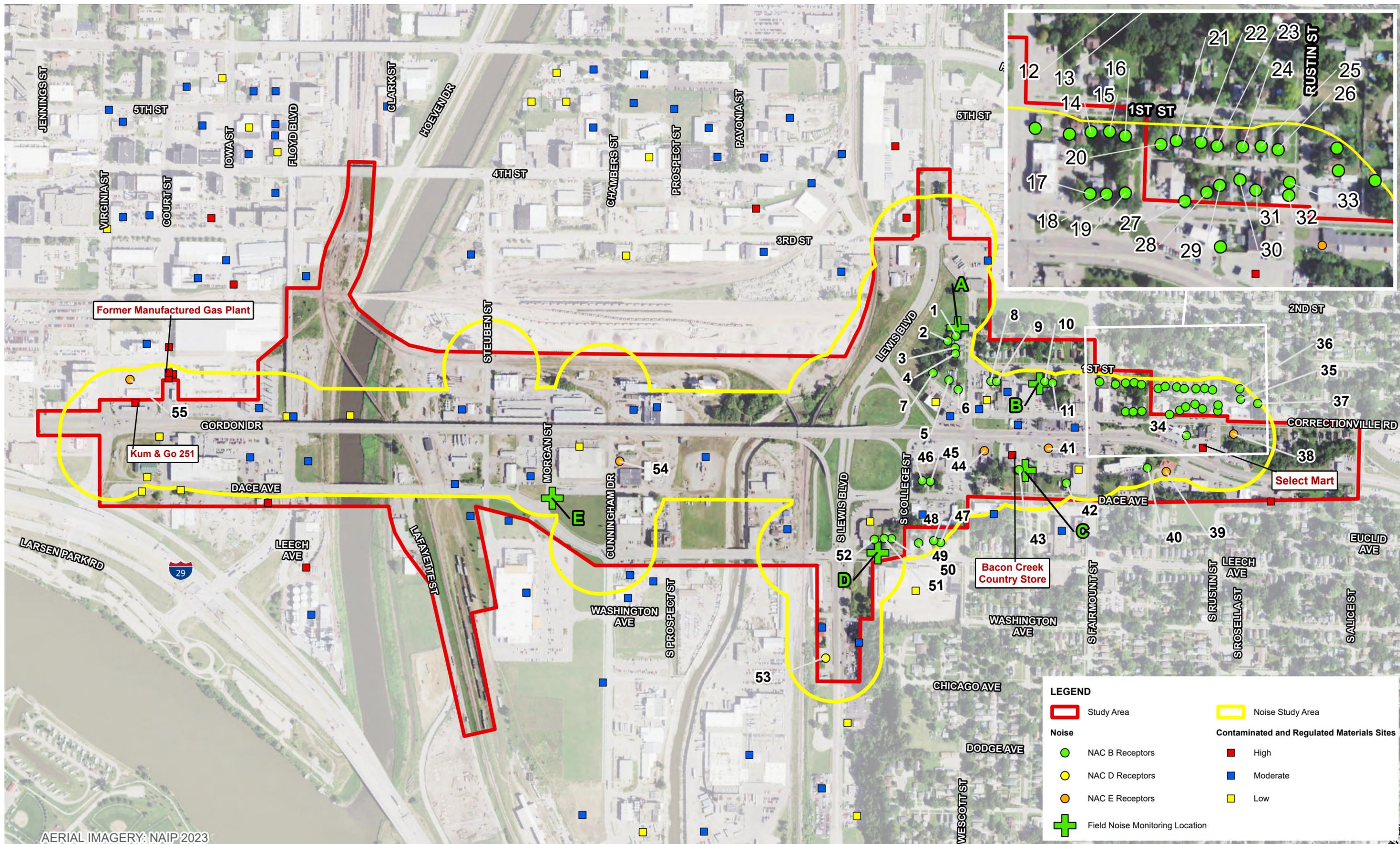
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CULTURAL RESOURCES
 GORDON DRIVE VIADUCT / BACON CREEK CONDUIT
 FIGURE 5-2



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Chapter 6 Disposition

This EA concludes that the Project is necessary for safe and efficient travel within the Project corridor and that the proposed Project meets the purpose and need. The Project would have no significant adverse social, economic, or environmental impacts that would warrant an Environmental Impact Statement. Alternative selection would occur following completion of the public review period and public hearing, making certain that public comments are considered in the final decision.

This EA is being distributed to the agencies, tribal nations, and organizations listed in this chapter. Individuals receiving the document are not listed for privacy reasons.

6.1 Federal Agencies

The following federal agencies are receiving this EA:

- Advisory Council on Historic Preservation
- Federal Aviation Administration
- Federal Emergency Management Agency
- Federal Railroad Administration
- Federal Transit Administration, Region VII
- National Park Service
- Surface Transportation Board
- U.S. Army Corps of Engineers, Omaha District
- U.S. Army Corps of Engineers, Rock Island District
- U.S. Department of Housing and Urban Development, Field Office Director
- U.S. Department of Housing and Urban Development, Regional Office
- U.S. Department of the Interior, Office of Environmental Policy and Compliance
- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service

6.2 State Agencies

The following state agencies are receiving this EA:

- Iowa Arts & Culture, State Historic Preservation Office
- Iowa Department of Natural Resources

6.3 Local and Regional Units of Government

The following local and regional units of government are receiving this EA:

- City of Sioux City Community, Planning, and Zoning
- City of Sioux City, Mayor
- City of Sioux City, Parks and Recreation Director
- City of Sioux City, Public Works Director
- Siouxland Chamber of Commerce
- Woodbury County

- Woodbury County Conservation Board
- Woodbury Soil and Water Conservation District

6.4 Tribal Nations

The following tribal nations are receiving this EA:

- Flandreau Santee Sioux Tribe
- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma
- Lower Sioux Indian Community
- Omaha Tribe of Nebraska
- Otoe-Missouria Tribe
- Pawnee Nation of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Ponca Tribe of Nebraska
- Prairie Band Potawatomi Nation
- Prairie Island Indian Community
- Sac and Fox Nation of Oklahoma
- Sac and Fox Tribe of the Mississippi in Iowa (Meskwaki Nation)
- Santee Sioux Nation
- Sisseton-Wahpeton Oyate
- Spirit Lake Tribe
- Three Affiliated Tribes – Mandan, Hidatsa, and Arikara
- Upper Sioux Community
- Winnebago Tribe of Nebraska
- Yankton Sioux Tribe

6.5 Other

The following other entities are receiving this EA:

- Burlington Northern Santa Fe Railroad
- Canadian National Railway
- Dakota and Iowa Railroad (parent company L.G. Everist)
- Sioux City Public Library
- Union Pacific Railroad

6.6 Locations Where This Document Is Available for Public Review

This EA is available for review at the following locations:

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

- Iowa Department of Transportation, District 3 Office
6409 Gordon Drive
Sioux City, IA 51106
- Iowa Department of Transportation Website
<https://iowadot.gov/ole/NEPA-Compliance/NEPA-documents>
- Sioux City, City Hall
405 6th Street
Sioux City, IA 51102
- Sioux City Public Library
529 Pierce Street
Sioux City, IA 51101

6.7 Potential Permits and Approvals Needed for the Proposed Project

- Clean Water Act Section 401 Water Quality Certification from Iowa DNR
- Clean Water Act Section 404 Permit from USACE Rock Island District
- Floodplain Development Permit from City of Sioux City
- Floodplain Development Permit from Iowa DNR
- National Pollutant Discharge Elimination System General Permit No. 2 for Storm Water Discharge Associated with Construction Activities from Iowa DNR
- Section 408 Approval from USACE Omaha District

In accordance with NEPA, the appropriate environmental documentation for this proposed action will be prepared after the public hearing and all public review comments have been considered. The environmental document prepared will either be a Finding of No Significant Impact (FONSI) or an Environmental Impact Statement (EIS) and will serve as a basis for federal aid corridor location approval.

6.8 Status of Transportation Improvement Program

This Project is a part of a larger roadway network, as outlined in the Siouxland Interstate Metropolitan Planning Council Metropolitan Planning Organization's (SIMPCO MPO) *2045 Long Range Transportation Plan (2023)*. The estimated cost for the Project in the LRTP is approximately \$26.4 million, and the Project is included in the Iowa State Transportation Improvement Program.

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Chapter 7 Comments and Coordination

7.1 Agency and Tribal Coordination

Early coordination letters were sent to resource agencies in both 2019 and 2023. The early coordination efforts performed in 2019 focused solely on a Gordon Drive viaduct project, which was later expanded to include the BCC and led to reengagement in 2023. Tribal nation coordination letters were sent in 2019 and 2023 to tribes with an expressed interest in Woodbury County. Agency and tribal coordination and comments are provided in Appendix C. Letter and response details are outlined in the following sections.

7.1.1 Agency Coordination in 2019

Early agency coordination letters and a figure of the project location were sent to resource agencies on April 18, 2019. Table 7-3 lists the agencies contacted for coordination on the Gordon Drive viaduct project. The agencies that responded are indicated in the table with the date the response was received. Those agencies bolded were also invited to be a Cooperating and Participating Agency, with responses included in Appendix C.

Table 7-1. 2019 Agency Coordination

Agency Type	Agency	Date of Response
Federal	Federal Aviation Administration	—
Federal	Federal Emergency Management Agency	05-21-2019
Federal	Federal Railroad Administration	—
Federal	Federal Transit Administration, Region VII	—
Federal	National Park Service	—
Federal	Surface Transportation Board	06-07-2019
Federal	U.S. Army Corps of Engineers, Rock Island – Regulatory Branch	—
Federal	U.S. Army Corps of Engineers, Omaha District Planning Division	—
Federal	U.S. Army Corps of Engineers, Omaha District Regulatory Division	—
Federal	U.S. Coast Guard	—
Federal	U.S. Department of Agriculture	—
Federal	U.S. Department of Housing and Urban Development, Supervisory Project Manager	—
Federal	U.S. Department of Housing and Urban Development, Regional Office	—
Federal	U.S. Department of the Interior, Office of Environmental Policy and Compliance, Regional Office	05-22-2019
Federal	U.S. Environmental Protection Agency	06-13-2019
Federal	U.S. Fish and Wildlife Service, Midwest Region	05-22-2019
State	Iowa Department of Natural Resources, Environmental Services Division	05-30-2019

Agency Type	Agency	Date of Response
State	Iowa Department of Natural Resources, Conservation and Recreation Division	05-15-2019
State	Iowa Department of Natural Resources, Section 6(f) Funds Coordinator	05-15-2019
State	Iowa Department of Natural Resources, Wildlife Bureau, Missouri River	—
State	Iowa Department of Natural Resources, Wildlife Bureau, NW District Supervisor	—
State	Iowa Department of Transportation	—
State	Iowa State Historic Preservation Office	08-09-2019
County	Woodbury County, Engineer	06-12-2019
County	Woodbury County Conservation Board, Director	—
County	Woodbury County Conservation Board, Deputy Director	—
County	Woodbury Soil and Water Conservation District	—
Local	City of Sioux City Community Development, Planning and Zoning	—
Local	City of Sioux City, Mayor	—
Local	City of Sioux City, Public Works Director	—
Local	City of Sioux City, Parks and Recreation Director	—
Local	Siouxland Chamber of Commerce	05-30-2019

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

- The Federal Emergency Management Agency suggested that a floodplain development permit be obtained from Sioux City for the project areas in the Special Flood Hazard Areas on the Flood Insurance Rate Map.
- The Surface Transportation Board declined to be a cooperating agency in the project because the project does not require a license from the Board.
- EPA recommended to avoid and minimize impacts to wetlands and streams as much as possible. It also advised that, if mitigation is needed, a mitigation bank is preferred and that the project should follow the USACE stream mitigation guidelines for Iowa.
- The U.S. Fish and Wildlife Service responded with a link to the Region 3 Technical Assistance website for habitat descriptions and species information for the affected area and suggested that USACE be contacted for wetland determinations.
- The Iowa DNR Environmental Services Division advised that waters of the U.S., including wetlands, should not be disturbed if a less environmentally damaging option is available and requested that best management practices be used to control erosion and protect water quality near the project. Iowa DNR also advised that any proposed placement of dredged or fill material into waters of the U.S. requires USACE authorization and asked that an application be completed with USACE when detailed project plans are complete. The application must also be sent to Iowa DNR

for the Flood Plain and Sovereign Lands permitting sections, per Iowa DNR’s response.

- Iowa SHPO stated that it has no immediate concerns for the project, but it anticipates a more detailed review as the project plan materializes based on the size of the project area and the archaeological and historic property potential in the area.
- The Woodbury County engineer responded but provided no commentary on the project because it does not directly interface with any county extension routes.
- The Siouxland Chamber of Commerce asked that the final project plan address all modes of transportation (pedestrian, vehicular, and railroad) and suggested relocating the railroads to allow for a shorter-length bridge.
- The Iowa DNR, Conservation and Recreation Division stated that no recreational projects that will be impacted.

7.1.2 Tribal Coordination in 2019

Tribal coordination letters and a figure of the project location were sent to all tribes with an expressed interest in Woodbury County on July 29, 2019. Table 7-2 lists the tribal nations contacted for coordination on the Gordon Drive viaduct project. The tribes that responded are indicated in the table with the date the response was received. Recognizing their sovereignty, it is understood and respected that these tribal nations have the right to provide response at any stage of the project.

Table 7-2. 2019 Tribal Coordination

Tribal Nation	Date of Response
Flandreau Santee Sioux Tribe	—
Iowa Tribe of Kansas and Nebraska	—
Iowa Tribe of Oklahoma	—
Omaha Tribe of Nebraska	—
Otoe-Missouria Tribe	—
Pawnee Nation of Oklahoma	08-27-2019
Peoria Tribe of Indians of Oklahoma	—
Ponca Tribe of Nebraska	—
Prairie Band Potawatomi Nation	—
Prairie Island Indian Community	—
Sac and Fox Nation of Oklahoma	—
Sac and Fox Tribe of the Mississippi in Iowa (Meskwaki Nation)	—
Santee Sioux Nation	—
Sisseton-Wahpeton Oyate	—
Spirit Lake Tribe	—
Three Affiliated Tribes – Mandan, Hidatsa, and Arikara	—

Tribal Nation	Date of Response
Upper Sioux Community	—
Winnebago Tribe of Nebraska	—
Yankton Sioux Tribe	—

The Pawnee Nation of Oklahoma Tribal Historic Preservation Officer responded that, based on the information provided, the proposed project would not adversely affect the cultural landscape of the Pawnee Nation of Oklahoma, and the proposed project may proceed. However, if additional undiscovered properties are encountered, they must be reported to the Tribe immediately.

7.1.3 Agency Coordination in 2023

Agency coordination letters were sent to resource agencies on October 10, 2023. Table 7-3 lists the agencies contacted for coordination on the Project. The agencies that responded are indicated in the table with the date the response was received.

Table 7-3. 2023 Agency Coordination

Agency Type	Agency	Date of Response
Federal	Advisory Council on Historic Preservation	10-10-2023
Federal	Federal Aviation Administration	—
Federal	Federal Emergency Management Agency	—
Federal	Federal Railroad Administration	—
Federal	Federal Transit Administration, Region VII	—
Federal	National Park Service	—
Federal	Surface Transportation Board	—
Federal	U.S. Army Corps of Engineers, Chief of Civil Works, Omaha District Planning Division	—
Federal	U.S. Army Corps of Engineers, Omaha District Regulatory Division	—
Federal	U.S. Army Corps of Engineers, Rock Island, Regulatory Branch	—
Federal	U.S. Coast Guard	—
Federal	U.S. Department of Agriculture	10-13-2023
Federal	U.S. Department of Housing and Urban Development, Field Office Director	10-11-2023
Federal	U.S. Department of Housing and Urban Development, Regional Office	—
Federal	U.S. Department of Interior, Office of Environmental Policy and Compliance	—
Federal	U.S. Environmental Protection Agency	—
Federal	U.S. Fish and Wildlife Service, Midwest Region	—
State	Iowa Department of Natural Resources, Environmental Services Division	10-10-2023

Agency Type	Agency	Date of Response
State	Iowa Department of Natural Resources, Conservation and Recreation Division	—
State	Iowa Department of Natural Resources, Executive Officer, Budget and Finance	10-16-2023
State	Iowa Department of Natural Resources, Wildlife Bureau, Missouri River	—
State	Iowa Department of Natural Resources, Wildlife Bureau	—
State	Iowa Department of Transportation	—
State	Iowa State Historic Preservation Office	—
County	Woodbury County	—
County	Woodbury County Conservation Board, Director	—
County	Woodbury County Conservation Board, Deputy Director	—
County	Woodbury Soil and Water Conservation District	10-10-2023
Local	City of Sioux City Community Development, Planning and Zoning	—
Local	City of Sioux City, Mayor	—
Local	City of Sioux City, Public Works Director	—
Local	City of Sioux City, Parks and Recreation Director	—
Local	Siouxland Chamber of Commerce	—

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

- The Advisory Council on Historic Preservation asked whether the Project would have an adverse effect relating to Section 106 of the National Historic Preservation Act.
- The U.S. Department of Agriculture responded that the Project does not contain prime farmland and is exempt from Farmland Protection Policy Act requirements due to its location within the Sioux City municipal boundary.
- The Field Office Director for the U.S. Department of Housing and Urban Development responded that the Project would not affect any Housing and Urban Development assets.
- The Iowa DNR Environmental Services Division had no comment on the Project.
- The Executive Officer, Budget and Finance, for Iowa DNR responded that the information was received but did not comment on the Project.
- The Woodbury Soil and Water Conservation District responded that there is a new district conservationist, but did not comment on the Project.

USACE-Omaha District was invited to become a Cooperating Agency and Participating Agency on March 15, 2024, by the Iowa DOT. The invitation was accepted on March 26, 2024.

7.1.4 Tribal Coordination in 2023

Tribal coordination letters were sent November 7, 2023, along with an archaeological survey report. The letter included a map of the Project location. Table 7-4 outlines the responses. Recognizing their sovereignty, it is understood and respected that these tribal nations have the right to provide response at any stage of the Project.

Table 7-4. 2023 Tribal Coordination

Tribal Nation	Date of Response
Flandreau Santee Sioux Tribe	11-24-2023
Iowa Tribe of Kansas and Nebraska	—
Iowa Tribe of Oklahoma	—
Omaha Tribe of Nebraska	—
Otoe-Missouria Tribe	—
Pawnee Nation of Oklahoma	12-05-2023
Peoria Tribe of Indians of Oklahoma	—
Ponca Tribe of Nebraska	—
Prairie Band Potawatomi Nation	—
Prairie Island Indian Community	—
Sac and Fox Nation of Oklahoma	—
Sac and Fox Tribe of the Mississippi in Iowa (Meskwaki Nation)	—
Santee Sioux Nation	—
Sisseton-Wahpeton Oyate	—
Spirit Lake Tribe	—
Three Affiliated Tribes – Mandan, Hidatsa, and Arikara	—
Upper Sioux Community	—
Winnebago Tribe of Nebraska	—
Yankton Sioux Tribe	—

The responses received from tribal nations are summarized as follows:

- The Flandreau Santee Sioux Tribal Historic Preservation Assistant responded that they have no issues with the proposed Project in this area. If any cultural material and/or human remains are disturbed, please stop and contact the Tribe as soon as possible.
- The Pawnee Nation of Oklahoma Tribal Historic Preservation Officer responded that, based on the information provided, the proposed Project would not adversely affect the cultural landscape of the Pawnee Nation of Oklahoma, and the proposed Project may proceed. However, if additional undiscovered properties are encountered, they must be reported to the Tribe immediately.

7.2 NEPA/404 Merge Coordination

The NEPA/404 Merge process applies to projects where a Clean Water Act Section 404 Individual Permit would be required. FHWA and Iowa DOT developed a Statewide Implementation Agreement through coordination with USACE, EPA, the U.S. Fish and Wildlife Service, and Iowa DNR to facilitate early coordination between these agencies regarding the future permitting process being accounted for during NEPA decision-making. This Project proposes to eliminate two of the existing four piers in the Floyd River Section 408 channel improvement area, including one within the Floyd River waterway itself, and eliminate one pier within the lined Bacon Creek waterway. No new piers would be constructed within the Floyd River or Bacon Creek waterways. Minor shaping of the Bacon Creek waterway would be required, but the anticipated amount of disturbance would not rise to the level of an Individual Permit. Consequently, a NEPA/404 Merge process was not needed for this Project.

USACE, as a cooperating agency on this Project, provided input in consideration of channel and wetland impacts as they pertain to Section 404 permit requirements, as well as waterway impacts subject to Section 408 authorization. USACE input was incorporated in this EA, allowing them to adopt this NEPA document, as prepared by FHWA as the lead federal agency.

7.3 Public Involvement

Three public information meetings were held to inform the public about this Project and solicit their input. Each meeting discussed the proposed improvements to the Gordon Drive viaduct from South Fairmont Street to Virginia Street in Sioux City. While the first meeting focused on the viaduct changes, the second and third meetings also included discussions about the Bacon Creek conduit, which was subsequently added to the Project.

- The first meeting was held May 21, 2019, at the Sioux City Convention Center from 5 p.m. to 7 p.m. Approximately 70 people attended the meeting, with most being business owners in the project area. Comments received during the public meeting centered around traffic flow on Gordon Drive and intersecting roadways. Many attendees were concerned about being able to access downtown Sioux City easily during construction. Several attendees were business owners in the project area and wondered how they would be affected by the new viaduct, most specifically whether customers would be able to access their businesses during the project and after completion.
- The second meeting was held virtually in April 2021. Business owners were concerned about how both the viaduct and conduit changes would affect their businesses and if they would be reimbursed for any property loss or damage incurred because of the project. Attendees also asked about the timeframe for any follow-up meetings and the beginning of construction and wondered whether the viaduct and conduit changes could be done at the same time. One attendee was worried about how the project would affect his house, while others questioned whether there would be sidewalks on the new viaduct.
- The third meeting was held November 15, 2022, at the Sioux City Convention Center from 5 p.m. to 7 p.m. Approximately 60 people attended the meeting in person and another 78 participated virtually. Attendees questioned the need for the Bacon Creek conduit component of the Project and were worried about how both the new Gordon

Drive viaduct and the Bacon Creek conduit changes would affect their homes and businesses. Attendees also asked about sidewalk width on the new viaduct and how the Project would impact the existing trail network.

Chapter 8 References

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- Veenstra & Kimm. 2020. *Hydraulic Report: Sioux City, Iowa, Bacon Creek Culvert Analysis*. March.
- Woodbury County. 2005. *Planning for 2025: A General Development Plan for Woodbury County*. Adopted November 22. https://www.woodburycountyiowa.gov/files/community_economic_development/planning_for_2025_a_general_development_plan_for_woodbury_county_29588.pdf.

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Streamlined Resource Summary

SOCIOECONOMIC IMPACTS SECTION:

Land Use	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/21/2023
Community Cohesion	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/21/2023
Churches and Schools	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/21/2023
Environmental Justice	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Economic	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Joint Development	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Consultant, 12/21/2023
Parklands and Recreational Areas	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/21/2023
Bicycle and Pedestrian Facilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/21/2023
Right-of-Way	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Relocation Potential	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023

SOCIOECONOMIC IMPACTS SECTION Continued:

Construction and Emergency Routes	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/21/2023
Transportation	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/21/2023

CULTURAL IMPACTS SECTION:

Historic Sites or Districts	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 12/21/2023
Archaeological Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	Subconsultant, 12/21/2023
Cemeteries	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023

NATURAL ENVIRONMENT IMPACTS SECTION:

Wetlands	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Surface Waters and Water Quality	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Wild and Scenic Rivers	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Floodplains	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Wildlife and Habitat	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Threatened and Endangered Species	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Woodlands	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Farmlands	
Evaluation:	Resource is not in the study area
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023

PHYSICAL IMPACTS SECTION:

Noise	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Report
Completed by and Date:	IA DOT NEPA Manager, 12/21/2023
Air Quality	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
MSATs	
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, 12/21/2023
Energy	
Evaluation:	Resource is in the study area but will not be impacted
Method of Evaluation:	Other
Completed by and Date:	Consultant, 12/21/2023
Contaminated and Regulated Materials Sites	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023
Visual	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Field Review/Field Study
Completed by and Date:	Consultant, 12/21/2023
Utilities	
Evaluation:	Resource is discussed in Section 5 of the Resource Analysis
Method of Evaluation:	Database
Completed by and Date:	Consultant, 12/21/2023

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Section 106 Memorandum of Agreement

MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE IOWA STATE HISTORIC PRESERVATION OFFICER, AND THE IOWA
DEPARTMENT OF TRANSPORTATION
REGARDING THE IMPROVEMENT OF IA 12 AND THE REPLACEMENT OF THE
GORDON DRIVE VIADUCT (FHWA #052830), WOODBURY COUNTY, IOWA;
IOWA SHPO REVIEW AND COMPLIANCE NO. 190897006;
IOWA DOT PROJECT NO. NHS-012-1(37)--19-97

WHEREAS, in accordance with Section 106 of the National Historic Preservation Act of 1966, 54 U.S.C. § 306108 (the Act), and its implementing regulations (36 CFR§ 800) the Federal Highway Administration (hereafter “FHWA”) proposes to assist with improvement of the IA 12 transportation corridor between Virginia Street and Rustin Street, which includes the replacement of the Gordon Drive Viaduct (FHWA #052830) in Sioux City, Woodbury County, (hereafter “Undertaking”); and

WHEREAS, the FHWA has defined the undertaking’s area of potential effects (hereafter “APE”) in Appendix A; and

WHEREAS, the FHWA has received a funding request for the undertaking from the Iowa Department of Transportation (hereafter “Iowa DOT”), and the Iowa DOT has chosen to enter into this Memorandum of Agreement (hereafter “MOA”) to fulfill its project obligations; and

WHEREAS, the FHWA has determined that this undertaking will have an adverse effect on the historic bridge FHWA #052830 (97-02775) and archaeological sites 13WD235 and 13WD244 which have been determined eligible for listing on the National Register of Historic Places, and have consulted with the Iowa State Historic Preservation Officer (SHPO) pursuant to 36 CFR § 800, the regulations implementing Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108); and

WHEREAS, in accordance with 36 CFR§ 800.2(c) the FHWA has identified and consulted with federally recognized tribes that may attach cultural or religious significance on Historic Properties (hereafter “Tribes”) and the list of Tribes is set forth in Appendix B, and has invited the Tribes to sign this MOA as concurring parties; and

WHEREAS, the FHWA has consulted with the Iowa DOT and the University of Iowa Office of the State Archaeologist (OSA) Bioarchaeology Program, regarding the effects of the undertaking on historic properties and have been invited to sign this MOA as concurring parties; and

WHEREAS, the FHWA has consulted with the Sioux City Historic Preservation Commission regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as concurring parties; and

WHEREAS, this undertaking has continued to be developed with appropriate public involvement pursuant to 36 CFR § 800.2(d) and 800.6(a), having been coordinated with the scoping, public review and comment, and public hearings conducted to also comply with National Environmental Policy Act and its implementing regulations; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the FHWA has notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified

documentation, and the ACHP has chosen *not to* participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

NOW, THEREFORE, the FHWA, the SHPO, the City, the Iowa DOT, and the OSA agree that the undertaking shall be implemented in accordance with the following stipulations in order to take into account the effects of the undertaking on historic properties.

STIPULATIONS

The FHWA and Iowa DOT shall ensure that the following measures are carried out:

I. MITIGATION OF ADVERSE EFFECTS

- a. The Iowa DOT shall fund an architectural survey of the Sioux City Rail Yards and Industrial Potential Historic District (97-06100), or subsequent districts that may be identified, which will delineate the full boundaries of the district or districts and identify contributing and non-contributing properties. Approximate boundaries consist of 18th Street to the north, Lewis Blvd and Fairmount St to the east, Dace Ave/Leach Ave to the south, and Floyd Blvd to the west, and adjoining areas as needed.
- b. The Iowa DOT shall ensure that all historic preservation work pursuant to this agreement is carried out by or under the direct supervision of a Secretary of the Interior qualified historian (48 FR 44738-9).
- c. The Iowa DOT shall implement the planned phase III data recovery in Appendix C, prior to and in coordination with construction activities.
- d. The Iowa DOT shall ensure that all historic preservation work pursuant to this agreement is carried out by or under the direct supervision of an archeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archeologist (48 FR 44738-9).
- e. The SHPO will be provided an opportunity to make a site visit to review the data recovery field work for thoroughness and compliance with the planned phase III data recovery, so that its completion, the letting of the construction project may be allowed to proceed and will not be delayed while the laboratory analysis and writing of the report are being finished.
- f. Tribes choosing to act as consulting parties to this agreement will be provided an opportunity to make a site visit to review the data recovery field work for thoroughness and compliance with the planned phase III data recovery.
- g. Archaeological investigations and data recovery activities may be terminated at sites 13WD235 and 13WD244 if the FHWA, SHPO, and Iowa DOT agree that significant information is not being recovered.

- h. The FHWA and Iowa DOT shall ensure that all final archeological reports resulting from actions pursuant to this agreement are responsive to contemporary professional standards and to the Department of the Interior's Format Standards for Final Reports of Data Recovery Program (42 FR 5377-79). Precise locational data may be provided only in a separate appendix if it appears that release of such data could jeopardize archeological deposits. The FHWA and Iowa DOT shall also ensure that the final written report of the testing and data recovery shall be distributed to the signatories and consulting parties.
- i. The FHWA and Iowa DOT shall ensure that all materials and records resulting from the testing and data recovery conducted at archeological sites 13WD235 and 13WD244 are curated in accordance with 36 CFR Part 79 at a facility within the State of Iowa.
- j. If the FHWA, SHPO, and Iowa DOT can agree that sufficient data has been collected, the FHWA and Iowa DOT shall ensure the development of a for public media (i.e. blogpost, booklet, video) that may be printed and/or hosted on the Iowa DOT website or other publicly accessible location.

II. AVOIDANCE OF ADVERSE EFFECTS

a. VIBRATION: Monitoring

- i. FHWA and Iowa DOT shall ensure a pre-construction survey of the two (2) individual historic properties identified in Appendix D is completed to document their present condition. The preconstruction survey will also establish a peak particle velocity (PPV) threshold for vibration.
- ii. FHWA and Iowa DOT shall ensure sensors (crack and/or seismic) are installed and tested daily. If eighty (80) percent of the PPV threshold is reached sensors will alert the contractor and in turn the construction engineer.
- iii. If the PPV is reached, a meeting with the contractor and the construction engineer will identify alternative demolition/construction methods and/or equipment to be used to minimize project vibration.
- iv. If damage to these properties occurs during construction or demolition, all activities will cease until approval from the construction engineer occurs. The SHPO will be immediately notified by the Iowa DOT if this occurs.
- v. FHWA and Iowa DOT shall ensure a post-construction survey is performed and distributed to the SHPO sixty (60) days after construction completion.
- vi. Items under Stipulation II.a will be captured in a Special Provision of the construction documents.

III. DURATION

Draft Memorandum of Agreement
R&C# 20190897006
FHWA #052830, 13WD235, and 13WD244
Woodbury County, Iowa

This MOA will expire if its terms are not carried out within five (5) years from the date of its execution. Prior to such time, the FHWA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VII below.

IV. POST-REVIEW DISCOVERIES

If properties are discovered that may be historically significant or unanticipated effects on historic properties found, the FHWA shall implement the discovery plan of this stipulation.

a. DISCOVERY PLAN: Archaeology

If construction work should uncover previously undetected archaeological materials, the Iowa DOT will cease construction activities involving subsurface disturbances in the area of the resource and notify the stakeholders of the discovery and proceed with the following stipulation. If the discovery includes human remains, Stipulation IV.B will be followed.

- i. The SHPO, or an archaeologist retained by the Iowa DOT that meets or exceeds the Secretary of the Interior's Standards for archeology, will immediately inspect the work site and determine the extent of the affected archaeological resource. Construction work may then continue in the area outside the archaeological resource as it is defined by the DOT's retained archaeologist in consultation with the stakeholders.
- ii. Within fourteen (14) days of the original notification of discovery, the Iowa DOT, in consultation with the stakeholders, will determine the National Register eligibility of the resource. The Iowa DOT may extend this 14- day calendar period one time by an additional seven (7) days by providing written notice to the stakeholders prior to the expiration date of said 14-day calendar period.
- iii. If the resource is determined eligible for the National Register, the Iowa DOT shall submit a plan for its avoidance, protection, recovery of information, or destruction without data recovery to the stakeholders for review and comment. The Iowa DOT will notify all consulting parties of the unanticipated discovery and provide the proposed treatment plan for their consideration. The SHPO and consulting parties will have seven (7) days to provide comments on the proposed treatment plan to the FHWA and Iowa DOT upon receipt of the information.
- iv. Work in the affected area shall resume upon either:
 1. the development and implementation of an appropriate data recovery plan or other recommended mitigation procedures; or
 2. agreement by the SHPO that the newly located archaeological materials are not eligible for inclusion on the National Register.

b. DISCOVERY PLAN: *Human Remains*

The Iowa Code protects all human burials in the state of Iowa. Ancient remains are protected under Chapter 263B, 523I.316(6), and 716.5 of the Iowa Code and the provisions of the Native American Graves Protection and Repatriation Act (25 U.S.C. 3001 through 3005).

In the event that human remains or burials are encountered during additional archaeological investigations or construction activities, the Iowa DOT shall proceed with the following process:

- i. Cease work in the area and take appropriate steps to secure the site.
- ii. Notify the Office of the State Archaeologist (OSA) and the stakeholders.
- iii. If the remains appear to be ancient (i.e., older than 150 years), the Bioarchaeology Program at the OSA shall have jurisdiction to ensure Iowa law, NAGPRA and the implementing regulations (43CFR10) are observed. In keeping with the policy and procedures of Bioarchaeology Program, the disposition of the remains will be arranged in consultation with the culturally affiliated tribe(s) or the Indian Advisory Council, following the procedures in the OSA/tribal NAGPRA agreement for culturally unidentifiable human remains, if the affiliation is not known.
- iv. If the remains appear to be less than 150 years old, the remains may be legally protected under Chapters 113.34, 144.34, 523I.316, and 716.5 of the Iowa Code and the Iowa Department of Health will be notified.

V. MONITORING AND REPORTING

Each year following the execution of the MOA, in January, until it expires or is terminated, the Iowa DOT shall provide all parties to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, any problems encountered, and any disputes and objections received in the FHWA's efforts to carry out the terms of this MOA.

VI. DISPUTE RESOLUTION

Should any signatory or concurring party to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, the FHWA shall consult with such party to resolve the objection. If the FHWA determines that such objection cannot be resolved, the FHWA will:

- A. Forward all documentation relevant to the dispute, including the FHWA's proposed resolution, to the ACHP. The ACHP shall provide the FHWA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the FHWA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories, and concurring

parties, and provide them with a copy of this written response. The FHWA will then proceed according to its final decision.

- B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, the FHWA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the FHWA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories and concurring parties to the MOA, and provide them and the ACHP with a copy of such written response.
- C. The FHWA's responsibilities to carry out all other actions subject to the terms of this MOA that are not the subject of the dispute remain unchanged.

VII. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all of the signatories is filed with the ACHP.

VIII. TERMINATION

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation X above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories. Once the MOA is terminated, and prior to work continuing on the undertaking, the FHWA must either (a) execute a MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. The FHWA shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the FHWA and the SHPO, and implementation of its terms is evidence that the FHWA has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment.

This agreement is binding upon the signatories hereto not as individuals, but solely in their capacity as officials of their respective organizations and acknowledges proper action of each organization to enter into the same.

DRAFT MEMORANDUM OF AGREEMENT
BETWEEN THE FEDERAL HIGHWAY ADMINISTRATION,
THE IOWA STATE HISTORIC PRESERVATION OFFICER, AND THE IOWA
DEPARTMENT OF TRANSPORTATION
REGARDING REPLACEMENT OF THE GORDON DRIVE VIADUCT (FHWA
#052830) AND BACON CREEK CONDUIT, WOODBURY COUNTY, IOWA;

IOWA SHPO REVIEW AND COMPLIANCE NO. 20190897006
IOWA DOT PROJECT NO. NHS-012-1(37)--19-97

SIGNATORY: FEDERAL HIGHWAY ADMINISTRATION – IOWA DIVISION

Date _____
Mike LaPietra, Environment and Realty Manager

SIGNATORY: IOWA STATE HISTORIC PRESERVATION OFFICER (SHPO)

Date _____
Heather Gibb, State Historic Preservation Officer

SIGNATORY: IOWA DEPARTMENT OF TRANSPORTATION (IOWA DOT)

Date _____
Angela L. Poole, Director, Location and Environment Bureau

CONCURRING PARTY: UNIVERSITY OF IOWA OFFICE OF THE STATE
ARCHAEOLOGIST

Date _____
John F. Doershuk, Director and State Archaeologist

CONCURRING PARTY: SIOUX CITY HISTORIC PRESERVATION COMMISSION

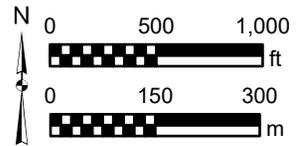
Date _____
Larry Obermeyer, Chair, Sioux City Historic Preservation Commission

Appendix A
Area of Potential Effects



NHS-012-1(37)--19-97
Sioux City, Woodbury County, Iowa

 APE



Appendix B
List of Tribes/Nations

- Flandreau Santee Sioux Tribe
- Iowa Tribe of Kansas and Nebraska
- Iowa Tribe of Oklahoma
- Omaha Tribe of Nebraska
- Otoe-Missouria Tribe
- Pawnee Nation of Oklahoma
- Peoria Tribe of Indians of Oklahoma
- Ponca Tribe of Nebraska
- Prairie Band Potawatomi Nation
- Prairie Island Indian Community
- Sac and Fox Nation of Oklahoma
- Sac and Fox Tribe of the Mississippi in Iowa (Meskwaki Nation)
- Santee Sioux Nation
- Sisseton-Wahpeton Oyate
- Spirit Lake Tribe
- Three Affiliated Tribes - Mandan, Hidatsa, & Arikara
- Upper Sioux Community
- Winnebago Tribe of Nebraska
- Yankton Sioux Tribe

Appendix C
Scope of Work

Appendix C removed due to confidential information.

October 10, 2023

Re: Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment
NHS-012-1(37)—19-97

Dear Sir or Madam:

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration, in cooperation with the Iowa Department of Transportation, is initiating the preparation of an Environmental Assessment (EA) for Gordon Drive Viaduct and Bacon Creek Conduit, in Sioux City, Iowa (the City).

The project involves the reconstruction of an approximately 1.3-mile segment of Gordon Drive starting at Virginia Street and ending near Rustin Street. The Study Area encompasses the existing Gordon Drive Viaduct and the interchange of Gordon Drive at Lewis Boulevard (see attached project location map). The study area also includes the Bacon Creek Conduit (BCC), which runs from Lewis Boulevard on the west to Rustin Street on the east. To account for potential railroad reconstruction, the study area northern limit is 4th Street, and the southern limit extends to approximately Dodge Avenue. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. Other considerations for concept development include improved roadway operations and bicycle/pedestrian facilities, and increased capacity of the BCC.

In May 2019, an early coordination package was distributed to agencies. Subsequently, the City requested including Bacon Creek Conduit reconstruction in the project to optimize improvement planning and construction implementation. Because of the project expansion, we are updating the project description, and re-soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise. The comments and context you provide will be used to determine if the proposed improvements have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate.

The enclosed information should help you understand the nature of the project and help you determine the location of the proposed roadway improvement. To remain on schedule, a response would be appreciated within 30 days of receipt of this letter. If you have any questions about the project please contact DeeAnn Newell by phone at 515-239-1364 or by email at DeeAnn.Newell@iowadot.us.

Sincerely,



Shelby Ebel, AICP
Iowa Department of Transportation
Senior NEPA Project Manager

Enclosures:

Project Description
Map of Project Limits

cc:

Mike LaPietra, FHWA

PROJECT DESCRIPTION

The Iowa Department of Transportation (Iowa DOT) proposes to reconstruct a segment of Gordon Drive (U.S. 20/IA 12) in Sioux City (the City). The project involves the reconstruction of an approximately 1.3-mile segment of Gordon Drive starting at Virginia Street and ending near Rustin Street. The Study Area encompasses the existing Gordon Drive Viaduct and the interchange of Gordon Drive at Lewis Boulevard (see attached project location map). The study area also includes the Bacon Creek Conduit (BCC), which runs from Lewis Boulevard on the west to Rustin Street on the east. To account for potential railroad reconstruction, the study area northern limit is 4th Street, and the southern limit extends to approximately Dodge Avenue. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. Other considerations for concept development include improved roadway operations and bicycle/pedestrian facilities, and an increased flood storage capacity of the BCC.

An Environmental Assessment (EA) will be prepared for the proposed project. An EA is a National Environmental Policy Act (NEPA) document that is required in the preliminary stages of the planning process. The EA is a written record of the analysis of potential impacts to the environment resulting from the proposed project and is prepared for projects for which the potential for significant impacts is unclear. Impacts to both the natural and socioeconomic environment are evaluated.

ANTICIPATED IMPACTS

A wide spectrum of resources will be evaluated including cultural resources, contaminated and regulated material sites, railroads, floodplains, impacts on homes and businesses, socioeconomic resources, noise and air quality, wetlands, and threatened and endangered species. Historic resources include Gordon Drive Viaduct and the South Conduit of BCC. Impacts may vary depending on the elements of the final design.

As part of the proposed project, existing right-of-way will be used whenever practical although additional right-of-way would need to be required to accommodate the proposed reconstruction. Precise right-of-way impacts, as well as potential impacts resulting from noise levels, air quality, cultural resources and natural resources, parks or recreation facilities and the natural environment, will be determined as planning and design activities continue.

DEVELOPMENT PROCEDURES

This project is being developed for federal funding participation. A determination by the Iowa DOT and the Federal Highway Administration has identified this project as requiring preparation of an EA.

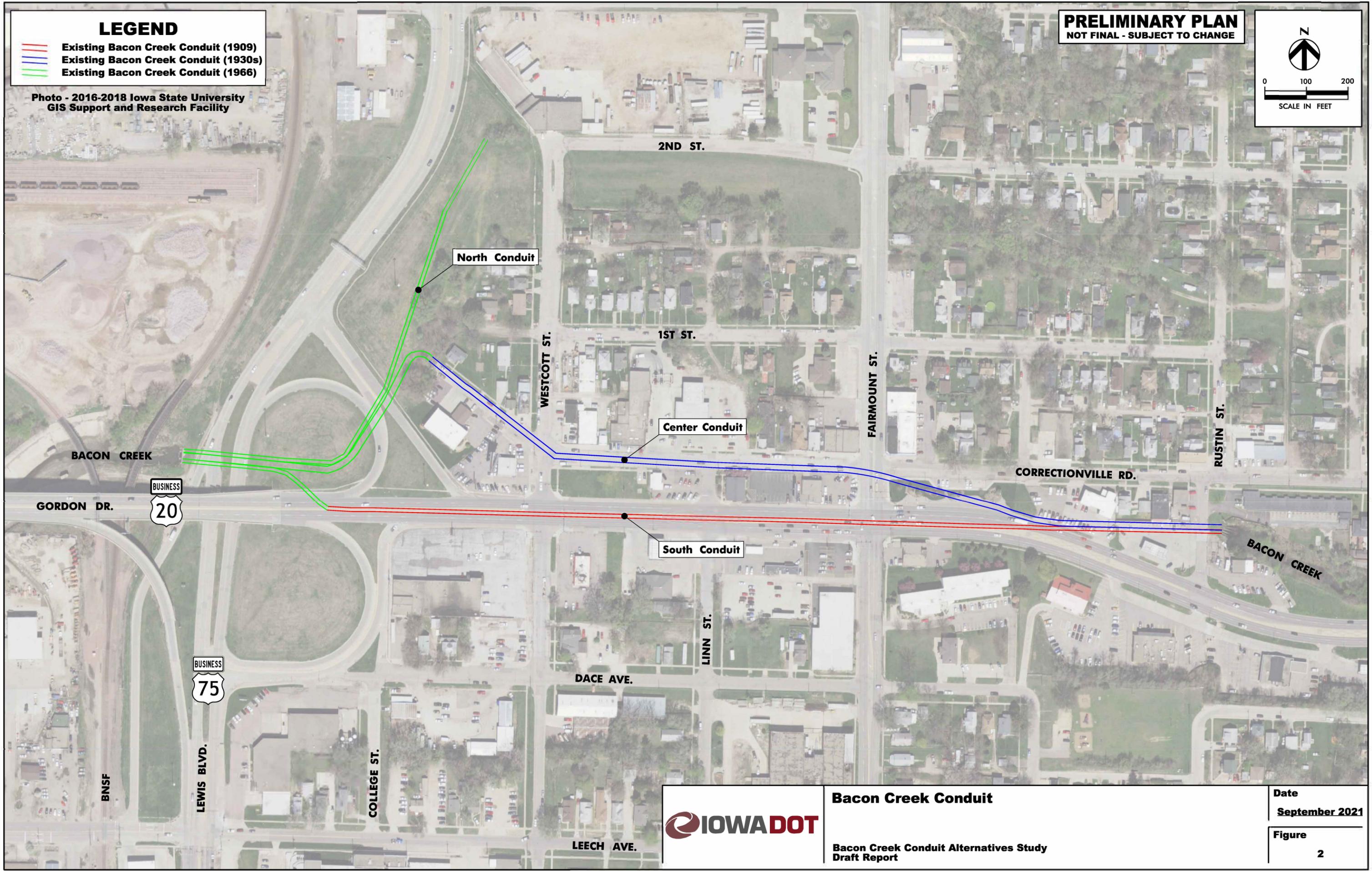
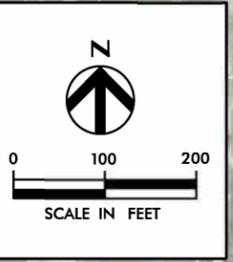
Regulations governing development of federally funded highway improvements require early coordination with units of government who may have interests in the project or its potential impacts. This is intended to provide early notification of the proposed project and to solicit comments regarding the potential impacts of such an action. Several federal, state and local agencies will also be contacted directly to request their early input as part of the project impact identification process.

LEGEND

- Existing Bacon Creek Conduit (1909)
- Existing Bacon Creek Conduit (1930s)
- Existing Bacon Creek Conduit (1966)

Photo - 2016-2018 Iowa State University GIS Support and Research Facility

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



Bacon Creek Conduit

Bacon Creek Conduit Alternatives Study
Draft Report

Date
September 2021

Figure
2

I am forwarding this to Madison Stoltze. I'll copy you both on this.

From: Evans, Christine - FPAC-NRCS, IA <christine.evans@usda.gov>
Sent: Tuesday, October 10, 2023 1:30 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Stoltze, Madison - FPAC-NRCS, IA <Madison.Stoltze@usda.gov>
Subject: RE: [External Email]IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

Shelby,

I am no longer the District Conservationist in Woodbury County for NRCS. If you need a contract for USDA- NRCS for Woodbury County Iowa that person would be Madison Stoltze (formally Friedrich).

Thanks,

Christine Evans

RCCP Programs Coordinator
Neal Smith Federal Building
210 Walnut Street
Des Moines, IA 50309
(515) 323-2608 – Office
(712)363-0182 – Cell

From: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Sent: Tuesday, October 10, 2023 1:18 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Newell, Deeann <DeeAnn.Newell@iowadot.us>; Poole, Angela <Angela.Poole@iowadot.us>
Subject: [External Email]IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

Some people who received this message don't often get email from shelby.ebel@iowadot.us. [Learn why this is important](#)

[External Email]

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Use caution before clicking links or opening attachments.
Please send any concerns or suspicious messages to: Spam.Abuse@usda.gov

Hello-

Please see the attached pdf file for early coordination outreach related to the Iowa DOT's project on IA 12/Gordon Drive in Sioux City, IA (Woodbury County).

Thank you,
Shelby

From: Eggleston, Steven <Steven.Eggleston@hud.gov>
Sent: Wednesday, October 11, 2023 12:44 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Subject: RE: <External Message> IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

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I have reviewed the attachment. This project will not affect any HUD asset.

Steve Eggleston, Field Office Director

Des Moines Field Office
U.S. Department of Housing and Urban Development
210 Walnut Street
Des Moines, IA 50309
515-323-2462
Steven.Eggleston@HUD.gov

From: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Sent: Tuesday, October 10, 2023 1:18 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Newell, Deeann <DeeAnn.Newell@iowadot.us>; Poole, Angela <Angela.Poole@iowadot.us>
Subject: <External Message> IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

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Hello-

Please see the attached pdf file for early coordination outreach related to the Iowa DOT's project on IA 12/Gordon Drive in Sioux City, IA (Woodbury County).

Thank you,
Shelby



SHELBY EBEL, AICP
SENIOR NEPA PROJECT MANAGER
LOCATION & ENVIRONMENT BUREAU

iowadot.gov

Office: 515-239-1996

 Iowa Department of Transportation

 @iowadot

 @iowadot

From: Chase, Patrick - FPAC-NRCS, IA <patrick.chase@usda.gov>
Sent: Friday, October 13, 2023 10:40 AM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Fischer, Jaia - FPAC-NRCS, IA <jaia.fischer@usda.gov>; Hubbert, Jon - FPAC-NRCS, IA <jon.hubbert@usda.gov>
Subject: Re: [External Email]IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

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Good morning

I have conducted a spatial review of the proposed project area. This area does not contain Prime Farmland and is exempt from requirements due to being located within the municipal boundary of Sioux City. Therefore, and AD-1006 will not be required for this project.

Please let me know if you have any further questions.

Patrick Chase

State Soil Scientist

USDA - NRCS

210 Walnut Street, Room 693

Des Moines, Iowa 50309

Office: 515-323-2216

Mobile: 515-570-3909

From: Hubbert, Jon - FPAC-NRCS, IA <jon.hubbert@usda.gov>
Sent: Tuesday, October 10, 2023 1:28 PM
To: Fischer, Jaia - FPAC-NRCS, IA <jaia.fischer@usda.gov>
Cc: Chase, Patrick - FPAC-NRCS, IA <patrick.chase@usda.gov>
Subject: FW: [External Email]IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

Jaia,

Forwarding for follow-up action.

Thanks,
Jon Hubbert
Acting Regional Conservationist - Northeast
USDA - NRCS
Jon.Hubbert@usda.gov
515-323-2210 Office
515-954-9553 Mobile



Follow Iowa NRCS on [Twitter!](#)

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From: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Sent: Tuesday, October 10, 2023 1:18 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Newell, Deeann <DeeAnn.Newell@iowadot.us>; Poole, Angela <Angela.Poole@iowadot.us>
Subject: [External Email]IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

Some people who received this message don't often get email from shelby.ebel@iowadot.us. [Learn why this is important](#)

[External Email]

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Hello-

Please see the attached pdf file for early coordination outreach related to the Iowa DOT's project on IA 12/Gordon Drive in Sioux City, IA (Woodbury County).

Thank you,
Shelby



SHELBY EBEL, AICP
SENIOR NEPA PROJECT MANAGER
LOCATION & ENVIRONMENT BUREAU

iowadot.gov

Office: 515-239-1996

 Iowa Department of Transportation

 @iowadot

 @iowadot



October 13, 2023

Shelby Ebel, AICP
Iowa Department of Transportation
Senior NEPA Project Manager

SUBJECT: IA 12/Gordon Drive in Sioux City

The Natural Resources Conservation Service (NRCS) staff has reviewed the plan with respect to requirements of the Farmland Protection Policy Act (FPPA). The purpose of the Farmland Protection Policy Act (FPPA) as you are aware is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of prime and important farmland to non-agricultural uses. The FPPA requires federal agencies involved in projects that may convert farmland to determine whether the proposed conversion is consistent with the FPPA.

Upon reviewing the spatial area of this project, I found that there is not Prime Farmland in the proposed project area. Furthermore, the project is exempt from FPPA requirements because the activity is taking place within a municipal boundary (Sec. 2(a) [7 USC 658]).

An AD-1006 is not required for these projects due to the exemptions met.

Thank you for the opportunity to comment on this proposed project. If you have any questions or future projects in need of review, please feel free to contact me.

Patrick Chase
State Soil Scientist
USDA - NRCS
210 Walnut Street, Room 693
Des Moines, Iowa 50309
Office: 515-323-2216
Mobile: 515-570-3909

From: Moench, Kathleen <kathleen.moench@dnr.iowa.gov>
Sent: Monday, October 16, 2023 2:05 PM
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Subject: Re: IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination

CAUTION:

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Received, thank you.

Kathleen Moench | Executive Officer

Iowa Department of Natural Resources

502 E. 9th St., Des Moines, IA 50319

C 515-210-3013 | F 515-725-8202

On Tue, Oct 10, 2023 at 1:18 PM Ebel, Shelby <Shelby.Ebel@iowadot.us> wrote:

Hello-

Please see the attached pdf file for early coordination outreach related to the Iowa DOT's project on IA 12/Gordon Drive in Sioux City, IA (Woodbury County).

Thank you,

Shelby



SHELBY EBEL, AICP

SENIOR NEPA PROJECT MANAGER

LOCATION & ENVIRONMENT BUREAU

iowadot.gov

 Iowa Department of Transportation

Office: 515-239-1996

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October 16, 2023

Shelby Ebel, AICP
Iowa Department of Transportation
800 Lincoln Way
Ames, IA 50010

RE: Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment NHS-012-1(37)—
19-97, Early Coordination Letter

Dear Ms. Ebel,

Thank you for the early coordination letter on the Environmental Assessment (EA) for
Gordon Drive Viaduct and Bacon Creek Conduit, in Sioux City, Iowa.

After review of the Federal Land and Water Conservation Fund (LWCF) and State Resources
Enhancement & Protection Fund projects for the City, I have found no projects that would be
affected by the project.

Therefore, it appears that the Gordon Drive Viaduct and Bacon Creek Conduit improvement has
no effect on either program.

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

Sincerely,

Kathleen Moench
LWCF Federal Aid Coordinator

From: ian.willard@dnr.iowa.gov on behalf of [Section 401 WQC, DNR Ebel, Shelby](#)
To: ian.willard@dnr.iowa.gov on behalf of [Section 401 WQC, DNR Ebel, Shelby](#)
Subject: Re: IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination
Date: Monday, October 16, 2023 2:24:10 PM

CAUTION:

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Hi Shelby,

Thank you for reaching out. We have no comments at this time.

Sincerely,

Ian Willard **Section 401 Water Quality Certification**
Water Quality Monitoring and Assessment Section
Iowa Department of Natural Resources
502 E 9th St, Des Moines, IA 50319

----- Forwarded message -----

From: **Ebel, Shelby** <Shelby.Ebel@iowadot.us>
Date: Tue, Oct 10, 2023 at 1:18 PM
Subject: IA 12/Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment Early Coordination
To: Ebel, Shelby <Shelby.Ebel@iowadot.us>
Cc: Newell, Deeann <DeeAnn.Newell@iowadot.us>, Poole, Angela <Angela.Poole@iowadot.us>

Hello-

Please see the attached pdf file for early coordination outreach related to the Iowa DOT's project on IA 12/Gordon Drive in Sioux City, IA (Woodbury County).

Thank you,

Shelby



SHELBY EBEL, AICP

SENIOR NEPA PROJECT MANAGER

LOCATION & ENVIRONMENT BUREAU

iowadot.gov

Iowa Department of Transportation

Office: 515-239-1996

@iowadot

@iowadot

March 15, 2024

Adam Nebel
Section 408 Coordinator and Project Manager
USACE, Omaha District
1616 Capitol Avenue
Omaha, NE 68102-4901

Re: Invitation to Become a Cooperating Agency and Participating Agency
IA-12/Gordon Drive Viaduct Project, NHS-012-1(37)--19-97

Dear Adam:

To comply with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Iowa Department of Transportation (Iowa DOT), is proceeding with the preparation of an Environmental Assessment (EA) for reconstruction of Gordon Drive Viaduct and Bacon Creek Conduit, in Sioux City, Iowa (the City). Previously, a project coordination letter and package were sent to USACE contacts on October 10, 2023, and to date, no response was received. The project letter and package (including a description of the proposed project, and a map of the project limits) are attached for your convenience.

Because your agency has jurisdiction by law and/or has special expertise with respect to an environmental issue, we are inviting your agency to be a cooperating agency with FHWA in the preparation of the EA for this project. This is in accordance with the Council on Environmental Quality's regulations for implementing the procedural provisions of NEPA (40 CFR 1501.8). As a result of your involvement as a cooperating agency in the preparation of the EA, and after an independent review of the EA to ensure that your comments and suggestions have been addressed, you can expect that this EA will satisfy your NEPA obligations and that you can adopt the document without the need to re-circulate it.

The project will include addition and removal of piers within the Floyd River and Bacon Creek, and therefore Section 404 Clean Water Act permitting is anticipated. The amount of disturbance will likely be limited and anticipated to be below an Individual Permit threshold. Two Federal levee systems (Sioux City – Floyd River LB and Sioux City – Floyd River RB) are located north of the project area. The downstream end of the levees stops approximately 0.7 miles upstream from the confluence with the Missouri River, near a railroad crossing. Although the levees are more than 500 feet from proposed project improvements, the federal channel improvements extend through the project area.

Consequently, Engineering Circular (EC) 1165-2-220, Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 [United States Code] USC [Section] 408 applies to the Project.¹ The EC requires that any alteration to right-of-way (ROW) or feature of the federally authorized flood protection systems be reviewed and approved by the USACE District Engineer to determine that the modifications are not injurious to the public interest or do not affect the ability of the project to meet the authorized purpose.

¹ Section 408, originating from Section 14 of the Rivers and Harbors Act of 1899 and codified in 33 USC 408

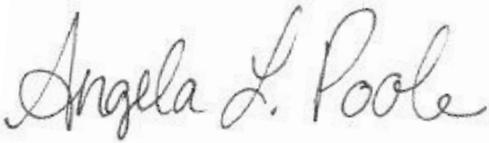
To either accept or decline this invitation, please respond to in writing prior to April 15, 2024. If your agency chooses to decline the invitation, your response should state your reasons for declining:

- Has no jurisdiction or authority with respect to the project;
- Has no expertise or information relevant to the project; and
- Does not intend to submit comments on the project.

If you have any questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the EA for this project, please contact DeeAnn Newell, 515-239-1364.

Thank you for your cooperation and interest in this project.

Sincerely,

A handwritten signature in black ink that reads "Angela L. Poole". The signature is written in a cursive style and is positioned above the typed name and title.

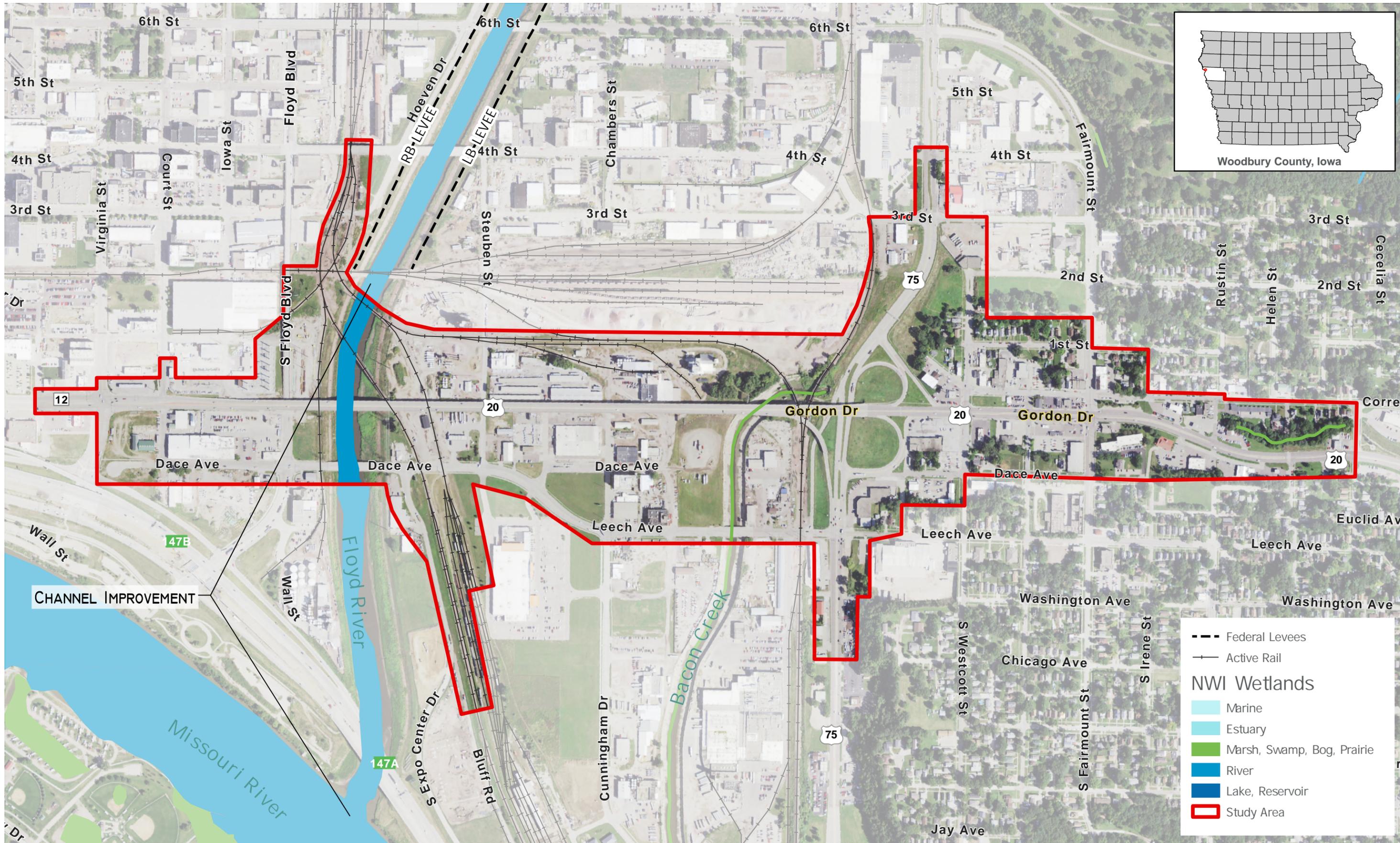
Angela L. Poole Director
Location and Environment Bureau
Iowa DOT

Enclosures:

Previous Coordination Package
Map of Section 404 and Section 408 Constraints

CC:

DeeAnn Newell, Iowa DOT
Mike LaPietra, FHWA



SECTION 404 AND 408 CONSTRAINTS
GORDON DRIVE VIADUCT / BACON CREEK CONDUIT

FIGURE 1

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March 1, 2023

Iowa DOT Project: NHS-012-1(37)--19-97
Iowa SHPO R&C: [20190897006](#)

Mr. Johnathan Vodochodsky, Chair
Sioux City Historic Preservation Commission
(Electronic Only)
Sioux City, IA 51104

RE: Early Consultation for the Gordon Drive/Grand Avenue Viaduct Replacement; 97-02775; FHWA #052830; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Vodochodsky,

As you may recall we began consultation on this project back June 2021 for the initial intensive architectural survey. Since that time the scope of the project has continued to evolve and expand. Due to these changes an additional intensive architectural survey will be conducted this summer. As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. We hosted public information meetings for this project in April of 2021 and November of 2022, information from those meetings can be found by visiting the following URLs:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

<https://www.news.iowadot.gov/pim/2022/10/proposed-replacement-of-gordon-drive-viaduct-and-bacon-creek.html>

As I'm sure your organization is aware, there are a myriad of significant resources in and around the Gordon Drive/Grand Avenue Viaduct. If your organization wishes to act as a consulting party to the Section 106 process for the above referenced project, we ask that you respond in writing within the next 30-days. Attached is a copy of the Advisory Council in Historic Preservation's *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* to aid in providing context for the process the Iowa DOT and FHWA follow. Enclosed is a postage paid envelope for you to use to reply in writing, but please feel free to return comments to us at my email below. I can also provide an FTP link where you can download the previously completed intensive architectural evaluation within the study area.

I would also like to reach out and inquire if the HPC would like me to meet face-to-face to discuss this project and the next steps going forward.

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep the Iowa SHPO and other stakeholders involved. Next steps for this project will include additional environmental studies and further review of alternatives. At this time, we are asking for input from your commission regarding this or any other properties you are aware of within or near this study area. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead



AGENDA

**PLACE: 5th Floor Council Chambers
5th Floor City Hall
405 6th Street**

DATE & TIME: Tuesday, May 2, 2023, 4:00 P.M.

Agenda Items:

1. Call to Order (Roll Call)
2. Approve minutes from April 4, 2023 meeting.
3. Old Business
 - a. Grant Opportunities/Updates (Staff)
 - i. 615 Douglas Street
 - ii. 625 Douglas Street
 - iii. Sergeant Floyd Monument
4. New Business
 - a. Gordon Drive Viaduct Historic Review (Iowa Department of Transportation)
 - b. Hubbard Park National Historic Register Nomination (Staff)
 - c. Dick's Diner National Historic Register Nomination (Staff)
 - d. 625 Water Street Sign Review (Staff)
 - e. 613-615 Pearl Street Sign Review (Staff)
 - f. 312 Court Street Sign Review (Staff)
 - g. 2023 Preserve Iowa Conference (June 1-3) (Staff)
 - i. Volunteers for Conference (Staff)
 - ii. Archaeology Field Day (May 31, 2023) (Larry)
 - h. Monthly Financial Report (Staff)
 - i. Historic Preservation Week (Amy)
5. Committee Reports
 - a. Website Update (Adam / Staff)
 - b. Social Media (Adam/Elizabeth / Staff)
 - c. Red Tags/Properties of Interest (Group)
6. Announcements / Other Business
7. Adjourn (Motion to end Meeting/Vote)

NOTE: IF YOU WILL NOT BE ABLE TO ATTEND THIS MEETING, PLEASE EMAIL Wade Schuldt AT wschuldt@sioux-city.org BY Monday May 1, 2023. THANK YOU.

ADA NOTICE & INCLUSIVE LANGUAGE NOTICE

The City of Sioux City does not discriminate on the basis of disability in admission to, access to, or operations of its programs, services, or activities. Individuals who need auxiliary aids for effective communication in programs and services of the City of Sioux City are invited to make their needs and preferences known to the ADA Compliance Officer, City Hall, 406 - 6th Street, Room 204, 712-279-6200. This notice is provided as required by Title II of the Americans with Disabilities Act of 1990.

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Historic Preservation Commission Agendas and Minutes are now accessible on the web at:
www.siouxcityhp.org

May 3, 2023

Iowa DOT Project: NHS-012-1(37)--19-97
 Iowa SHPO R&C: [20190897006](#)

Mr. Larry Obermeyer, Chair
 Sioux City Historic Preservation Commission
 (Electronic Only)
 Sioux City, IA 51104

RE: May 2, 2023, Sioux City HPC Meeting Recap for the Gordon Drive/Grand Avenue Viaduct Replacement; 97-02775; FHWA #052830; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Obermeyer,

First of all, thank you and the Historic Preservation Commission for your time at the May 2, 2023, Sioux City HPC meeting. Brennan and I enjoyed being in person to present an update on the Gordon Drive/Grand Avenue Viaduct Replacement project. To reiterate, we began consultation on this project back June 2021 for the initial intensive architectural survey. Since that time the scope of the project has continued to evolve and expand. Due to these changes a supplemental intensive architectural survey will be conducted this summer. Once this supplemental survey is completed and reviewed by our Bureau, we will provide the Sioux City HPC and other interested stakeholders a copy of this survey.

The previously completed survey identified 144 properties were included in the study area, of which 114 were historic in age. Table 1 below identifies the properties identified as eligible or potentially eligible. Our consultant has recommended these 16 properties eligible or potentially eligible for nomination to the National Register of Historic Places, we agree with these recommendations. If you would like copies of the Iowa Site Inventory Forms (enclosed are examples) or the report, please let me know and I can send either/or both electronic and physical copies.

Table 1 – Eligible Structures

Site Inventory	Address	Notes	NRHP Status
97-00066	2922 Correctionville Rd	Residence	Eligible
97-00067	3000 Correctionville Rd	Residence	Eligible
97-00091	2715 Correctionville Rd	Hacker, Anton House	Potentially Eligible
97-00244	2512 1 st St	Residence	Potentially Eligible
97-00245	2606 1 st St	Residence	Potentially Eligible
97-00286	2625 1 st St	Residence	Potentially Eligible
97-02496	1804 Dace Ave	Swift & Co. Produce Plant	Eligible
97-02775	Gordon Dr	Grand Ave Viaduct	Eligible
97-03217	1951 Leech Ave	Swift & Co. Admin. Building	Eligible
97-06053	212 S Helen St	Residence	Eligible
97-06066	1919 Grand Ave	Kay Dee Feed Co.	Potentially Eligible
97-06073	2400 Leech Ave	Wilson Trailer Co.	Eligible
97-06078	2610 Gordon Dr	Tastee Inn & Out	Eligible
97-06079	2613 Dace Ave	Residence	Potentially Eligible
97-06087	Old Floyd River Channel	Floyd River Flood Control Channel	Eligible
97-06090	Gordon Drive	Bacon Creek Conduit (original)	Eligible

As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct and the Bacon Creek conduit (see ISIFs for 97-06090, 97-06091, 97-06092). We hosted public information meetings for this project in April of 2021 and November of 2022, information from those meetings can be found by visiting the following URLs:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

<https://www.news.iowadot.gov/pim/2022/10/proposed-replacement-of-gordon-drive-viaduct-and-bacon-creek.html>

As mentioned yesterday, if the HPC would like to consider assigning a dedicated member as a point of contact for Section 106 consultation I will gladly work with them to provide regular updates on the project.

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep the Iowa SHPO and other stakeholders involved. Next steps for this project will include additional environmental studies and further review of alternatives. At this time, we are asking for input from your commission regarding this or any other properties you are aware of within or near this study area. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Dakin Schultz – District 3 Planner
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead

November 6, 2023

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: 20190897006

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

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Additional Phase I Intensive Archeological Investigation and Intensive Historic Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Dan and Sara,

As you may recall we began early consultation on this project back in 2019 and have continued consultation in 2021 and 2022. In these previous consultation letters, you have agreed with the results of the initial Phase I archaeological survey and intensive historic architectural survey. Since those initial surveys the scope of the project has continued to evolve, and we have conducted supplemental Phase I archaeological survey and intensive historic architectural survey. As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct.

Enclosed for your review and comment is the Phase I intensive archaeological investigation. The initial investigation reviewed the Area of Potential Effect (APE) consisting of 156 ac (63.18 ha) and the supplemental survey reviewed an additional 60.2 ac (24.4 ha) for a total of 216.2 ac (87.5 ha). This survey also investigated areas that were access was denied previously and completed additional testing for sites previously recommended for additional Phase I investigation. Most of this area has been heavily urbanized. The supplemental survey excavated 241 subsurface tests for a total, 355 subsurface tests excavated within the APE. This survey identified an additional five archaeological sites and provided additional phase I investigation for 13WD233, 13WD235, 13WD236, and 13WD244. Table 1 below summarizes the results and recommendations of the archaeological investigations. Of the sites surveyed, seven have been recommended for avoidance or Phase II evaluation.

Table 1 – Supplemental Phase I Archaeological Investigation Summary and Recommendations

Site #	Investigation Recommendation	NRHP Recommendation
13WD233	Avoidance/Phase II	Potentially Eligible
13WD234	No Further Investigation	Not Eligible
13WD235	Avoidance/Phase II	Potentially Eligible
13WD236	Avoidance/Phase II	Potentially Eligible
13WD237	No Further Investigation	Not Eligible
13WD238	Avoidance/Phase II	Potentially Eligible
13WD239	Avoidance/Phase II	Potentially Eligible
13WD241	No Further Investigation	Not Eligible
13WD242	No Further Investigation	Not Eligible
13WD244	Avoidance/Phase II	Potentially Eligible
13WD246	No Further Investigation	Not Eligible
13WD247	No Further Investigation	Not Eligible
13WD248	No Further Investigation	Not Eligible
13WD249	No Further Investigation	Not Eligible
13WD250	Avoidance/Phase II	Potentially Eligible

Also enclosed for your review and comment is the supplemental intensive historic architectural survey. This survey identified 51 architectural properties within the expanded APE and/or needed additional information from the previous survey, of which 37 are historic age and 14 are modern (45 years of age or less). This report provided additional context on railroad development in Sioux City and the urban renewal efforts in the Floyd Bottoms area. Of the historic age properties, four (97-00286, 97-06073, 97-06079, and 97-06104) were recommended eligible for the National Register of Historic Places (NRHP) and 33 were recommended not eligible for the NRHP (See Table 2). This survey also identified the Rail Resources Historic District (97-06100), which consists of the Illinois Central Railroad Site, Sioux City and Pacific Railroad Site, Chicago and Northwestern Railroad Site, Sioux City and Northern Railroad Site, Union Pacific Railroad Site, Sioux City Terminal Railroad Site, and Burlington Northern Santa Fe Railroad Site. Due to loss of integrity this district was recommended not eligible for the NRHP.

Table 2 – Supplemental Intensive Historic Architectural Survey Summary and Recommendations

ISIF #	Property Name	NRHP Recommendation
97-00286	Dwelling	Eligible
97-06073	Wilson Trailer Company	Eligible
97-06079	Dwelling	Eligible
97-06104	Illinois Central Freight Depot	Eligible
97-00091	Anton Hacker House	Not eligible
97-00117	Dwelling	Not eligible
97-00155	Dwelling	Not eligible
97-00236	Dwelling	Not eligible
97-00244	Dwelling	Not eligible
97-00245	Dwelling	Not eligible
97-00273	Dwelling	Not eligible
97-00275	Dwelling	Not eligible
97-00276	Dwelling	Not eligible
97-00277	Dwelling	Not eligible
97-00278	Dwelling	Not eligible
97-00279	Dwelling	Not eligible
97-00281	Dwelling	Not eligible
97-00283	Dwelling	Not eligible
97-00284	Dwelling	Not eligible
97-00285	Dwelling	Not eligible
97-01651	Wholesale Warehouse	Not eligible
97-01695	Fourth Street Viaduct	Not eligible
97-02495	Cameron Ashley Building Products	Not eligible
97-03964	Grain Elevator	Not eligible
97-03967	Sioux City Terminal Railway Engine House	Not eligible
97-04769	Sioux City Gas and Electric Company Pipe Shop	Not eligible
97-06066	Kay-Dee Feed Company	Not eligible
97-06070	Marx Truck Lines	Not eligible
97-06098	Boone Bros. Roofing	Not eligible
97-06099	T&S Antique Store	Not eligible
97-06100	Rail Resources Historic District	Not eligible
97-06101	Union Pacific Railroad Bridge	Not eligible
97-06102	Omaha Steel Railroad Bridge	Not eligible
97-06103	Warehouse & Spurs	Not eligible
97-06105	Sioux Honey Association	Not eligible
97-06106	Sapp Bros Petroleum	Not eligible
97-06107	Tri State Auto Sale	Not eligible

At this time, we are requesting your concurrence with the findings of these investigations.

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur: _____ Date: _____
SHPO Archaeologist

Concur: _____ Date: _____
SHPO Architectural Historian

Comments:

From: [Sara Andre](#)
To: [Becker, Janee](#)
Cc: [Dolan, Brennan](#); shpo106@iowaeda.com; allison.archambo@iowaeda.com; branden.scott@iowaeda.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830
Date: Friday, January 12, 2024 12:54:32 PM

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The Iowa DOT is still considering several alternatives and has not chosen a preferred.

- As part of the Section 106 process (800.4, identification of historic resources), we provide the following comments regarding eligibility assessments for resources surveyed in the report provided: *Supplemental Intensive Level Historical and Architectural Survey and Evaluation for Gordon Drive/Grand Avenue Viaduct, Sioux City, Woodbury County, Iowa*, HADB No. 90-070, Tallgrass Archaeology, Tallgrass Archaeology Report No. TA23-880--2, November 2023.
- We agree with the eligibility recommendation and find that the following are eligible for listing in the National Register of Historic Places (NR):
 - Dwelling, 2625 1st Street, 97-00286
 - Wilson Trailer Company, 2400 Leach Avenue, 97-06073
 - Dwelling, 2613 Dace Avenue, 97-06079
 - Illinois Central Freight Depot, 413 Clark Street, 97-06104
- We agree with the recommendations that the following are not eligible for listing in the NR:
 - 97-00091 Anton Hacker House Not eligible
 - 97-00117 Dwelling Not eligible
 - 97-00155 Dwelling Not eligible
 - 97-00236 Dwelling Not eligible
 - 97-00244 Dwelling Not eligible
 - 97-00245 Dwelling Not eligible
 - 97-00273 Dwelling Not eligible
 - 97-00275 Dwelling Not eligible
 - 97-00276 Dwelling Not eligible
 - 97-00277 Dwelling Not eligible
 - 97-00278 Dwelling Not eligible
 - 97-00279 Dwelling Not eligible
 - 97-00281 Dwelling Not eligible
 - 97-00283 Dwelling Not eligible
 - 97-00284 Dwelling Not eligible
 - 97-00285 Dwelling Not eligible
- We do not agree with the recommendation that the Rail Resources Historic District is not eligible. SHPO understands that the current survey was limited in area by the project APE, however, there does appear to be a larger eligible Sioux City Rail Yards historic district that

would encompass much of this survey area and likely further norther to include remaining railyards, resources, etc.

- Additionally, the evaluation methods and resource counting/description, etc. contained within the Tallgrass report do not appear to fully encompass all possible areas of significance (such as commerce and industry, esp. as related to meatpacking, transportation, etc.), nor are all resources included (such as the tracks themselves, etc.).
- We would also note that what might not be individually eligible, may be contributing to an historic district and thus resources within and related to the Rail Yards and railroads, would need to be re-evaluated.
- We look forward to continuing consultation on this project with you and recognize the size and significance of this project.

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Sincerely,

Sara André
Architectural Historian/Historic Preservation Specialist
State Historic Preservation Office
Pronouns: She/Her/Hers
sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority 

November 7, 2023

Iowa DOT Project: NHS-12-1(37)--19-97
 Iowa SHPO R&C: [20190897006](#)

Mr. Garrie KILLSAHUNDRED, THPO
 Flandreau Santee Sioux
 PO Box 283
 Flandreau, SD 57028

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Additional Phase I Intensive Archeological Investigation; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. KILLSAHUNDRED,

Consultation on this project began in 2019, and in previous consultation letters, SHPO agreed with the results of an initial Phase I archaeological survey. Since those initial surveys the scope of the project has continued to evolve, and we have conducted a supplemental Phase I archaeological survey. As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe. The enclosed excerpts are intended to supplement your review of this undertaking by helping describe what has been found. As always if you would like additional information about this project just let me know.

Enclosed for your review and comment is the Phase I intensive archaeological investigation. The initial investigation reviewed the Area of Potential Effect (APE) consisting of 156 ac (63.18 ha) and the supplemental survey reviewed an additional 60.2 ac (24.4 ha) for a total of 216.2 ac (87.5 ha). This survey also investigated areas where access was denied previously and completed additional testing for sites previously recommended for additional Phase I investigation. Most of this area has been heavily urbanized. The supplemental survey excavated 241 subsurface tests for a total, 355 subsurface tests excavated within the APE. This survey identified an additional five archaeological sites and provided additional phase I investigation for 13WD233, 13WD235, 13WD236, and 13WD244. The table below summarizes the results and recommendations of the archaeological investigations. Of the sites surveyed, seven have been recommended for avoidance or Phase II evaluation.

Supplemental Phase I Archaeological Investigation Summary and Recommendations

Site #	Cultural Affiliation	Investigation Recommendation	NRHP Recommendation
13WD233	Historic	Avoidance/Phase II	Potentially Eligible
13WD234	Historic	No Further Investigation	Not Eligible
13WD235	Historic	Avoidance/Phase II	Potentially Eligible
13WD236	Historic	Avoidance/Phase II	Potentially Eligible
13WD237	Prehistoric/Historic	No Further Investigation	Not Eligible
13WD238	Prehistoric/Historic	Avoidance/Phase II	Potentially Eligible
13WD239	Prehistoric/Historic	Avoidance/Phase II	Potentially Eligible
13WD241	Historic	No Further Investigation	Not Eligible
13WD242	Historic	No Further Investigation	Not Eligible
13WD244	Woodland period/Historic	Avoidance/Phase II	Potentially Eligible
13WD246	Woodland period/Historic	No Further Investigation	Not Eligible
13WD247	Prehistoric	No Further Investigation	Not Eligible
13WD248	Historic	No Further Investigation	Not Eligible
13WD249	Historic	No Further Investigation	Not Eligible
13WD250	Historic	Avoidance/Phase II	Potentially Eligible

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately. Enclosed with this package is a postage-paid notification form that you may use, if you wish, to return comments about the project. If you would prefer to view information about this project electronically, please ask me about our SharePoint consultation option.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knieval - HDR

From: [Sara Childers](#)
To: [Becker, Janee](#)
Subject: Gordon Drive/Grand Ave NHS-12-1(37)--19-97
Date: Friday, November 24, 2023 3:36:40 PM

CAUTION:

This email originated from outside the Iowa Department of Transportation.
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Hello,

The Flandreau Santee Sioux Tribe has no issues with the proposed project in this area.

If any cultural material and or human remains are disturbed please stop and contact us ASAP.

Thank you,

Sara Childers

Confidentiality Notice: This information contained in this message may be privileged and/or confidential and protected from disclosure. If the reader of this message is not the intended recipient or an employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by replying to this message and deleting the material from any computer.

Pawnee Nation

Tuesday, December 05, 2023

Janee Becker
Cultural Resources Manager
Location and Environment
Iowa Department of Transportation

RE: *Proposed Reconstruction of Gordon Drive/Grand Avenue Viaduct*
NHS-012-1(37)-19-97
FHWA 052830
Sioux City, Woodbury County, Iowa

The Pawnee Nation Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Consultation with the Pawnee Nation is required by Section 106 of the National Historic Preservation Act of 1966 (NHPA) and 36 CFR Part 800.

Given the information provided, you are hereby notified that the proposed project/s should not adversely affect the cultural landscape of the Pawnee Nation.

However, be advised that additional undiscovered properties could be encountered, and they must immediately be reported to us under both the National Historic Preservation Act and the Native American Graves Protection and Repatriation Act regulations.

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Should you have questions, please do not hesitate to contact me at jreed@pawneenation.org or by phone at 918-762-2180 ext. 220. Thank you for your time and consideration.

Sincerely,



Matt Reed
Historic Preservation Officer
Pawnee Nation of Oklahoma

Historic Preservation Office
Matt Reed
Phone: 918.762.2180
E-mail: jreed@pawneenation.org
P.O. Box 470
Pawnee, Oklahoma 74058

November 10, 2023

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: 20190897006

Mr. Larry Obermeyer, Chair
Sioux City Historic Preservation Commission
(Electronic Only)
Sioux City, IA 51104

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Historic Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Obermeyer,

Consultation on this project began in 2019 and in previous consultation letters, SHPO agreed with the results of an initial intensive historic architectural survey. Since that initial survey, the scope of the project has continued to evolve, and we have conducted a supplemental intensive historic architectural survey. As design continues, we are working toward a project determination that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. At this time, we are inquiring as to whether your organization wishes to act as a consulting party to the Section 106 process for this project; if you wish to do so we ask that you respond in writing within the next 30-days. Enclosed is a copy of the Advisory Council in Historic Preservation's Protecting Historic Properties: A Citizen's Guide to Section 106 Review.

Enclosed for your review and comment is the supplemental intensive historic architectural survey. This survey identified 51 architectural properties within the expanded APE and/or needed additional information from the previous survey, of which 37 are historic age and 14 are modern (45 years of age or less). This report provided additional context on railroad development in Sioux City and the urban renewal efforts in the Floyd Bottoms area. Of the historic age properties, four (97-00286, 97-06073, 97-06079, and 97-06104) were recommended eligible for the National Register of Historic Places (NRHP) and 33 were recommended not eligible for the NRHP (See Table 2). This survey also identified the Rail Resources Historic District (97-06100), which consists of the Illinois Central Railroad Site, Sioux City and Pacific Railroad Site, Chicago and Northwestern Railroad Site, Sioux City and Northern Railroad Site, Union Pacific Railroad Site, Sioux City Terminal Railroad Site, and Burlington Northern Santa Fe Railroad Site. Due to loss of integrity this district was recommended not eligible for the NRHP.

Supplemental Intensive Historic Architectural Survey Summary and Recommendations

ISIF #	Property Name	NRHP Recommendation
97-00286	Dwelling	Eligible
97-06073	Wilson Trailer Company	Eligible
97-06079	Dwelling	Eligible
97-06104	Illinois Central Freight Depot	Eligible
97-00091	Anton Hacker House	Not eligible
97-00117	Dwelling	Not eligible
97-00155	Dwelling	Not eligible
97-00236	Dwelling	Not eligible
97-00244	Dwelling	Not eligible
97-00245	Dwelling	Not eligible
97-00273	Dwelling	Not eligible

97-00275	Dwelling	Not eligible
97-00276	Dwelling	Not eligible
97-00277	Dwelling	Not eligible
97-00278	Dwelling	Not eligible
97-00279	Dwelling	Not eligible
97-00281	Dwelling	Not eligible
97-00283	Dwelling	Not eligible
97-00284	Dwelling	Not eligible
97-00285	Dwelling	Not eligible
97-01651	Wholesale Warehouse	Not eligible
97-01695	Fourth Street Viaduct	Not eligible
97-02495	Cameron Ashley Building Products	Not eligible
97-03964	Grain Elevator	Not eligible
97-03967	Sioux City Terminal Railway Engine House	Not eligible
97-04769	Sioux City Gas and Electric Company Pipe Shop	Not eligible
97-06066	Kay-Dee Feed Company	Not eligible
97-06070	Marx Truck Lines	Not eligible
97-06098	Boone Bros. Roofing	Not eligible
97-06099	T&S Antique Store	Not eligible
97-06100	Rail Resources Historic District	Not eligible
97-06101	Union Pacific Railroad Bridge	Not eligible
97-06102	Omaha Steel Railroad Bridge	Not eligible
97-06103	Warehouse & Spurs	Not eligible
97-06105	Sioux Honey Association	Not eligible
97-06106	Sapp Bros Petroleum	Not eligible
97-06107	Tri State Auto Sale	Not eligible

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
 Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
 Sioux City Historic Preservation Commission – Larry Obermeyer
 Sioux City Public Museum – Steven Hansen
 Jessica Felix – District 3 Engineer
 Shane Tymkowicz – Assistant District 3 Engineer
 Gary Harris – Location Engineer
 DeeAnn Newell – NEPA Team Lead
 Brian Goss/Paul Knievel - HDR

November 10, 2023

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: 20190897006

Mr. Steven Hansen
Sioux City Public Muesum – Director
607 4th Street
Sioux City, IA 51101

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Historic Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Hansen,

Consultation on this project began in 2019 and in previous consultation letters, SHPO agreed with the results of an initial intensive historic architectural survey. Since that initial survey, the scope of the project has continued to evolve, and we have conducted a supplemental intensive historic architectural survey. As design continues, we are working toward a project determination that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. At this time, we are inquiring as to whether your organization wishes to act as a consulting party to the Section 106 process for this project; if you wish to do so we ask that you respond in writing within the next 30-days. Enclosed is a copy of the Advisory Council in Historic Preservation's Protecting Historic Properties: A Citizen's Guide to Section 106 Review.

Enclosed for your review and comment is the supplemental intensive historic architectural survey. This survey identified 51 architectural properties within the expanded APE and/or needed additional information from the previous survey, of which 37 are historic age and 14 are modern (45 years of age or less). This report provided additional context on railroad development in Sioux City and the urban renewal efforts in the Floyd Bottoms area. Of the historic age properties, four (97-00286, 97-06073, 97-06079, and 97-06104) were recommended eligible for the National Register of Historic Places (NRHP) and 33 were recommended not eligible for the NRHP (See Table 2). This survey also identified the Rail Resources Historic District (97-06100), which consists of the Illinois Central Railroad Site, Sioux City and Pacific Railroad Site, Chicago and Northwestern Railroad Site, Sioux City and Northern Railroad Site, Union Pacific Railroad Site, Sioux City Terminal Railroad Site, and Burlington Northern Santa Fe Railroad Site. Due to loss of integrity this district was recommended not eligible for the NRHP.

Supplemental Intensive Historic Architectural Survey Summary and Recommendations

ISIF #	Property Name	NRHP Recommendation
97-00286	Dwelling	Eligible
97-06073	Wilson Trailer Company	Eligible
97-06079	Dwelling	Eligible
97-06104	Illinois Central Freight Depot	Eligible
97-00091	Anton Hacker House	Not eligible
97-00117	Dwelling	Not eligible
97-00155	Dwelling	Not eligible
97-00236	Dwelling	Not eligible
97-00244	Dwelling	Not eligible
97-00245	Dwelling	Not eligible
97-00273	Dwelling	Not eligible

97-00275	Dwelling	Not eligible
97-00276	Dwelling	Not eligible
97-00277	Dwelling	Not eligible
97-00278	Dwelling	Not eligible
97-00279	Dwelling	Not eligible
97-00281	Dwelling	Not eligible
97-00283	Dwelling	Not eligible
97-00284	Dwelling	Not eligible
97-00285	Dwelling	Not eligible
97-01651	Wholesale Warehouse	Not eligible
97-01695	Fourth Street Viaduct	Not eligible
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97-03967	Sioux City Terminal Railway Engine House	Not eligible
97-04769	Sioux City Gas and Electric Company Pipe Shop	Not eligible
97-06066	Kay-Dee Feed Company	Not eligible
97-06070	Marx Truck Lines	Not eligible
97-06098	Boone Bros. Roofing	Not eligible
97-06099	T&S Antique Store	Not eligible
97-06100	Rail Resources Historic District	Not eligible
97-06101	Union Pacific Railroad Bridge	Not eligible
97-06102	Omaha Steel Railroad Bridge	Not eligible
97-06103	Warehouse & Spurs	Not eligible
97-06105	Sioux Honey Association	Not eligible
97-06106	Sapp Bros Petroleum	Not eligible
97-06107	Tri State Auto Sale	Not eligible

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
 Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
 Sioux City Historic Preservation Commission – Larry Obermeyer
 Sioux City Public Museum – Steven Hansen
 Jessica Felix – District 3 Engineer
 Shane Tymkowicz – Assistant District 3 Engineer
 Gary Harris – Location Engineer
 DeeAnn Newell – NEPA Team Lead
 Brian Goss/Paul Knievel - HDR

February 14, 2024

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: [20190897006](#)

Ms. Sara André
State Historic Preservation Office
1963 Bell Avenue, Suite 200
Des Moines, IA 50315

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Bridge Alternatives Technical Memorandum; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Sara,

Enclosed for your review and comment is the Rehabilitation and Reuse Evaluation report for the Gordon Drive Viaduct (GDV) in Sioux City. This effort was requested by the Iowa DOT to more fully assess the possibility to rehabilitating and reusing the existing GDV. As we saw on our recent field review (2/8/2024) the structural condition of the GDV is compromised and the Iowa DOT and our partners have a real sense of urgency in working toward this improvement project. I have also included information from various Iowa DOT discussions to address some basic questions about need and purpose of the project as our current assessment for refined alternatives. As you know rehabilitation is a required alternative for historic bridges under Section 4(f). As you will read, the report assessed multiple options, beyond the three required under Section 4(f) [no build, rehabilitate, build off alignment].

To summarize rehabilitation is not recommend by our consultant team, largely due to the structural condition of the GDV. You will note on page three that the GDV has a long history of maintenance and up keep. This includes the substantial 2008 project that lead to the earlier cultural resources mitigation for the GDV (see BRFN-012-1(24)--39-97, and R&C 20061197056). As you know this recommendation and the viable options set us on a course for discussion of potential effects to the bridge. Currently, the report is under review with Iowa Division FHWA.

Due to the historical significance of the bridge, we want to make sure that we are considering all viewpoints. We encourage you to share any comments you have about the report or its findings. Should you or any other stakeholder feel the need for a face-to-face meeting to discuss this report please let us know and we'd be happy to host an open discussion.

We have continued to discuss and consult with a number stakeholders including face-to-face meetings with local groups like the Sioux City Historic Preservation Commission and Sioux City Public Museum. Per 36CFR800.3(f) we are requesting your input regarding other potential consulting parties.

I'd like to thank you for visiting the project area with us on 2/8/2024, that was a successful meeting and helped all of us understand the various considerations for the project. The Iowa DOT, the City, as well as all stakeholders are continuing to review project alternatives, therefore no project determination can be offered at this time. Next steps for this project will include additional environmental studies, additional public meetings and further consideration of alternatives in pursuit of our responsibilities under the NHPA as well as NEPA. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur: _____ Date: _____

SHPO Architectural Historian

Comments:

From: [Jarell Grant](#)
To: [Dolan, Brennan](#); [Mark Parker](#)
Cc: [Becker, Janee](#)
Subject: Re: Sioux City Construction site visit
Date: Wednesday, March 13, 2024 9:34:36 AM
Attachments: [image004.png](#)
[image001.png](#)
[RES. 20-04A.PDF](#)

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

Greetings,

I apologize for getting this to you a day after. Please view the attached resolution.

From: Dolan, Brennan <Brennan.Dolan@iowadot.us>
Sent: Thursday, March 7, 2024 2:45 PM
To: Mark Parker <mark.parker@theomahatribe.com>; Jarell Grant <jarell.grant@theomahatribe.com>
Cc: Becker, Janee <Janee.Becker@iowadot.us>
Subject: RE: Sioux City Construction site visit

Mark/Jarell –

Lets shoot for the **Home Depot on Cunningham Drive (415 Cunningham Dr) @ 10:00 on Tuesday 3/12.**

For additional background see the attached [Gordon Drive Phase II Sites](#) map.

- Work at Sites 13WD235 and 13WD236 is completed. Both of these sites consist of historic era materials (1875-1925 households connected to the stockyards area).
- Work at Site 13WD233 will begin on Tuesday. This site is also a historic residence (1890s-1920s). I've attached the Iowa Archaeological Site Form for your review.
- The last site to receive phase II National Register evaluation is 13WD244. This site is a multicomponent site that contain both prehistoric and historic deposits. The prehistoric/precontact component is rather deeply buried under some overburden. I've attached the Iowa Archaeological Site Form for your review.

I hope this helps to provide some context to the project. *At this point we are working toward a preferred alternative, but construction is not scheduled until 2028.*

Let me know if you have any questions, and please don't hesitate to call.

Brennan Dolan, RPA 16260
Cultural Resources Team Lead/Tribal Liaison
Location and Environment Bureau
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

515-239-1795
brennan.dolan@iowadot.us
iowadot.gov



From: Mark Parker <mark.parker@theomahatribe.com>
Sent: Thursday, March 7, 2024 1:13 PM
To: Dolan, Brennan <Brennan.Dolan@iowadot.us>
Cc: Jarell Grant <jarell.grant@theomahatribe.com>; Becker, Janee <Janee.Becker@iowadot.us>
Subject: RE: Sioux City Construction site visit

CAUTION:

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Tuesday at 10:00 works best for us. All we need now is a location to meet and we're good to go.

From: Dolan, Brennan <Brennan.Dolan@iowadot.us>
Sent: Thursday, March 7, 2024 11:45 AM
To: Mark Parker <mark.parker@theomahatribe.com>
Cc: Jarell Grant <jarell.grant@theomahatribe.com>; Becker, Janee <Janee.Becker@iowadot.us>
Subject: RE: Sioux City Construction site visit

Hey Mark,

I could make Monday or Tuesday work.

Let me know what your preference is and we can plan a meet-up location. Would 10:00 work for you?

Thanks!

Brennan Dolan, RPA 16260
Cultural Resources Team Lead/Tribal Liaison
Location and Environment Bureau
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010
515-239-1795
brennan.dolan@iowadot.us
iowadot.gov



From: Mark Parker <mark.parker@theomahatribe.com>
Sent: Thursday, March 7, 2024 11:34 AM

To: Dolan, Brennan <Brennan.Dolan@iowadot.us>

Cc: Jarell Grant <jarell.grant@theomahatribe.com>

Subject: Sioux City Construction site visit

CAUTION:

This email originated from outside the Iowa Department of Transportation.

Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello Mr. Dolan,

We would like to schedule a site visit whenever works for you. This article got around to our leadership and raised flags of curiosity, so to help put their minds at ease we would like to get an eyes on report for them.

We will await your response. Thanks

June 12, 2024

Ref. NHS-012-1(37)--19-97
Primary System
Woodbury County
R&C: 20190897006

Ms. Sara André
Mr. Branden Scott
State Historic Preservation Office
1963 Bell Avenue, Suite 200
Des Moines, Iowa 50315

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Phase II Archaeological Evaluation and Additional Information for the Sioux City Railyard and Industrial Potential Historic District; Sioux City; Woodbury County; Iowa; **Possible Adverse Effect**

Dear Sara and Branden:

Consultation on this project back began in 2019 and has continued in 2021, 2022, and 2023, and includes an on-site review on February 8, 2024. In these previous consultation letters, you have agreed with the results of the initial Phase I archaeological survey and initial intensive historic architectural survey. Additionally, your office concurred with the supplemental Phase I archaeological survey results and the majority of recommendations provided in the supplemental intensive historic architectural survey. As design continues, we are working toward a project determination.

Enclosed for your review and comment is the Phase II evaluations of 13WD233, 13WD235, 13WD236, and 13WD244 along with the updated evaluation of the Sioux City Railyard and Industrial Potential Historic District (97-06100). Per our discussions during and following the on-site review in February 2024, please see the revised Iowa Site Inventory Forms for the Sioux City Railyard and Industrial Potential Historic District (97-06100) and its potentially contributing and non-contributing properties.

As you will read, the Phase II evaluation tested four sites. Two of the four sites are recommended eligible for the National Register of Historic Places (NRHP) under Criterion D. Sites 13WD233 and 13WD236 represent historic-period scatters with 13WD233 also containing structural foundations. Both sites have poor stratigraphic integrity and are recommended not eligible for the NRHP. Site 13WD235 represents a historic-period scatter with buried features associated with an early 20th century residential neighborhood. Due to the presence of intact buried features, strongly diagnostic artifact assemblage, and potential to produce data related to an early residential neighborhood near the Sioux City Stockyards, this site was recommended eligible for the NRHP under Criterion D. Site 13WD244 represents a Woodland Period scatter with a disturbed historic period scatter component. This site retains integrity, potentially contains multiple occupations, and contains rare artifact types and has been recommended eligible for the NRHP under Criterion D. Table 1 below provides some details regarding these four archaeological deposits and the recommendations offered in this report.

Table 1 – Phase II Evaluation Summary and Recommendations

Site	Type	Cultural Affiliation	NRHP Recommendation	Notes
13WD233	Historic residential	19 th -20 th Century Euro American	Not eligible	
13WD235	Historic residential	Early 20 th Century Euro American	Eligible Criterion D	
13WD236	Historic residential	19 th -20 th Century Euro American	Not eligible	
13WD244	Woodland Period scatter/historic scatter	Woodland Period / 19th-20th Century Euro American	Eligible Criterion D	Prehistoric component only; historic component non-contributing

At this time, we are requesting your concurrence with the findings of these recommendations. No formal determination of effect for this project has been made. As this project continues to develop, we will continue to work through the NHPA Section 106 as well as NEPA process and keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,

Janee Becker



Cultural Resources Manager/Archaeologist

- Cc: Tribes/Nations – Woodbury County Interest
Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur: _____ Date: _____
SHPO Archaeologist

Concur: _____ Date: _____
SHPO Architectural Historian

Comments:

July 1, 2024

Ref. NHS-012-1(37)--19-97
Primary System
Woodbury County
R&C: 20190897006

Ms. Sara André
Mr. Branden Scott
State Historic Preservation Office
1963 Bell Avenue, Suite 200
Des Moines, Iowa 50315

RE: Notification of Findings for the Bridge Replacement of the Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Sioux City; Woodbury County; Iowa; **Adverse Effect**

Dear Sara and Branden:

Consultation on this project back began in 2019 and has continued in 2021, 2022, 2023, 2024, and includes an on-site review on February 8, 2024. In the years that have transpired since our initial consultation, in partnership with the City of Sioux City, FHWA Iowa Division, and your office, the Iowa DOT has worked to develop alternatives in an attempt to avoid adverse effects to this historic bridge (FHWA #052830). The results of our alternatives analysis have led to the selection of a bridge replacement for this project. The reason for this selection largely hinges on the poor structural condition of FHWA #052830. The Gordon Drive Viaduct was previously rehabilitated in 2005 and has undergone multiple maintenance projects between 1976–2024. Despite these efforts the Iowa DOT has had to close the westbound lanes and load post the bridge to 20 tons on June 18, 2024.

Alternative Analysis

The Gordon Drive/Grand Avenue Viaduct (97-02775; FHWA #052830) was evaluated as eligible for the NRHP under Criteria A and C by the 1994 FraserDesign statewide bridge survey. As you know the bridge was previously subject to cultural resources mitigation under R&C 20061197056. FHWA was provided an updated Bridge Alternatives Tech Memo on June 18, 2024, based on comments from FHWA on the package provided on February 13, 2024. FHWA agreed for the need to replace FHWA #052830 on June 20, 2024. Enclosed for your records is the updated Bridge Alternatives Tech Memo. Based on the results, the proposed project will adversely affect the Gordon Drive/Grand Avenue Viaduct (97-02775; FHWA #052830).

Archaeological Sites 13WD235 and 13WD244

Through a Phase I archaeological survey (Rogers and Nagel 2022), a supplemental Phase I archaeological survey (Moe and McGrath-Seegmiller 2023), and Phase II Evaluation (Moe et al. 2024) identified two archaeological sites (13WD 235 and 13WD244) as eligible for the NRHP under Criterion D. Regarding 13WD235 (Historic Residence) and 13WD244 (Woodland Period pre-contact scatter/historic scatter), the design team has taken steps to attempt to avoid these properties. This includes consideration of various alternatives in the pre-design phase of the project. Due to the proximity of existing facilities, and the complexity of the undertaking (substantial viaduct and multiple underground storm sewer conduits) substantive limits of the project engineering exist. Therefore, avoidance and minimization of effects to these sites is not

feasible and we at this time we anticipate that these sites will be adversely affected by the proposed project. Moving forward we foresee completing data recovery at these two archaeological deposits.

Bacon Creek Conduit (97-06090)

This project also includes the closing of the Bacon Creek Conduit (BCC; 97-06090). As we have discussed at the April 2024 CIT meeting, the Iowa DOT and its consultant HDR have produced several fill options that include the use of a bond breaker. The preferred alternative in the provided Bacon Creek Conduit Fill Options Memo is alternative 3, which almost completely leaves the conduit intact, albeit with fill present. Given the extensive consideration for avoiding removal of the BCC, we are asking for your concurrence with our determination of a no adverse effect in regard to the closing and filling of the BCC. If your office would like to further discuss these options, please let us know and we will set up a meeting with the District and HDR.

Other Avoided Resources

In consideration of the other resources near the project area, we do not anticipate any adverse effects to the following: Floyd River Flood Control Channel (97-06087); Tastee Inn & Out (97-06078); Albert, M., Grocery (97-00100); and Sioux City Rail Yards and Industrial Potential Historic District (97-06100). To avoid inadvertent effects to these properties, we anticipate the use of our avoidance protocols including: restricted area demarcation on project plans, pre-construction meetings with the contractors, and vibration monitoring of historic structures.

Following your review and concurrence, it looks as though we will be working through an **Adverse Effect** scenario and the mitigation process under the NRHP (36 CFR 800.5-6), for the following three properties: Gordon Drive/Grand Avenue Viaduct (97-02775; FHWA #052830), historic residence 13WD235, and Woodland Period pre-contact scatter/historic scatter 13WD244. Next steps will be to notify stakeholders (including ACHP), formalize mitigation of these historic properties, and review a draft memorandum of agreement. If you concur with this approach, please sign below and add any comments that you may have. We anticipate continued consultation with Tribes/Nations with interest in Woodbury County, the Sioux City Historic Preservation Commission, and the Sioux City Public Museum for this project. Since our initial consultation, the Historic Bridge Foundation has asked to be removed from consultation.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,

Janee Becker



Cultural Resources Manager/Archaeologist



KIM REYNOLDS, GOVERNOR
ADAM GREGG, LT. GOVERNOR

SCOTT MARLER, IOWA DOT DIRECTOR
TROY JERMAN, IOWA DOT COO

IOWA DEPARTMENT OF TRANSPORTATION
LOCATION AND ENVIRONMENT BUREAU
800 Lincoln Way
Ames, IA 50010
515-233-7820
www.iowadot.gov

Cc: Tribes/Nations – Woodbury County Interest
Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur: _____ Date: _____
SHPO Archaeologist

Concur: _____ Date: _____
SHPO Architectural Historian

Comments:

From: branden.scott@email.iowaeda.com
To: [Becker, Janee](mailto:Becker_Janee)
Cc: sara.andre@iowaeda.com; cindy.nagel@tallgrassarchaeology.com; allison.archambo@iowaeda.com; [Dolan, Brennan](mailto:Dolan_Brennan); heather.gibb@iowaeda.com; shpo106@iowaeda.com
Subject: RE: R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct: 97-02775; FHWA #052830
Date: Thursday, August 1, 2024 7:16:04 AM

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

Ms. Becker:

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the replacement of the Gordon Drive Viaduct and the interchange improvements along Gordon Drive and Lewis Boulevard.

Thank you for your review of the previous letter and identifying the typo. This is a meaningful thing to correct. This is a reissuance of the letter, with the correction in site eligibility made.

Thank you for providing the Phase II archaeological report for our review. This response concerns only archaeological resources, and the architectural/built environment aspect of the submission is still under review. You will be hearing from Sara Andre soon. In our opinion, the Phase II report prepared by Tallgrass Archaeology LLC meets Association of Iowa Archaeologists guidelines. We also agree that 13WD233 and 13WD236 are not eligible for inclusion on the National Register of Historic Places. Furthermore, we agree that 13WD235 and 13WD244 are eligible for inclusion on the National Register of Historic Places. While the report does not go into great detail on this point, we believe the historic Euro-American component of 13WD244 does not contribute to the site's significance under Criterion D. It is our understanding that these two eligible sites cannot be avoided. We concur with the federal agency and/or their designated representative (Adverse Effect) as it concerns archaeological resources. We look forward to reviewing data recovery plans and an MOA to mitigate adverse effects.

This case will remain open while reviewers finish the above ground review. You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

With kind regards,

Branden K. Scott
Archaeologist, State Historic Preservation Office
branden.scott@iowaeda.com | 515.348.6291 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

----- Original Message -----

From: branden.scott@email.iowaeda.com [branden.scott@email.iowaeda.com]
Sent: 7/31/2024 6:17 AM
To: janee.becker@iowadot.us
Cc: sara.andre@iowaeda.com; allison.archambo@iowaeda.com; brennan.dolan@iowadot.us;
shpo106@iowaeda.com; heather.gibb@iowaeda.com; cindy.nagel@tallgrassarchaeology.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830

Ms. Becker:

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the replacement of the Gordon Drive Viaduct and the interchange improvements along Gordon Drive and Lewis Boulevard.

Thank you for providing the Phase II archaeological report for our review. This response concerns only archaeological resources, and the architectural/built environment aspect of the submission is still under review. You will be hearing from Sara Andre soon. In our opinion, the Phase II report prepared by Tallgrass Archaeology LLC meets Association of Iowa Archaeologists guidelines. We also agree that 13WD235 and 13WD236 are not eligible for inclusion on the National Register of Historic Places. Furthermore, we agree that 13WD235 and 13WD244 are eligible for inclusion on the National Register of Historic Places. While the report does not go into great detail on this point, we believe the historic Euro-American component of 13WD244 does not contribute to the site's significance under Criterion D. It is our understanding that these two eligible sites cannot be avoided. We concur with the federal agency and/or their designated representative (Adverse Effect) as it concerns archaeological resources. We look forward to reviewing data recovery plans and an MOA to mitigate adverse effects.

This case will remain open while reviewers finish the above ground review. You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

With kind regards,

Branden K. Scott
Archaeologist, State Historic Preservation Office
branden.scott@iowaeda.com | 515.348.6291 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

----- Original Message -----

From: Branden Scott [branden.scott@iowa.gov]
Sent: 3/19/2024 5:47 AM
To: janee.becker@iowadot.us
Cc: allison.archambo@iowaeda.com; brennan.dolan@iowadot.us; shpo106@iowaeda.com;
sara.andre@iowaeda.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830

Ms. Becker:

We have received your submittal for the above referenced federal undertaking and the technical assistance requested. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The Iowa DOT is still considering several alternatives and has not chosen a preferred.

We agree that mechanical stripping is the best means of accessing archaeological deposits at the sites recommended for Phase II testing by Tallgrass Archaeology, Inc. We agree with their research strategy, and we look forward to reviewing the results of the investigation.

I will be returning this case to you so that you can provide additional information when it becomes available. You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

With kind regards,

Branden K. Scott

Archaeologist, State Historic Preservation Office

branden.scott@iowaeda.com | 515.348.6291 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

----- Original Message -----

From: Sara Andre [sara.andre@iowa.gov]

Sent: 2/13/2024 4:08 PM

To: janee.becker@iowadot.us

Cc: allison.archambo@iowaeda.com; brennan.dolan@iowadot.us; branden.scott@iowaeda.com; shpo106@iowaeda.com; heather.gibb@iowaeda.com

Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830

I'd like to take the opportunity to thank you for the opportunity to visit the location of this proposed project on February, 8 2024. As I'm sure you are aware, site visit can be invaluable to both assessing eligibility and effects.

As had been mentioned in previous emails, there does appear to be an eligible historic district in this area, a portion of which is located within the project APE. This district, the Sioux City Rail Yards and Industrial Historic District is likely eligible under Criteria A and C, with areas of significance associated with industry, engineering, and commerce. At this time, the boundaries of the district are not fully assessed. SHPO will be noting the historic district as loosely located within the following area: north of Gordon Drive, east of Floyd Blvd, south of 6th St, and west of Lewis Blvd. It appears there may be an even larger area that follows the rail lines on either side of the Floyd River, but there is no current survey of these areas at this time and more evaluation would be needed. We do recognize that this is outside of the current scope of the project.

Regarding Kay-Dee Feed Company. This is a very complex assortment of buildings in three groupings (as noted in the survey, the consultant evaluated them as three buildings total). The company, in operation at this location since 1928 has made substantial additions and changes over time. Many of them appear to be historic changes. but also many appear to have occurred within the last 40 years. It is likely that only 1 of the 3 buildings is contributing to the eligible district. However, keep in mind that portions of that building may not be character-defining.

We look forward to reviewing project plans when they become available and consulting with you on this complex project. Please let me know if any clarification of the above is needed.

Kind regards,

Sara
Sara André
Architectural Historian/Historic Preservation Specialist
State Historic Preservation Office
Pronouns: She/Her/Hers
sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

----- Original Message -----

From: Sara Andre [sara.andre@iowa.gov]
Sent: 1/16/2024 10:49 AM
To: jane.becker@iowadot.us
Cc: allison.archambo@iowaeda.com; brennan.dolan@iowadot.us; branden.scott@iowaeda.com; shpo106@iowaeda.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The Iowa DOT is still considering several alternatives and has not chosen a preferred.

The following email contains information regarding archaeological survey and reporting, as well as clarification regarding historical/architectural history survey.
Archaeology

Supplemental Phase I archaeological survey and reporting (TA23-880) are consistent with AIA best practices.

SHPO concurs with NR evaluations of the following (*Evaluations from 2022 survey/review):

Not eligible - 13WD234*, 13WD237, 13WD241*, 13WD242, 13WD246, 13WD247, 13WD248,

13WD249;
not evaluated (avoidance/Phase 2 evaluation) - 13WD233, 13WD235, 13WD236, 13WD238*,
13WD239*, 13WD244, 13WD250.

Clarification regarding Architectural History/Historical Survey

SHPO agrees that the below are not individually eligible for listing in the National Register of Historic Places, however along with the potential Sioux City Rail Yards HD, these resources, located within that area, should be evaluated as to possible contributing/non-contributing status.

97-01651 Wholesale Warehouse Not eligible
97-01695 Fourth Street Viaduct Not eligible
97-02495 Cameron Ashley Building Products Not eligible
97-03964 Grain Elevator Not eligible
97-03967 Sioux City Terminal Railway Engine House Not eligible
97-04769 Sioux City Gas and Electric Company Pipe Shop Not eligible
97-06066 Kay-Dee Feed Company Not eligible
97-06070 Marx Truck Lines Not eligible
97-06098 Boone Bros. Roofing Not eligible
97-06099 T&S Antique Store Not eligible
97-06101 Union Pacific Railroad Bridge Not eligible
97-06102 Omaha Steel Railroad Bridge Not eligible
97-06103 Warehouse & Spurs Not eligible
97-06105 Sioux Honey Association Not eligible
97-06106 Sapp Bros Petroleum Not eligible
97-06107 Tri State Auto Sale Not eligible

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Sincerely,

Sara André
Architectural Historian/Historic Preservation Specialist
State Historic Preservation Office
Pronouns: She/Her/Hers
sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority

----- Original Message -----

From: Sara Andre [sara.andre@iowa.gov]
Sent: 1/12/2024 12:54 PM
To: janee.becker@iowadot.us
Cc: brennan.dolan@iowadot.us; shpo106@iowaeda.com; allison.archambo@iowaeda.com;
branden.scott@iowaeda.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Improvement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The Iowa DOT is still considering several alternatives and has not chosen a preferred.

As part of the Section 106 process (800.4, identification of historic resources), we provide the following comments regarding eligibility assessments for resources surveyed in the report provided: Supplemental Intensive Level Historical and Architectural Survey and Evaluation for Gordon Drive/Grand Avenue Viaduct, Sioux City, Woodbury County, Iowa, HADB No. 90-070, Tallgrass Archaeology, Tallgrass Archaeology Report No. TA23-880--2, November 2023. We agree with the eligibility recommendation and find that the following are eligible for listing in the National Register of Historic Places (NR):

Dwelling, 2625 1st Street, 97-00286
Wilson Trailer Company, 2400 Leach Avenue, 97-06073
Dwelling, 2613 Dace Avenue, 97-06079
Illinois Central Freight Depot, 413 Clark Street, 97-06104

We agree with the recommendations that the following are not eligible for listing in the NR:

97-00091 Anton Hacker House Not eligible
97-00117 Dwelling Not eligible
97-00155 Dwelling Not eligible
97-00236 Dwelling Not eligible
97-00244 Dwelling Not eligible
97-00245 Dwelling Not eligible
97-00273 Dwelling Not eligible
97-00275 Dwelling Not eligible
97-00276 Dwelling Not eligible
97-00277 Dwelling Not eligible
97-00278 Dwelling Not eligible
97-00279 Dwelling Not eligible
97-00281 Dwelling Not eligible
97-00283 Dwelling Not eligible
97-00284 Dwelling Not eligible
97-00285 Dwelling Not eligible

We do not agree with the recommendation that the Rail Resources Historic District is not eligible. SHPO understands that the current survey was limited in area by the project APE, however, there does appear to be a larger eligible Sioux City Rail Yards historic district that would encompass much of this survey area and likely further norther to include remaining railyards, resources, etc. Additionally, the evaluation methods and resource counting/description, etc. contained within the Tallgrass report do not appear to fully encompass all possible areas of significance (such as commerce and industry, esp. as related to meatpacking, transportation, etc.), nor are all resources included (such as the tracks themselves, etc.). We would also note that what might not be individually eligible, may be contributing to an historic district and thus resources within and related to the Rail Yards and railroads, would need to be re-

evaluated.

We look forward to continuing consultation on this project with you and recognize the size and significance of this project.

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Sincerely,

Sara André
Architectural Historian/Historic Preservation Specialist
State Historic Preservation Office
Pronouns: She/Her/Hers
sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority 

From: sara.andre@email.iowaeda.com
To: [Becker, Janee](mailto:Becker_Janee)
Cc: allison.archambo@iowaeda.com; [Dolan, Brennan](mailto:Dolan_Brennan); heather.gibb@iowaeda.com; shpo106@iowaeda.com; marcus.schulenburg@iowaeda.com
Subject: R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830
Date: Monday, August 5, 2024 10:02:56 AM

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - 00035660 - FHWA - Woodbury - Replacement of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830 - This project proposes to improve a segment of Gordon Drive (a.k.a. Iowa Highway 12/a.k.a. Grand Avenue Viaduct) that includes the replacement of the Gordon Drive Viaduct and the interchange improvements along Gordon Drive and Lewis Boulevard.

- Concur with the federal agency and/or their designated representative (Adverse Effect).
- Please note SHPO is still finalizing review of the above-ground resources inventory. This response is forthcoming, however, as noted above, we do concur with the overall effects finding.
- We look forward to continuing consultation with you on this project. If you have not already reached out to the Sioux City Historic Preservation Commission and other possible consulting parties, please do so.

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Sincerely,

Sara André
Architectural Historian/Historic Preservation Specialist
State Historic Preservation Office
Pronouns: She/Her/Hers
sara.andre@iowaeda.com | +1 (515) 348-6286 | culture.iowaeda.com/shpo

Iowa Economic Development Authority 

July 10, 2024

Ref. NHS-012-1(37)--19-97
Primary System
Woodbury County
R&C: 20190897006

Mr. Garrie KILLSAHUNDRED, THPO
Flandreau Santee Sioux
PO Box 283
Flandreau, SD 57028

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Phase II Archaeological Evaluation and Additional Information for the Sioux City Railyard and Industrial Potential Historic District; Sioux City; Woodbury County; Iowa; **Possible Adverse Effect**

Dear Mr. KILLSAHUNDRED:

Enclosed for your review and comment is the Phase II evaluations of 13WD233, 13WD235, 13WD236, and 13WD244 along with the updated evaluation of the Sioux City Railyard and Industrial Potential Historic District (97-06100). As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe. The enclosed excerpts are intended to supplement your review of this undertaking by helping describe what has been found. As always, if you would like additional information about this project just let me know.

As you will read, the Phase II evaluation tested four sites. Two of the four sites are recommended eligible for the National Register of Historic Places (NRHP) under Criterion D. Sites 13WD233 and 13WD236 represent historic-period scatters with 13WD233 also containing structural foundations. Both sites have poor stratigraphic integrity and are recommended not eligible for the NRHP. Site 13WD235 represents a historic-period scatter with buried features associated with an early 20th century residential neighborhood. Due to the presence of intact buried features, strongly diagnostic artifact assemblage, and potential to produce data related to an early residential neighborhood near the Sioux City Stockyards, this site was recommended eligible for the NRHP under Criterion D. Site 13WD244 represents a Woodland Period scatter with a disturbed historic period scatter component. This site retains integrity, potentially contains multiple occupations, and contains rare artifact types and has been recommended eligible for the NRHP under Criterion D. Table 1 below provides some details regarding these four archaeological deposits and the recommendations offered in this report.

Table 1 – Phase II Evaluation Summary and Recommendations

Site	Type	Cultural Affiliation	NRHP Recommendation	Notes
13WD233	Historic residential	19 th -20 th Century Euro American	Not eligible	
13WD235	Historic residential	Early 20 th Century Euro American	Eligible Criterion D	
13WD236	Historic residential	19 th -20 th Century Euro American	Not eligible	
13WD244	Woodland Period scatter/historic scatter	Woodland Period / 19 th -20 th Century Euro American	Eligible Criterion D	Prehistoric component only; historic component non-contributing

No formal determination of effect for this project has been made. As this project continues to develop, we will continue to work through the NHPA Section 106 as well as NEPA process and keep stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately. Enclosed with this package is a postage-paid notification form that you may use, if you wish, to return comments about the project. If you would prefer to view information about this project electronically, please ask me about our SharePoint consultation option.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,

Janee Becker



Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Sioux City Historic Preservation Commission – Larry Obermeyer
Sioux City Public Museum – Steven Hansen
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

From: [Mark Parker](#)
To: [Becker, Janee](#)
Cc: [Jarell Grant](#); [Calvin Harlan](#); [Greg Phillips](#)
Subject: Gordon Drive/Grand Avenue Viaduct reconstruction project
Date: Thursday, July 25, 2024 4:48:20 PM

CAUTION:

This email originated from outside the Iowa Department of Transportation.
Do not click links or open attachments unless you recognize the sender and know the content is safe.

Greetings,

The Omaha THPO have received the Phase II Archaeological Evaluation packet on the Sioux City Viaduct reconstruction project for request to comment. After reviewing the information, site number 13WD244 has raised interest in our leadership and request that the THPO be involved in this project moving forward. We feel it would be in all parties best interest that we have a tribal monitor on site during the construction/ground disturbance in this area during the project. I would like to thank those at Tallgrass Archaeology for their efforts with the detailed report and the care taken to preserve the artifacts that have been discovered. We are familiar with the area as we visited the sites with Mr. Brennan Dolan and I've accompanied Mr. Justin Moe during the excavation of 13WD244. Thank you for the chance to express our concerns and look forward to hearing back from you.

Respectfully,

Mark Parker
THPO Cultural Resource Lead
The Omaha Tribe of Nebraska
(402) 837-5391 ext. 433

August 8, 2024

Ref. NHS-012-1(37)--19-97
Primary System
Woodbury County
R&C: 20190897006

Mr. Garrie KILLSAHUNDRED, THPO
Flandreau Santee Sioux
PO Box 283
Flandreau, SD 57028

RE: Notification of Findings for the Bridge Replacement of the Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Sioux City; Woodbury County; Iowa; **Adverse Effect**

Dear Mr. KILLSAHUNDRED:

Consultation on this project back began in 2019 and has continued in 2021, 2022, 2023, and 2024. In the years that have transpired since our initial consultation, in partnership with the City of Sioux City and FHWA Iowa Division, the Iowa DOT has worked to develop alternatives that improve traffic operations and safety of the Gordon Drive Viaduct and corresponding intersections. The results of our alternatives analysis have led to the selection of a bridge replacement for this project. The reason for this selection largely hinges on the poor structural condition of FHWA #052830. The Gordon Drive Viaduct was previously rehabilitated in 2005 and has undergone multiple maintenance projects between 1976–2024. Despite these efforts the Iowa DOT has had to close the westbound lanes and load post the bridge to 20 tons on June 18, 2024.

As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe. The enclosed excerpts are intended to supplement your review of this undertaking by helping describe what has been found. As always, if you would like additional information about this project just let me know.

Through this process, the design team has taken steps to avoid and minimize harm historic properties and archaeological sites that have been evaluated as eligible for the National Register of Historic Places (NRHP; see Table 1). However, two archaeological sites (13WD235 and 13WD244) cannot be avoided. These sites were identified through a Phase I archaeological survey (Rogers and Nagel 2022), a supplemental Phase I archaeological survey (Moe and McGrath-Seegmiller 2023), and Phase II Evaluation (Moe et al. 2024). 13WD235 (Historic Residence) and 13WD244 (Woodland Period pre-contact scatter/historic scatter) were recommended as eligible for the NRHP under Criterion D. Due to the proximity of existing facilities, and the complexity of the undertaking (substantial viaduct and multiple underground storm sewer conduits) substantive limits of the project engineering exist. Therefore, avoidance and minimization of effects to these two sites is not feasible and we anticipate that these sites will be adversely affected by the proposed project. Moving forward we foresee completing data recovery at these 13WD235 and 13WD244.

Table 1 – Eligible or Potentially Eligible Properties Identified within the Area of Potential Effect

Site #	Site Type	NRHP Recommendation	Avoidance
13WD235	Historic residential	Eligible	Cannot Avoid
13WD238	Historic residential/Prehistoric scatter	Potentially Eligible	Avoided
13WD239	Historic residential/Woodland open habitation	Potentially Eligible	Avoided
13WD244	Woodland Period scatter/Historic scatter	Eligible	Cannot Avoid
13WD250	Historic brick cisterns	Potentially Eligible	Avoided

Following your review, it looks as though we will be working through an **Adverse Effect** scenario and the mitigation process under the NRHP (36 CFR 800.5-6), for the following three properties: Gordon Drive/Grand Avenue Viaduct (97-02775; FHWA #052830), historic residence 13WD235, and Woodland Period pre-contact scatter/historic scatter 13WD244. Next steps will be to notify stakeholders (including ACHP), formalize mitigation of these historic properties and archaeological sites, and review a draft memorandum of agreement.

Consultation on this project will continue as we move through the mitigation process. If you wish to be involved and participate in drafting the memorandum of agreement or future data recovery effort, please let me know.

Enclosed with this package is a postage-paid notification form that you may use, if you wish, to return comments about the project. If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,

Janee Becker



Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Mike LaPietra - FHWA
Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR



Form 536002 04/15

Tribal Notification Form
To: Iowa Tribe of Kansas and Nebraska

Date 08/08/2024 IA DOT contact Janee Becker
IADOT project # NHS-12-1(37)--19-97 Phone # 515-233-7820
Location Gordon Dr Viaduct, Rustin St to Virginia St in Sioux City E-mail Janee.becker@iowadot.us
Description Preliminary Engineering

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

Type of Coordination/Consultation Points
1 - Early project notification (project map and description)
2 - Notification of survey findings (Phase I)
2a - Notification of site evaluation (Phase II)
3 - Consultation regarding site treatment
4 - Data Recovery Report
5 - Other

Type of Findings
No American Indian archaeology site(s) found --Section 106 Consultation Process ends*
American Indian archaeology sites found but not eligible for National Register listing -- Section 106 Consultation Process ends*
Avoided American Indian archaeology sites eligible for National Register listing (see map and list of sites) --Section 106 Consultation Process may or may not end
Potentially significant American Indian archaeology sites found (see map and list of sites)
American Indian archaeology sites eligible for National Register listing cannot be avoided (see map)
Burial site found
Early Consultation (No investigations conducted)
0 # of non-significant prehistoric archaeology sites
0 # of potentially significant prehistoric archaeology sites
1 # of National Register-eligible prehistoric archaeology sites

Affected National Register Properties
Investigating avoidance or minimizing harm options Protected
Avoided National Register Evaluation

*****Please Respond*****

Who should we contact for site/project-related discussions?
ALAN KELLEY 3345 THRASHER RD WHITE CLOUD KS
Name Street Address City, Zip Code
785-351-3251 AKELLEY@IOWAS.ORG
Phone E-mail

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

- Thank you for the information; however, we do not need to consult on this particular project.
We have no objections at this time, but request continued notification on this project.
Please send a copy of the archaeology report.
Thank you for the information. We are satisfied with the planned site treatment.
We have concerns and wish to consult.
We wish to participate in the Memorandum of Agreement for this project.

Comments

ALAN KELLEY DEPUTY THPO 8-20-2024
Name Tribe or Nation Date

(Comments continued on back)

September 4, 2024

Ref. NHS-012-1(37)--19-97
Primary System
Woodbury County
R&C: 20190897006

Ms. Sara André
State Historic Preservation Office
1963 Bell Avenue, Suite 200
Des Moines, Iowa 50315

RE: Supplemental Information for the Bridge Replacement of the Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Sioux City; Woodbury County; Iowa; **Adverse Effect**

Dear Sara:

On Thursday, August 29, 2024, we met in-person to discuss the Gordon Drive/Grand Avenue Viaduct (97-02775) project. In this meeting you concurred with the overall Adverse Effect determination for the Gordon Drive/Grand Avenue Viaduct (97-02775) and that the proposed leave in place strategy for the Bacon Creek Conduit (97-06090) would have no adverse effects to the Bacon Creek Conduit. Additionally, we discussed your concerns with the recommendations for the Sioux City Rail Yards and Industrial Potential Historic District (97-06100). Enclosed for your records is additional documentation concerning the Kay Dee Feed Company (97-06066) and the 1924 Westcott Street concrete bridge (97-06071), which while not individually eligible, were likely contributing to the historic district.

Following our in-person meeting, we have put together the below supplemental information and attached project plans for your records.

Marx Property Bridge (1924 Westcott Street concrete bridge; 97-06071)

- We do not anticipate direct impacts to the old Floyd River Bridge at the Marx property from the proposed roadway, sidewalk, or culvert improvements. The existing bridge would be over 25 ft from the proposed Lewis Blvd NB curb line, which would be outside the proposed NB 12 ft-wide clear zone. The proposed ground intercept line would be about 17 ft behind the proposed back of curb, which should leave more than 8 ft from our construction limit to the bridge.

Kay Dee Feed Company (97-06066)

- The scale at Kay Dee Feeds will not be directly impacted by construction since it sits on Kay Dee property, which we do not intend to acquire permanent property rights. The scale may be temporarily inaccessible during reconstruction, which is why District 3 is talking about a temporary scale location west of Floyd Blvd. We may need a temporary easement from Kay Dee to reconnect the scale roadway to the circulation south of their facility.
- We intend to leave the area in front of the Kay Dee Feeds rollup doors as currently graded so the doors should remain accessible and usable. It should be noted that the truck size/type may be limited in the future to pickups and shorter single units since the new fill embankment will close off access under Gordon Dr. Semis probably won't be able to access the doors any longer.

- The doors may be inaccessible during construction since the new fill plug embankment will cut off access across Gordon Dr.
- It should be noted that Kay Dee Feeds door landing extends onto existing City ROW. We are unsure if the District will require them to vacate that portion of the ROW or look to sell the ROW that the landing sits on.

Based on the provided project plans and supplemental information, this project will not adversely effect the Sioux City Rail Yards and Industrial Potential Historic District (97-06100). As stated above, your office previously concurred with the Adverse Effect for Gordon Drive/Grand Avenue Viaduct (97-02775), 13WD235, and 13WD244, the information provided herein further supports our determination. As noted last week we will now be providing our collective (Iowa Division FHWA / Iowa DOT) notice of Adverse Effect to the Advisory Council on Historic Preservation (ACHP). Once we hear back from the ACHP we will be reaching out to your office and other stakeholders to discuss MOA stipulations. If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

Sincerely,

Janee Becker



Cultural Resources Manager/Archaeologist

Cc: Jessica Felix – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Appendix C – Iowa DOT Public Meeting Schedule (Public Involvement)

Public Meeting	Date
Gordon Drive Viaduct – In Person	05/21/2019
Gordon Drive Viaduct Meeting #2 - Online	04/27/2021
Gordon Drive Viaduct Meeting #2 – In Person	04/27/2021
Proposed Corridor Preservation Zone – In Person	05/27/2021
Corridor Preservation Zone – In Person	10/13/2021
Gordon Drive Viaduct Meeting #3 – In Person	11/15/2022

From: [Newell, Deeann](#)
To: [Felix, Jessica](#); [Tymkowicz, Shane](#); [Schultz, Dakin](#)
Cc: [Harris, Gary](#); [Knivel, Paul J.](#); [Goss, Brian](#); [Carlson, Michael](#); [Solberg, Marc](#); angela.poole@iowadot.us
Subject: FW: Invitation to Become a Cooperating Agency and Participating Agency
Date: Tuesday, March 26, 2024 7:14:38 AM
Attachments: [image001.png](#)

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

The USACE is interested in becoming a cooperating agency and would like a pre-application meeting.

From: Nebel, Adam R CIV USARMY CENWO (USA) <Adam.R.Nebel@usace.army.mil>
Sent: Monday, March 25, 2024 4:32 PM
To: Newell, Deeann <DeeAnn.Newell@iowadot.us>
Cc: Poole, Angela <Angela.Poole@iowadot.us>; MICHAEL LaPietra <Mike.LaPietra@dot.gov>; Zehr, Matthew A CIV USARMY CEMVR (USA) <Matthew.A.Zehr@usace.army.mil>
Subject: RE: Invitation to Become a Cooperating Agency and Participating Agency

CAUTION:

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Hi DeeAnn,

We are interested in being cooperating agency. Since the proposed project occurs within USACE Omaha District (NWO) Civil Works boundary (408) and USACE Rock Island District (MVR) Regulatory boundary, I am coordinating with Matt Zehr at MVR on this. Matt Zehr will assign a MVR Regulatory PM and we should set up a preapplication meeting with IADOT, NWO 408 and MVR Regulatory to understand responsibilities.

For NWO, I have assigned Reference # 408-NWO-2024-0020.

Let me know if you have any questions.

Thank you,

Adam Nebel
Section 408 Coordinator & Program Manager
U.S. Army Corps of Engineers - Omaha District
Planning Branch, CENWO-PMA-A
1616 Capitol Avenue
Omaha, NE 68102
(402) 995-2068
<https://www.nwo.usace.army.mil/Missions/Civil-Works/Section-408/>

From: Newell, Deeann <DeeAnn.Newell@iowadot.us>

Sent: Friday, March 15, 2024 1:00 PM

To: Nebel, Adam R CIV USARMY CENWO (USA) <Adam.R.Nebel@usace.army.mil>

Cc: Poole, Angela <Angela.Poole@iowadot.us>; MICHAEL LaPietra <Mike.LaPietra@dot.gov>

Subject: [Non-DoD Source] RE: Invitation to Become a Cooperating Agency and Participating Agency

Adam,

See the attached the two previous coordination letters sent to the USACE. Coordination letters were sent to Rock Island District Regulatory in 2019 and 2023.

Thanks

DeeAnn

From: Nebel, Adam R CIV USARMY CENWO (USA) <Adam.R.Nebel@usace.army.mil>

Sent: Friday, March 15, 2024 12:38 PM

To: Newell, Deeann <DeeAnn.Newell@iowadot.us>

Cc: Poole, Angela <Angela.Poole@iowadot.us>; MICHAEL LaPietra <Mike.LaPietra@dot.gov>

Subject: RE: Invitation to Become a Cooperating Agency and Participating Agency

CAUTION:

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Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello, DeeAnn,

Thanks for the email. The letter mentions a Previous Coordination Package Enclosure, but I do not find it. Can you send that?

Also, have you sent a letter to USACE MVR Rock Island District Regulatory?

Adam Nebel

Section 408 Program Manager

U.S. Army Corps of Engineers - Omaha District

(402) 995-2068

From: Newell, Deeann <DeeAnn.Newell@iowadot.us>

Sent: Friday, March 15, 2024 12:25 PM

To: Nebel, Adam R CIV USARMY CENWO (USA) <Adam.R.Nebel@usace.army.mil>

Cc: Poole, Angela <Angela.Poole@iowadot.us>; MICHAEL LaPietra <Mike.LaPietra@dot.gov>

Subject: [Non-DoD Source] Invitation to Become a Cooperating Agency and Participating Agency

Adam,

The attached letter is an invitation to become a Cooperating Agency and Participating Agency for the following project:

County : Woodbury
Project Code : 19-97-012-010
Phase Number : NHS-012-1(37)--19-97
Location : Gordon Dr Viaduct, Rustin St to Virginia St in Sioux City

Thank you
DeeAnn Newell

DeeAnn L. Newell
NEPA Team Lead
Location and Environment
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa, 50010
515-239-1364
DeeAnn.Newell@iowadot.us
iowadot.gov



Newell, Deeann

From: Newell, Deeann
Sent: Wednesday, May 15, 2019 1:44 PM
To: scott.tener@faa.gov; beth.freeman@fema.dhs.gov; steven.fender@dot.gov; mark.bechtel@dot.gov; christine.schwake@dnr.iowa.gov; seth.moore@dnr.iowa.gov; kathleen.moench@dnr.iowa.gov; Tokey_Boswell@nps.gov; steve.king@iowa.gov; Albert.J.Frohlich@usace.army.mil; kayla.a.eckert@usace.army.mil; Eric.Washburn@uscg.mil; kurt.simon@ia.usda.gov; IA_Webmanager@hud.gov; KS_Webmanager@hud.gov; Courtney_Hoover@ios.doi.gov; summerlin.joe@epa.gov; Heidi_Woeber@fws.gov; brooke_stansberry@fws.gov; Bradley, Bryan; jhanson@sioux-city.gov; gmenard@sioux-city.org; City Sioux City; msalvatore@sioux-city.org; Woodbury County [County Engineer]; rschneider@WoodburyCountyIowa.gov; bstehr@WoodburyCountyIowa.gov; christine.evans@ia.usda.gov; chamber@siouxlandchamber.com; doug.chafa@dnr.iowa.gov; mark.gulick@dnr.iowa.gov
Cc: Mike.LaPietra@dot.gov; Nicholson, Tamara; Hofer, Brad; Bradley, Bryan; Schultz, Dakin; Lazarowicz, Tony
Subject: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment
Attachments: GordonDrive_Project Description.pdf; Fig1.pdf

County: Woodbury
Project Number: NHS-0
Location: Gordon Dr Via

Dear Recipient,

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration, in cooperation with the Iowa Department of Transportation, is initiating the preparation of an environmental assessment (EA) for Gordon Drive Viaduct, Sioux City, Iowa.

The project involves the reconstruction of a segment of Gordon Drive that includes the existing Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard, west to approximately Virginia Street. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. The study area is bound by 6th Street to the north, South Fairmount Street to the east, Missouri River/intersection of South Louis Boulevard and Cunningham Drive to the south, and Virginia Street to the west (see attached project location map).

As a part of early coordination, we are soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise. The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate.

The enclosed information should help you understand the nature of the project and help you determine the location of the proposed roadway improvement. To remain on schedule a response would be appreciated within 30 days of receipt of this letter. If you have any questions about the project please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Sincerely,

DeeAnn L. Newell



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description

Figure 1: Project Limits

cc:

Mike LaPietra, FHWA

Tamara Nicholson, IA DOT

Brad Hofer, IA DOT

Bryan Bradley, IA DOT

Tony Lazarowicz, IA DOT

Dakin Schultz, IA DOT

PROJECT DESCRIPTION

The Iowa Department of Transportation (Iowa DOT) proposes to reconstruct a segment of Gordon Drive that includes the existing Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard, west to approximately Virginia Street. The Gordon Drive Viaduct was originally constructed in 1936 and crosses over the Floyd River and Bacon Creek. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. The study area encompasses nearly 900 acres and is bound by 6th Street to the north, South Fairmount Street to the east, Missouri River/intersection of South Louis Boulevard and Cunningham Drive to the south, and Virginia Street to the west (see attached project location map).

An Environmental Assessment (EA) will be prepared for the proposed project. An EA is a National Environmental Policy Act (NEPA) document that is required in the preliminary stages of the planning process. The EA is a written record of the analysis of potential impacts to the environment resulting from the proposed project and is prepared for projects for which the potential for significant impacts is unclear. Impacts to both the natural and socioeconomic environment are evaluated.

ANTICIPATED IMPACTS

A wide spectrum of resources will be evaluated including wetlands, threatened and endangered species, cultural resources, contaminated and regulated material sites, floodplains, impacts on homes and businesses, socioeconomic resources, noise and air quality. Impacts may vary depending on the elements of the final design.

As part of the proposed project, existing right-of-way will be used whenever practical although additional right-of-way may be required to accommodate the proposed reconstruction. Precise right-of-way impacts, as well as potential impacts resulting from noise levels, air quality, cultural resources and natural resources, parks or recreation facilities and the natural environment, will be determined as planning and design activities continue.

DEVELOPMENT PROCEDURES

This project is being developed for federal funding participation. A determination by the Iowa DOT and the Federal Highway Administration has identified this project as requiring preparation of an EA.

Current regulations governing development of federally funded highway improvements require early coordination with units of government who may have interests in the project or its potential impacts. This is intended to provide early notification of the proposed project and to solicit comments regarding the potential impacts of such an action. Several federal, state and local agencies will also be contacted directly to request their early input as part of the project impact identification process.

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Name	JobTitle	Agency	Address1	Address2	City	State	PostalCode	email
Scott Tener	Environmental Protection Specialist	Federal Aviation Administration	Airports Division, ACE-611F	901 Locust Street	Kansas City	MO	64106-2325	scott.tener@faa.gov
Beth Freeman	50319-003468102-4226	Federal Emergency Management Agency	9221 Ward Parkway	Suite 300	Kansas City	MO	64114-3372	beth.freeman@fema.dhs.gov
Steven Fender	Deputy Regional Administrator	Federal Railroad Administration	901 Locust Street	Suite 464	Kansas City	MO	64106	steven.fender@dot.gov
Mark Bechtel	Planning and Program Development Team Leader	Federal Transit Administration, Region VII	901 Locust Street	Suite 404	Kansas City	MO	64106	mark.becht@dot.gov
Christine Schwake	Environmental Services Division	Iowa Department of Natural Resources	502 East 9th Street		Des Moines	IA	50319-0034	christine.schwake@dnr.iowa.gov
Seth Moore	Conservation and Recreation Division	Iowa Department of Natural Resources	502 East 9th Street		Des Moines	IA	50319-0034	seth.moore@dnr.iowa.gov
Kathleen Moench	Section 6(f) Funds Coordinator	Iowa Department of Natural Resources	502 East 9th Street		Des Moines	IA	50319	kathleen.moench@dnr.iowa.gov
Tokey Boswell	Environmental Protection Specialist	National Park Service	Planning and Compliance Office	601 Riverfront Drive	Omaha	NE	68102-4226	Tokey_Boswell@nps.gov
Steve King ²	Administrator, Deputy SHPO	State Historic Preservation Office	Department of Cultural Affairs	600 East Locust	Des Moines	IA	50319	steve.king@iowa.gov
District Engineer ³		U.S. Army Corps of Engineers	Rock Island District	Clock Tower Building	Rock Island	IL	61201	Albert.J.Frohlich@usace.army.mil
Kayla Echert-Uptmor	Omaha District Planning Division	U.S. Army Corps of Engineers	Attention: CENWO-PM-A	1615 Capitol Ave., Ste 9000	Omaha	NE	68102-4925	kayla.a.eckert@usace.army.mil
Martha Chieply	Omaha District Regulatory Division	U.S. Army Corps of Engineers	Attention: CENWO-OD-R	1616 Capitol Ave., Ste 9000	Omaha	NE	68102-4926	martha.s.chieply@usace.army.mil
Eric A. Washburn	Commander (dwb)	U.S. Coast Guard	Eighth Coast Guard District	1222 Spruce Street	St. Louis	MO	63103	Eric.Washburn@uscg.mil
Kurt Simon	State Conservationist	U.S. Department of Agriculture	Natural Resources Conservation Service	210 Walnut Street	Des Moines	IA	50309	kurt.simon@ia.usda.gov
Steven Eggleston ⁴	Supervisory Project Manager	U.S. Department of Housing and Urban Development	210 Walnut Street	Room 239	Des Moines	IA	50309-4015	IA_Webmanager@hud.gov
Jason Mohr ⁴	HUD Regional Office	U.S. Department of Housing and Urban Development	400 State Avenue	Gateway Tower II	Kansas City	KS	66101-2406	KS_Webmanager@hud.gov
Courtney Hoover	Office of Environmental Policy and Compliance, Regional Office	U.S. Department of Interior		P.O. Box 25007 (D-108)	Denver	CO	80225	Courtney_Hoover@ios.doi.gov
Joe Summerlin	National Environmental Policy Act Team	U.S. Environmental Protection Agency	11201 Renner Boulevard		Lenexa	KS	66219	summerlin.joe@epa.gov
Heidi Woeber	Assistant Field Supervisor	U.S. Fish and Wildlife Service	1511 47th Avenue		Moline	IL	61265	Heidi_Woeber@fws.gov
Brooke Stansberry	Fish and Wildlife Biologist	U.S. Fish and Wildlife Service	9325 South Alda Rd.		Wood River	NE	68883	brooke_stansberry@fws.gov
Bryan Bradley	Transportation Engineer Specialist	Iowa Department of Transportation	800 Lincoln Way		Ames	IA	50010	bryan.bradley@iowadot.us
Victoria Rutson	Director, Office of Environmental Analysis	Surface Transportation Board	395 E Street, SW		Washington	DC	20423	Vicki.Rutson@stb.gov
Jeffrey W. Hanson	Community Development Operations Manager	City of Sioux City Planning & Zoning	405 6th Street	PO Box 447	Sioux City	IA	51102	jhanson@sioux-city.gov
Bob Scott	Mayor	City of Sioux City, Mayor	PO Box 447		Sioux City	IA	51102	gmenard@sioux-city.org
David P. Carney, P.E.	Public Works Department Director	City of Sioux City, Public Works Director	405 6th Street	Room 409	Sioux City	IA	51102	dcarney@sioux-city.org
Matt Salvatore	Parks and Recreation Director	City of Sioux City, Parks and Recreation Director	401 Gordon Drive	PO Box 447	Sioux City	IA	51102	msalvatore@sioux-city.org
Mark Nahra	County Engineer	Woodbury County	620 Douglas St		Sioux City	IA	51101	mnahra@woodburycountyiowa.gov
Rick Schneider	Director	Woodbury County Conservation Board	4500 Sioux River Road		Sioux City	IA	51109	rschneider@WoodburyCountyIowa.gov
Brian Stehr	Deputy Director	Woodbury County Conservation Board	4500 Sioux River Road		Sioux City	IA	51109	bstehr@WoodburyCountyIowa.gov
Christine Evans	District Conservationist	Woodbury Soil and water Conservation District	204 First Street	Pioneer Mall	Sergeant Bluff	IA	51054	christine.evans@ia.usda.gov
Chris McGowan	President	Siouxland Chamber of Commerce	101 Pierce St		Sioux City	IA	51101	chamber@siouxlandchamber.com
Doug Chafa	Iowa DNR Wildlife Bureau - Missouri River	Iowa Department of Natural Resources, Wildlife Bureau	21914 Park Loop		Onawa	IA	51040	doug.chafa@dnr.iowa.gov
Mark Gulick	Iowa DNR Wildlife Bureau - NW District Supervisor	Iowa Department of Natural Resources, Wildlife Bureau	122 252nd Ave		Spirit Lake	IA	51360	mark.gulick@dnr.iowa.gov

Newell, Deeann

From: Newell, Deeann
Sent: Wednesday, May 15, 2019 1:46 PM
To: martha.s.chieply@usace.army.mil
Cc: Mike.LaPietra@dot.gov; Nicholson, Tamara; Hofer, Brad; Bradley, Bryan; Schultz, Dakin; Lazarowicz, Tony
Subject: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment
Attachments: GordonDrive_Project Description.pdf; Fig1.pdf

Re: Invitation to Become a Cooperating Agency
Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment
County: Woodbury
Project Number: NHS-012-1(37)--19-97

Dear Ms. Chieply:

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Iowa Department of Transportation (Iowa DOT), is initiating the preparation of an Environmental Assessment (EA) for Gordon Drive Viaduct in Woodbury County, Iowa. Find enclosed with this email a description of the proposed project, the transportation problem(s) the project is expected to address, and a map of the project limits.

Because your agency has jurisdiction by law and/or has special expertise with respect to an environmental issue, we are inviting your agency to be a cooperating agency with FHWA in the preparation of the EA for this project. This is in accordance with the Council on Environmental Quality's regulations for implementing the procedural provisions of NEPA (40 CFR 1501.6). As a result of your involvement as a cooperating agency in the preparation of the EA, and after an independent review of the EA to ensure that your comments and suggestions have been addressed, you can expect that this EA will satisfy your NEPA obligations and that you can adopt the document without the need to re-circulate it.

We suggest that the role of your agency in the development of this project should include the following as they relate to your area of expertise:

- 1) Provide meaningful and early input in defining the purpose and need, determining the range of alternatives to be considered, and the methodologies and level of detail required in alternatives analysis.
- 2) Participate in coordination meetings and joint field reviews as appropriate.
- 3) Provide timely review and comment on the EA to reflect your agency's views and concerns on the adequacy of the EA document, alternatives considered, and the anticipated impacts and mitigation.

To either accept or decline this invitation, please respond in writing prior to June 14, 2019. If your agency chooses to decline the invitation, your response should state your reasons for declining. Any federal agency that chooses to decline the invitation must specifically state in its response that it:

- Has no jurisdiction or authority with respect to the project;
- Has no expertise or information relevant to the project; and
- Does not intend to submit comments on the project.

If you have any questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the EA for this project, please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Thank you for your cooperation and interest in this project.

Sincerely,



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description

Figure 1: Project Limits

Newell, Deeann

From: Moench, Kathleen <kathleen.moench@dnr.iowa.gov>
Sent: Wednesday, May 15, 2019 3:18 PM
To: Newell, Deeann
Subject: Re: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment

Deeann,

After review of the proposed improvement project, I've found no recreational projects that will be impacted. Thank you. Kathleen



Kathleen Moench | Executive Officer
Iowa Department of Natural Resources
P 515-725-8213 | F 515-725-0384 | 502 E. 9th St., Des Moines, IA 50319
www.iowadnr.gov

On Wed, May 15, 2019 at 1:44 PM Newell, Deeann <DeeAnn.Newell@iowadot.us> wrote:

County: Woodbury
Project Number: NHS-012-1(37)--19-97
Location: Gordon Dr Viaduct, S Fairmont St to Virginia St in Sioux City

Dear Recipient,

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration, in cooperation with the Iowa Department of Transportation, is initiating the preparation of an environmental assessment (EA) for Gordon Drive Viaduct, Sioux City, Iowa.

The project involves the reconstruction of a segment of Gordon Drive that includes the existing Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard, west to approximately Virginia Street. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. The study area is bound by 6th Street to the north, South Fairmount Street to the east, Missouri River/intersection of South Louis Boulevard and Cunningham Drive to the south, and Virginia Street to the west (see attached project location map).

As a part of early coordination, we are soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise. The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate.

The enclosed information should help you understand the nature of the project and help you determine the location of the proposed roadway improvement. To remain on schedule a response would be appreciated within 30 days of receipt of this letter. If you have any questions about the project please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Sincerely,



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description

Figure 1: Project Limits

CC:

Mike LaPietra, FHWA

Tamara Nicholson, IA DOT

Brad Hofer, IA DOT

Bryan Bradley, IA DOT

Tony Lazarowicz, IA DOT

Dakin Schultz, IA DOT



SURFACE TRANSPORTATION BOARD
Washington, DC 20423

Office of Environmental Analysis

June 7, 2019

DeeAnn L. Newell
Iowa Department of Transportation
Office of Location and Environment
800 Lincoln Way
Ames, Iowa 50010

Re: Gordon Drive Viaduct, Sioux City, Woodbury County, Iowa; **Invitation to STB to Participate as a Cooperating Agency** (Iowa DOT Project Number: NHS-012-1(37)--19-97)

Dear Ms. Newell:

I have received your May 15, 2019, invitation to be a cooperating agency with the Federal Highway Administration and the Iowa Department of Transportation in the preparation of the Environmental Assessment for Gordon Drive Viaduct in Woodbury County, Iowa. Thank you for your invitation. Because it does not appear that the project, as it is currently planned, would require a license from the Surface Transportation Board (STB or Board), I am writing to **decline** your request to participate as a cooperating agency.

The Board exercises jurisdiction over the abandonment, discontinuance, and construction of freight railroads. Construction licensing from the Board typically is required when the proposal involves a change in service to shippers, expansion into new territory, or change in existing competitive situations that would affect the national freight rail network (See *Denver & R.G.W. R. Co. – Jt Proj. –Relocation Over BN, 4 I.C.C.2d 95, 1987*). The proposed project as planned, does not seem to contemplate any changes in service to the freight railroads' shippers, expansion of operations of local railroads into new territory, or alteration of the existing freight rail competitive balance.

If you have any questions or concerns, please feel free to contact Adam Assenza at 202-245-0301 (e-mail address: adam.assenza@stb.gov). Again, thank you for reaching out to us.

Sincerely,

Victoria Rutson
Director
Office of Environmental Analysis

Newell, Deeann

From: Newell, Deeann
Sent: Wednesday, May 15, 2019 1:46 PM
To: Vicki.Rutson@stb.gov
Cc: Mike.LaPietra@dot.gov; Nicholson, Tamara; Hofer, Brad; Bradley, Bryan; Schultz, Dakin; Lazarowicz, Tony
Subject: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment
Attachments: GordonDrive_Project Description.pdf; Fig1.pdf

Re: Invitation to Become a Cooperating Agency
Gordon Drive Viaduct, Sioux City, Iowa – Environmental Assessment
County: Woodbury
Project Number: NHS-012-1(37)--19-97

Dear Ms. Rutson:

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration (FHWA), in cooperation with the Iowa Department of Transportation (Iowa DOT), is initiating the preparation of an Environmental Assessment (EA) for Gordon Drive Viaduct in Woodbury County, Iowa. Find enclosed with this email a description of the proposed project, the transportation problem(s) the project is expected to address, and a map of the project limits.

Because your agency has jurisdiction by law and/or has special expertise with respect to an environmental issue, we are inviting your agency to be a cooperating agency with FHWA in the preparation of the EA for this project. This is in accordance with the Council on Environmental Quality's regulations for implementing the procedural provisions of NEPA (40 CFR 1501.6). As a result of your involvement as a cooperating agency in the preparation of the EA, and after an independent review of the EA to ensure that your comments and suggestions have been addressed, you can expect that this EA will satisfy your NEPA obligations and that you can adopt the document without the need to re-circulate it.

We suggest that the role of your agency in the development of this project should include the following as they relate to your area of expertise:

- 1) Provide meaningful and early input in defining the purpose and need, determining the range of alternatives to be considered, and the methodologies and level of detail required in alternatives analysis.
- 2) Participate in coordination meetings and joint field reviews as appropriate.
- 3) Provide timely review and comment on the EA to reflect your agency's views and concerns on the adequacy of the EA document, alternatives considered, and the anticipated impacts and mitigation.

To either accept or decline this invitation, please respond in writing prior to June 14, 2019. If your agency chooses to decline the invitation, your response should state your reasons for declining. Any federal agency that chooses to decline the invitation must specifically state in its response that it:

- Has no jurisdiction or authority with respect to the project;
- Has no expertise or information relevant to the project; and
- Does not intend to submit comments on the project.

If you have any questions or would like to discuss the project in more detail or our agencies' respective roles and responsibilities during the preparation of the EA for this project, please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Thank you for your cooperation and interest in this project.

Sincerely,



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description

Figure 1: Project Limits

Newell, Deeann

From: Ownby, Dean <Dean.Ownby@fema.dhs.gov>
Sent: Tuesday, May 21, 2019 1:33 PM
To: Newell, Deeann
Cc: Scott, Michael; Sessa, Kenneth; Taylor, Paul
Subject: FW: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment
Attachments: image004.emz; image002.emz; GordonDrive_Project Description.pdf; Fig1.pdf

DeeAnn Newell,

Thank you for your email from earlier today. We would suggest that you obtain a floodplain development permit from Sioux City for those areas of the project that are in the Special Flood Hazard Areas as depicted on the Flood Insurance Rate Map.

Dean M Ownby, CPCU, SCLA
Chief, Floodplain Management & Insurance
FEMA Region VII
Kansas City, MO
816 283 7045
816 810 1845 C

From: Sessa, Kenneth
Sent: Tuesday, May 21, 2019 11:57 AM
To: Ownby, Dean <Dean.Ownby@fema.dhs.gov>
Cc: Scott, Michael <michael.scott@fema.dhs.gov>
Subject: FW: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment

Dean – yours.

From: Taylor, Paul
Sent: Tuesday, May 21, 2019 11:20 AM
To: Scott, Michael <michael.scott@fema.dhs.gov>; Sessa, Kenneth <Kenneth.Sessa@fema.dhs.gov>
Subject: FW: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment

FYI and action

Paul Taylor
Administrator, FEMA Region 7
(816) 283-7054 (office)
(816) 988-6196 (cell)

From: Newell, Deeann [mailto:DeeAnn.Newell@iowadot.us]
Sent: Tuesday, May 21, 2019 8:32 AM
To: dheissel@woodburyparks.org; Taylor, Paul <paul.taylor@fema.dhs.gov>
Subject: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment

County: Woodbury
Project Number: NHS-0
Location: Gordon Dr Via

Dear Recipient,

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration, in cooperation with the Iowa Department of Transportation, is initiating the preparation of an environmental assessment (EA) for Gordon Drive Viaduct, Sioux City, Iowa.

The project involves the reconstruction of a segment of Gordon Drive that includes the existing Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard, west to approximately Virginia Street. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. The study area is bound by 6th Street to the north, South Fairmount Street to the east, Missouri River/intersection of South Louis Boulevard and Cunningham Drive to the south, and Virginia Street to the west (see attached project location map).

As a part of early coordination, we are soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise. The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate.

The enclosed information should help you understand the nature of the project and help you determine the location of the proposed roadway improvement. To remain on schedule a response would be appreciated within 30 days of receipt of this letter. If you have any questions about the project please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Sincerely,



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description

Figure 1: Project Limits

cc:

Mike LaPietra, FHWA

Tamara Nicholson, IA DOT

Brad Hofer, IA DOT

Bryan Bradley, IA DOT



United States Department of the Interior



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

IN REPLY REFER
TO:

FWS/ILIAFO

May 22, 2019

Ms. DeeAnn L. Newell
Iowa Department of Transportation
Office of Location and Environment
800 Lincoln Way
Ames, Iowa 50010

Re: Gordon Drive Viaduct, Sioux City, Woodbury County,
Iowa (NHS-012-1(37)—19-97) – Environmental Assessment

Dear Ms. Newell:

Thank you for contacting us regarding your project. This responds to your May 15, 2019, request for comments regarding the initiation of an environmental assessment (EA) for the proposed Gordon Drive Viaduct, Sioux City, 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. To streamline the environmental review process please visit <https://ecos.fws.gov/ipac/>. 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 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. 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 47th Avenue
Moline, Illinois 61265
309/757-5800 Ext. 209

cc: IADNR (Schwake)
USACE (Frolich)



May 30, 2019

DEEANN NEWELL
IOWA DEPARTMENT OF TRANSPORTATION
800 LINCOLN WAY
AMES IA 50010

Subject: Gordon Drive Viaduct, Sioux City, Woodbury County
Project Number: NHS-012-1(37)—19-97

Dear Ms. Newell:

This letter is in response to your May 15, 2019 email concerning the reconstruction of the Gordon Drive Viaduct. Thank you for inviting my comments.

Waters of the United States (includes wetlands) should not be disturbed if a less environmentally damaging alternative exists. Unavoidable adverse impacts should be minimized to the extent practicable. Any remaining adverse impacts should be compensated for through restoration and creation activities (enhancement and/or preservation may be in addition to the restoration/creation). We would ask that Best Management Practices be used to control erosion and protect water quality near the project.

Any proposed placement of dredged or fill material into waters of the United States (including jurisdictional wetlands) requires Department of the Army Corps of Engineers authorization under Section 404 of the Clean Water Act. When detailed plans are available, please complete and submit an application packet to the Rock Island District Corps of Engineers for processing. An electronic copy of the application form and instructions may also be obtained on the Corps' website: <http://www.mvr.usace.army.mil>. 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 the Corps at 309-794-5057. In addition to sending the application form to the Corps, please send the application form and attachments to the Iowa Department of Natural Resources (Iowa DNR) for the Flood Plain and Sovereign Lands permitting sections. For questions regarding Iowa DNR Flood Plain permits please call (toll free) 866-849-0321. For questions regarding Iowa DNR Sovereign Lands permits please call 515-725-8464.

State of Iowa permits potentially needed for your project:

<http://www.iowadnr.gov/InsideDNR/AboutDNR/BusinessRegulatoryAssistance.aspx>

If you have any questions or comments, please contact me at the address shown below or call (515) 725-8399.

Sincerely,

A handwritten signature in blue ink that reads "Christine M. Schwake". The signature is written in a cursive, flowing style.

Christine M. Schwake
Environmental Specialist, Section 401 Water Quality Certification

502 E 9TH ST, DES MOINES IA 50319

Phone: 515-725-8200

www.iowaDNR.gov

Fax: 515-725-8202

Newell, Deeann

From: Barbara Sloniker <bsloniker@siouxlandchamber.com>
Sent: Thursday, May 30, 2019 11:00 AM
To: Newell, Deeann
Subject: RE: comments on Gordon Drive

Follow Up Flag: Follow up
Flag Status: Flagged

Deann-

Here are my comments on the environmental assessment for the Gordon Drive project behalf of the Siouxland Chamber of Commerce.

The Siouxland Chamber of Commerce has been involved and provided input on the Gordon Drive project since the first study was done in 2001. Gordon Drive is a key arterial for Sioux City and our tri-state metro community. As the Gordon Drive viaduct is nearing the end of its useful life it is important to move this study forward.

The Gordon Drive study area is transportation rich and we would like the final plan to address all modes – pedestrian, vehicular, and railroad. The railroads would currently like to operate double stack cars but are unable to do so now due to the height limitations of the bridge. The cost for the long bridge is very expensive both to construct and to maintain. It seems that there might be a better solution that could relocate the railroads and allow for a shorter length bridge span. This would then allow the railroads to be able to expand their business at a different site, which is good for the local economy. Relocation of the rail and shortening of the bridge would then give way to finding the best and highest use of the valuable real estate.

As with any project we would hope there is much consideration given to minimizing the impact to area businesses and residential units.

Thank you for the opportunity to provide input. We will continue to stay involved as the project moves forward.

Barbara M. Sloniker

Executive Vice President
Siouxland Chamber of Commerce/The Siouxland Initiative
101 Pierce Street
Sioux City, Iowa 51101
712.255.7903 ext. 216
bsloniker@siouxlandchamber.com



NOVEMBER 11 – 19, 2019

[FIND OUT MORE HERE](#)

Newell, Deeann

From: Mark Nahra <mnahra@woodburycountyiowa.gov>
Sent: Wednesday, June 12, 2019 1:32 PM
To: Newell, Deeann
Subject: RE: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment
Attachments: image001.wmz

Deeann:

Thank you for the opportunity to provide comments on the upcoming project to replace the Gordon Drive Viaduct. This road is an important artery for Sioux City residents, including me, as I cross the viaduct many times each week for work and personal trips. That being said, I have nothing to offer in regard to commentary on the project. It does not directly interface with any county extension routes. I wish you success as you proceed through project development for this much needed corridor improvement.

Mark J. Nahra, P.E.
Woodbury County Engineer
759 E. Frontage Road
Merville, IA 51039
Phone: 712-873-3215 or 712-279-6484
Fax: 712-873-3235
Email: mnahra@woodburycountyiowa.gov

From: Newell, Deeann [mailto:DeeAnn.Newell@iowadot.us]
Sent: Wednesday, May 15, 2019 1:44 PM
To: scott.tener@faa.gov; beth.freeman@fema.dhs.gov; steven.fender@dot.gov; mark.bechtel@dot.gov; christine.schwake@dnr.iowa.gov; seth.moore@dnr.iowa.gov; kathleen.moench@dnr.iowa.gov; Tokey_Boswell@nps.gov; steve.king@iowa.gov; Albert.J.Frohlich@usace.army.mil; kayla.a.eckert@usace.army.mil; Eric.Washburn@uscg.mil; kurt.simon@ia.usda.gov; IA_Webmanager@hud.gov; KS_Webmanager@hud.gov; Courtney_Hoover@ios.doi.gov; summerlin.joe@epa.gov; Heidi_Woeber@fws.gov; brooke_stansberry@fws.gov; Bradley, Bryan <bryan.bradley@iowadot.us>; jhanson@sioux-city.gov; Gabrielle Menard <gmenard@sioux-city.org>; David Carney <dcarney@sioux-city.org>; Matthew Salvatore <msalvatore@sioux-city.org>; Mark Nahra <mnahra@woodburycountyiowa.gov>; rschneider@WoodburyCountyIowa.gov; Brian Stehr <bstehr@woodburyparks.org>; christine.evans@ia.usda.gov; chamber@siouxlandchamber.com; doug.chafa@dnr.iowa.gov; mark.gulick@dnr.iowa.gov
Cc: MICHAEL LaPietra <Mike.LaPietra@dot.gov>; Nicholson, Tamara <Tamara.Nicholson@iowadot.us>; Hofer, Brad <Brad.Hofer@iowadot.us>; Bradley, Bryan <bryan.bradley@iowadot.us>; Schultz, Dakin <Dakin.Schultz@iowadot.us>; Lazarowicz, Tony <Tony.Lazarowicz@iowadot.us>
Subject: Gordon Drive Viaduct, Sioux City, Iowa - Environmental Assessment

County: Woodbury
Project Number: NHS-0
Location: Gordon Dr Via

Dear Recipient,

For the purpose of complying with the National Environmental Policy Act (NEPA), the Federal Highway Administration, in cooperation with the Iowa Department of Transportation, is initiating the preparation of an environmental assessment (EA) for Gordon Drive Viaduct, Sioux City, Iowa.

The project involves the reconstruction of a segment of Gordon Drive that includes the existing Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard, west to approximately Virginia Street. The concepts to be considered will include opportunities to reduce the Gordon Drive bridge length, which will involve consideration of railroad operations. The study area is bound by 6th Street to the north, South Fairmount Street to the east, Missouri River/intersection of South Louis Boulevard and Cunningham Drive to the south, and Virginia Street to the west (see attached project location map).

As a part of early coordination, we are soliciting comments from your agency regarding the proposed project as it relates to your agency's area of expertise. The comments and material you supply will be used to determine if the proposed improvements may have impacts that warrant further consideration and are consistent with future long-term development plans within the study corridor. Your comments will be incorporated into the environmental planning process and Environmental Assessment document as appropriate.

The enclosed information should help you understand the nature of the project and help you determine the location of the proposed roadway improvement. To remain on schedule a response would be appreciated within 30 days of receipt of this letter. If you have any questions about the project please contact DeeAnn Newell at 515-239-1364 or by email at deeann.newell@iowadot.us.

Sincerely,



DeeAnn L. Newell

Iowa Department of Transportation | Office of Location and Environment
800 Lincoln Way | Ames, Iowa 50010
Phone: 515-239-1364 | Email: DeeAnn.Newell@iowadot.us

Enclosures:

Project Description
Figure 1: Project Limits

cc:

Mike LaPietra, FHWA
Tamara Nicholson, IA DOT
Brad Hofer, IA DOT
Bryan Bradley, IA DOT
Tony Lazarowicz, IA DOT
Dakin Schultz, IA DOT

Newell, Deeann

From: Summerlin, Joe <summerlin.joe@epa.gov>
Sent: Thursday, June 13, 2019 6:45 AM
To: Newell, Deeann
Cc: Schafer, Jeannette; Gaggero, Jaime; Tapp, Joshua
Subject: Scoping for Gordon Viaduct

Ms. Newell:

Thank you contacting the US Environmental Protection Agency in reference to scoping for the Gordon Viaduct Project in Sioux City, IA.

The EPA recommends avoiding and minimizing impacts to wetlands and streams as much as possible before determining the amount of compensatory mitigation that is required. If mitigation is needed, the EPA recommends that mitigation preferably occur in a mitigation bank, otherwise in the same HUC 8 or smaller watershed as the location of the project impacts, and follow the Corps' stream mitigation guidelines for Iowa.

Information may be generated through the 404 public interest review process that may not be documented during the EA/EIS process and should be considered in the final decision. This could include changes in regulation or processes, advances in the knowledge of the resources to be impacted, discovery of additional populations of threatened or endangered species, new best management practices, and/or improvement in stream or wetland restoration science.

If the impacts exceed those outlined by a CWA Section 404 Nationwide Permit, the EPA recommends early coordination with EPA Region 7's CWA Section 404 Program through the Section 404 Pre-Application process. For further assistance on Section 404 please contact: Jeannette Schafer by phone (913) 551-7297 or via email at schafer.jeannette@epa.gov.

If you have any NEPA questions or concerns please contact me at (913) 551-7029 or via email at summerlin.joe@epa.gov.

Sincerely,

Joe Summerlin
NEPA Project Manager
Office of Intergovernmental Affairs
EPA Region 7

July 29, 2019

Iowa DOT Project: NHS-12-1(37)--19-97

Iowa SHPO R&C: _____

Ms. Sara André and Mr. Daniel Higginbottom
State Historic Preservation Office
600 East Locust
Des Moines, IA 50319

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Early Coordination, Sioux City, Woodbury County, Iowa

Dear Sara and Dan,

Consultation works best when it starts early. This is an initiation letter for the purpose of early consultation for the above referenced project. This project proposes to reconstruct a segment of Gordon Drive (a.k.a. Iowa Highway 12/f.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The concepts include reducing the length of the Viaduct and possible railroad reconfiguration. Its unknown at this time how much right-of-way will be needed. See the enclosed maps for details. As the study area develops we anticipate some field survey and potential deep geoarchaeological testing, if you have questions about this survey or would like to join us the field, please let us know. At this early juncture [36 CFR 800.1(a)], no Area of Potential Effects has been defined for this proposed project.

The Gordon Drive Viaduct was subject to major rehabilitation and mitigation in 2007. To see that cultural resources mitigation effort visit the following URL:

<https://iowadot.gov/ole/documents/SiouxCitysGrandAvenueViaduct.pdf>

Or word search "Sioux City's Grand Avenue Viaduct"

Tribes: As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe [36 CFR 800.2(c)(2)(ii)].

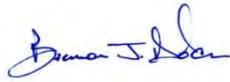
Interested Parties: As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any historic properties [36 CFR 800.2(c)(3)].

SHPO: As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any historic properties [36 CFR 800.2(c)(1)]. Also, should your office issue a Review and Compliance number for this project, please forward it on to us.

Your timely response will greatly assist us in incorporating your concerns into project development. For that purpose, we respectfully request that you respond within 30-days of your receipt of this correspondence.

Please feel free to call me at (515) 239-1795 or email me at brennan.dolan@iowadot.us if you have any questions. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,



Brennan Dolan
Cultural Resources Manager/Archaeologist

Cc:

Tribal Consulting Parties – Woodbury County Interest
Tony Lazarowicz – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Bryan Bradley – Location Engineer
DeeAnn Newell – NEPA Team Lead

From: [Higginbottom, Daniel](#)
To: [Dolan, Brennan](#); [Sara Andre](#); [Heather Gibb](#); [Unknown Unknown](#)
Subject: 190897006-FHWA-Woodbury-Sioux City-NHS-12-1(37)--19-97 - Reconstruction of Gordon Drive/Grand Avenue Viaduct - 97-02775- FHWA 052830-Coordination letter
Date: Wednesday, August 07, 2019 9:29:51 AM

August 7, 2019

190897006-FHWA-Woodbury-Sioux City-NHS-12-1(37)--19-97 - Reconstruction of Gordon Drive/Grand Avenue Viaduct - 97-02775- FHWA 052830-Coordination letter

Brennan-

We have received your July 29, 2019 early coordination letter for the Gordon Drive/Grand Avenue viaduct reconstruction project in Sioux City, Woodbury County.

Thank you for providing our office with early notification. As the project is in the early stages of planning, we have no immediate concerns. However, given the size of the study area and pronounced archaeological and historic property potential within that area, we anticipate more focused review as detailed plans materialize.

The Iowa SHPO has started a case file for this project under R & C number 190897006.

--

Daniel K. Higginbottom, Archaeologist
Iowa State Historic Preservation Office
State Historical Society of Iowa
600 E Locust
Des Moines, Iowa 50319-0290

July 29, 2019

Iowa DOT Project: NHS-12-1(37)--19-97

Mr. Garrie KILLSAHUNDRED, THPO
Flandreau Santee Sioux
P.O. Box 283
Flandreau, SD 57028

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Early Coordination, Sioux City, Woodbury County, Iowa

Dear Garrie,

Consultation works best when it starts early. This is an initiation letter for the purpose of early consultation for the above referenced project. This project proposes to reconstruct a segment of Gordon Drive (a.k.a. Iowa Highway 12/f.k.a. Grand Avenue Viaduct) that includes the Gordon Drive Viaduct and the interchange of Gordon Drive and Lewis Boulevard. The concepts include reducing the length of the Viaduct and possible railroad reconfiguration. It is unknown at this time how much right-of-way will be needed. See the enclosed maps for details. As the study area develops we anticipate some field survey and potential deep geoarchaeological testing, if you have questions about this survey or would like to join us in the field, please let us know. At this early juncture [36 CFR 800.1(a)], no Area of Potential Effects has been defined for this proposed project. As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe. The enclosed figures are intended to supplement your review of this undertaking by helping describe what has been found. As always if you would like additional information about this project just let me know.

The Gordon Drive Viaduct was subject to major rehabilitation and mitigation in 2007. To see that cultural resources mitigation effort visit the following URL:

<https://iowadot.gov/ole/documents/SiouxCitysGrandAvenueViaduct.pdf>

Or word search "Sioux City's Grand Avenue Viaduct"

Enclosed with this package is a postage-paid notification form that you may use, if you wish, to return comments about the project. Please feel free to call me at (515) 239-1795 or email me at brennan.dolan@dot.iowa.gov if you have any questions. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,



Brennan Dolan
Cultural Resources Manager/Archaeologist

Pawnee Nation of Oklahoma

Tuesday, August 27, 2019

Brennan Dolan
Cultural Resources Manager/Archaeologist
Iowa Department of Transportation
800 Lincoln Way
Ames, Iowa 50010

**RE: Section 106 Consultation and Review on:
Reconstruction of Gordon Drive/Grand Avenue Viaduct
97-02775
FHWA #052830
Sioux City, Woodbury County, Iowa**

Dear Mr. Dolan,

The Pawnee Nation Office of Historic Preservation has received the information and materials requested for our Section 106 Review and Consultation. Consultation with the Pawnee Nation is required by Section 106 of the National Historic Preservation Act of 1966 (NHPA), and 36 CFR Part 800.

Given the information provided, you are hereby notified that the proposed project/s will not adversely affect the cultural landscape of the Pawnee Nation. Therefore, in accordance with 36 CFR 800.4(d) (1), you may proceed with your proposed projects. **However, please be advised that additional undiscovered properties could be encountered, and they must be immediately reported to us under both the NHPA and NAGPRA regulations.**

This information is provided to assist you in complying with 36 CFR Part 800 for Section 106 Consultation procedures. Should you have questions, please do not hesitate to contact me at jreed@pawneenation.org or by phone at 918-762-2180 ext 220. Thank you for your time and consideration.

Sincerely,
Matt Reed
Historic Preservation Officer
Pawnee Nation of Oklahoma

Historic Preservation Office
Matt Reed
Phone: 918.762.2180 Fax: 918.762.3662
E-mail: jreed@pawneenation.org
P.O. Box 470
Pawnee, Oklahoma 74058

June 24, 2021

Iowa DOT Project: NHS-12-1(37)--19-97
 Iowa SHPO R&C: 20190897006

Ms. Sara André
 State Historic Preservation Office
 600 East Locust
 Des Moines, IA 50319

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Intensive Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Sara,

As you may recall we began early consultation on this project back in 2019. Since that time the scope of the project has continued to evolve, and we have now come to the intensive architectural survey milestone. We expect to complete some intensive archaeological survey over the coming months. As design continues, we are nearing a determination that the Gordon Drive/Grand Avenue viaduct will need to be replaced. We hosted a public information meeting for this project in April of 2021, information from that meeting can be found by visiting the following URL:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

Enclosed for your review and comment is the intensive architectural evaluation. The current scope of the project includes not only addressing the issues that relate to the viaduct but also potential replacement of the Bacon Creek conduit (see ISIFs for 97-06090, 97-06091, 97-06092). As the condition of this structure is poor now is the time to address this related aspect of the project. As you know some related areas have been studied previously (I-29; Grand Ave), and the current study fills in the gaps that relate to the Iowa 12/Gordon Drive/US 75 interchange. 144 properties were included in the study area, of which 114 were historic in age. Table 1 below identifies the properties identified as eligible or potentially eligible. Our consultant has recommended these 16 properties eligible or potentially eligible for nomination to the National Register of Historic Places, we agree with these recommendations. We now request your concurrence with the findings of this investigation.

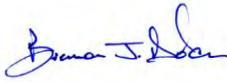
Table 1 – Eligible Structures

Site Inventory	Address	Notes	NRHP Status
97-00066	2922 Correctionville Rd	Residence	Eligible
97-00067	3000 Correctionville Rd	Residence	Eligible
97-00091	2715 Correctionville Rd	Hacker, Anton House	Potentially Eligible
97-00244	2512 1 st St	Residence	Potentially Eligible
97-00245	2606 1 st St	Residence	Potentially Eligible
97-00286	2625 1 st St	Residence	Potentially Eligible
97-02496	1804 Dace Ave	Swift & Co. Produce Plant	Eligible
97-02775	Gordon Dr	Grand Ave Viaduct	Eligible
97-03217	1951 Leech Ave	Swift & Co. Admin. Building	Eligible
97-06053	212 S Helen St	Residence	Eligible
97-06066	1919 Grand Ave	Kay Dee Feed Co.	Potentially Eligible
97-06073	2400 Leech Ave	Wilson Trailer Co.	Eligible
97-06078	2610 Gordon Dr	Tastee Inn & Out	Eligible
97-06079	2613 Dace Ave	Residence	Potentially Eligible
97-06087	Old Floyd River Channel	Floyd River Flood Control Channel	Eligible
97-06090	Gordon Drive	Bacon Creek Conduit (original)	Eligible

Obviously at this time it is too early to speculate on our project determination of effect, and as we continue to work through the process, we will keep your office and other stakeholders involved. We will continue to consult with the Sioux City Historic Preservation Commission as well as the Sioux City Public Museum, per 36CFR800.3(f) we are requesting your input regarding other potential consulting parties. 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 Location and Environment Bureau shall be contacted immediately.

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

Sincerely,



Brennan J. Dolan, RPA 18023
Cultural Resources Manager/Archaeologist

Cc: Johnathan Vodochosy – Sioux City Historic Preservation Commission
Steve Hansen – Sioux City Public Museum
Tony Lazarowicz – District 3 Engineer
Shane Tymkowicz – Assistant District 3 Engineer
Gary Harris – Location Engineer
DeeAnn Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur: _____ Date: _____
SHPO Historian

Comments:

From: noreply@salesforce.com on behalf of [Sara Andre](#)
To: [Dolan, Brennan](#)
Cc: heather.gibb@iowa.gov; dan.higginbottom@iowa.gov; penny.wilcoxson@iowa.gov; shpo106@iowa.gov
Subject: R&C 190897006 - FHWA - Woodbury - Reconstruction of Gordon Drive/Grand Avenue Viaduct - 144 properties in study area; 114 historic in age; 16 eligible
Date: Wednesday, August 11, 2021 12:02:07 PM

We have received your submittal for the above referenced federal undertaking. We provide the following response in accordance with Section 106 of the National Historic Preservation Act of 1966 and its implementing regulations 36 CFR 800.

Regarding this project, please see the following comments:

R&C 190897006 - FHWA - Woodbury - Reconstruction of Gordon Drive/Grand Avenue Viaduct - 144 properties in study area; 114 historic in age; 16 eligible

- Thank you for the submission of the Iowa Site Inventory forms for the above-noted project. As an update, the forms are currently under review. As this is not a complete project submission with an effects determination, the 30-day review period is not required. However, within the confines of project load and these numerous forms, we will do our best to have a response regarding the properties in a timely manner.
- When the archaeological component is complete and the project is defined, please submit further information.

You will not receive a hard copy of this email. It is the submitter's responsibility to maintain the official file of record. If you have any questions or comments, please feel free to contact our office.

Kind regards,

Sara André
Architectural Historian
State Historic Preservation Office
sara.andre@iowa.gov | 515-242-6157 | iowaculture.gov

Iowa Arts Council | Produce Iowa | State Historical Society of Iowa

Iowa Department of Cultural Affairs 

June 28, 2021

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: 20190897006

Mr. Johnathan Vodochodsky
Sioux City Historic Preservation Commission - Chair
(Electronic Only)
Sioux City, IA 501102

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Intensive Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Vodochodsky,

At this time, we are inquiring as to whether your organization wishes to act as a consulting party to the Section 106 process for the above referenced project. If you wish to do so we ask that you respond in writing within the next 30-days. As you may know the Iowa DOT and the City of Sioux City have been studying the Gordon Drive project. The project has continued to evolve, and now includes the Bacon Creek Conduit near Gordon Drive. We have now come to the intensive architectural survey milestone. As you may know we hosted a public information meeting for this project in April of 2021, information from that meeting can be found by visiting the following URL:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

Attached is a copy of the Advisory Council in Historic Preservation's *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* to aid in providing context for the process the Iowa DOT and FHWA follow. I will also be forwarding along an FTP link where you can download the recently completed intensive architectural evaluation of the study area.

The current scope of the project includes not only addressing the issues that relate to the viaduct but also potential replacement of the Bacon Creek conduit (see ISIFs for 97-06090, 97-06091, 97-06092). As the condition of this structure is poor now is the time to address this related aspect of the project. As you may know some related areas have been studied previously (I-29; Grand Ave), and the current study fills in the gaps that relate to the Iowa 12/Gordon Drive/US 75 interchange. 144 properties were included in the study area, of which 114 were historic in age. Table 1 below identifies the properties identified as eligible or potentially eligible. Our consultant has recommended these 16 properties eligible or potentially eligible for nomination to the National Register of Historic Places, we agree with these recommendations.

Table 1 – Eligible Structures

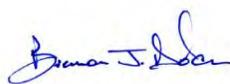
Site Inventory	Address	Notes	NRHP Status
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97-00067	3000 Correctionville Rd	Residence	Eligible
97-00091	2715 Correctionville Rd	Hacker, Anton House	Potentially Eligible
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97-06079	2613 Dace Ave	Residence	Potentially Eligible
97-06087	Old Floyd River Channel	Floyd River Flood Control Channel	Eligible
97-06090	Gordon Drive	Bacon Creek Conduit (original)	Eligible

Obviously at this time it is too early to speculate on our project determination of effect, and as we continue to work through the process, we will keep the Iowa SHPO and other stakeholders involved.

At this time, we are asking for input from your commission regarding this survey, these historic properties and any other properties you are aware of within or near this project. If you have any questions about the 106 process, please feel free to contact me. 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 Location and Environment Bureau shall be contacted immediately.

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

Sincerely,



Brennan J. Dolan, RPA 18023
 Cultural Resources Manager/Archaeologist

Cc: Larissa Carroll – Sioux City Historic Preservation Commission
 Steve Hansen – Sioux City Public Museum
 Sara André – State Historic Preservation Office
 Tony Lazarowicz – District 3 Engineer
 Shane Tymkowicz – Assistant District 3 Engineer
 Gary Harris – Location Engineer
 DeeAnn Newell – NEPA Team Lead
 Leah Rogers – Tallgrass Archaeology
 Brian Goss/Paul Knievel – HDR

June 28, 2021

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: 20190897006

Mr. Steven Hansen
Sioux City Public Muesum – Director
607 4th Street
Sioux City, IA 51101

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Intensive Architectural Survey; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Mr. Hansen,

At this time, we are inquiring as to whether your organization wishes to act as a consulting party to the Section 106 process for the above referenced project. If you wish to do so we ask that you respond in writing within the next 30-days. As you may know the Iowa DOT and the City of Sioux City have been studying the Gordon Drive project. The project has continued to evolve, and now includes the Bacon Creek Conduit near Gordon Drive. We have now come to the intensive architectural survey milestone (available for download – ask for FTP link). As you may know we hosted a public information meeting for this project in April of 2021, information from that meeting can be found by visiting the following URL:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

Attached is a copy of the Advisory Council in Historic Preservation's *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* to aid in providing context for the process the Iowa DOT and FHWA follow. I can also provide an FTP link where you can download the recently completed intensive architectural evaluation of the study area.

The current scope of the project includes not only addressing the issues that relate to the viaduct but also potential replacement of the Bacon Creek conduit (see ISIFs for 97-06090, 97-06091, 97-06092). As the condition of this structure is poor now is the time to address this related aspect of the project. As you may know some related areas have been studied previously (I-29; Grand Ave), and the current study fills in the gaps that relate to the Iowa 12/Gordon Drive/US 75 interchange. 144 properties were included in the study area, of which 114 were historic in age. Table 1 below identifies the properties identified as eligible or potentially eligible. Our consultant has recommended these 16 properties eligible or potentially eligible for nomination to the National Register of Historic Places, we agree with these recommendations.

Table 1 – Eligible Structures

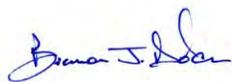
Site Inventory	Address	Notes	NRHP Status
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97-00091	2715 Correctionville Rd	Hacker, Anton House	Potentially Eligible
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97-00286	2625 1 st St	Residence	Potentially Eligible
97-02496	1804 Dace Ave	Swift & Co. Produce Plant	Eligible
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97-03217	1951 Leech Ave	Swift & Co. Admin. Building	Eligible
97-06053	212 S Helen St	Residence	Eligible
97-06066	1919 Grand Ave	Kay Dee Feed Co.	Potentially Eligible
97-06073	2400 Leech Ave	Wilson Trailer Co.	Eligible
97-06078	2610 Gordon Dr	Tastee Inn & Out	Eligible
97-06079	2613 Dace Ave	Residence	Potentially Eligible
97-06087	Old Floyd River Channel	Floyd River Flood Control Channel	Eligible
97-06090	Gordon Drive	Bacon Creek Conduit (original)	Eligible

Obviously at this time it is too early to speculate on our project determination of effect, and as we continue to work through the process, we will keep the Iowa SHPO and other stakeholders involved.

At this time, we are asking for input from your organization regarding this survey, these historic properties and any other properties you are aware of within or near this project. If you have any questions about the 106 process, please feel free to contact me. 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 Location and Environment Bureau shall be contacted immediately.

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

Sincerely,



Brennan J. Dolan, RPA 18023
 Cultural Resources Manager/Archaeologist

Cc:

Johnathan Vodochodsky – Sioux City Historic Preservation Commission
 Sara André – State Historic Preservation Office
 Tony Lazarowicz – District 3 Engineer
 Shane Tymkowicz – Assistant District 3 Engineer
 Gary Harris – Location Engineer
 DeeAnn Newell – NEPA Team Lead
 Leah Rogers – Tallgrass Archaeology

July 25, 2022

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: [20190897006](#)

Mr. Dan Higginbottom
State Historic Preservation Office
600 East Locust
Des Moines, IA 50319

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Phase I Intensive Archeological Investigation; Sioux City, Woodbury County, Iowa; **Possible Adverse Effect**

Dear Dan,

As you may recall we began early consultation on this project back in 2019. Since that time the scope of the project has continued to evolve, and we have conducted an initial Phase I intensive archaeological investigation. We have previously conducted and consulted on an intensive architectural survey of the project area. As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. We hosted a public information meeting for this project in April of 2021, information from that meeting can be found by visiting the following URL:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

Enclosed for your review and comment is the Phase I intensive archaeological investigation. This investigation reviewed the Area of Potential Effect (APE) consisting of 156 ac (63.18 ha). Most of this area has been heavily urbanized and much of it was inaccessible for subsurface investigations. This investigation identified a total of 56 parcels as potential survey areas for geoarchaeological and archaeological survey. These parcels were selected for testing through historic archival research, the results and recommendations of the geoarchaeological survey, assessment of previous impacts, accessibility for subsurface testing, and landowner permissions. Five of these parcels were previously investigated in 2005 and were not revisited. A total of 23 parcels were not surveyed due to landowner refusal, soil contamination, underground utility lines, and/or surface obstructions. The remaining 28 parcels were subsurface tested. In total, 114 auger tests, 17 geoarchaeological cores, and 5 backhoe trenches were excavated within the APE and 10 archaeological sites were identified. Table 1 below summarizes the results and recommendations of the archaeological investigations.

Our consultant identified 10 archaeological sites (13WD233–239; 13WD241–242; 13WD244) and has recommended two sites potentially eligible, six sites unevaluated, and two sites not eligible for nomination to the National Register of Historic Places (Table 1), we agree with these recommendations. Additional Phase I archaeological investigation is recommended for Sites 13WD233, 13WD235–237, 13WD242, and 13WD244 if these sites are to be impacted by the project footprint in order to determine their NRHP eligibility. Avoidance or Phase II evaluation is recommended for Sites 13WD238 and 13WD239. No further work is recommended for Sites 13WD234 and 13WD241.

Due to the general challenges of working in an area like downtown Sioux City much of the APE could not be tested according to AIA guidelines, therefore additional Phase I archaeological investigation was recommended for 30 parcels where archaeological sites were not identified, should these parcels be impacted by the footprint of the above-described project. An intensive Phase I archaeological investigation should also be conducted on areas that will be impacted that are currently under the street surface or other pavement obstructions.

At this time, we are requesting your concurrence with the findings of this investigation.

Table 1 – Phase I Archaeological Investigation Summary and Recommendations

Survey Parcel #	Investigation Recommendation	Site #	Site Recommendation
01	No Further Investigation		
02	No Further Investigation		
03/04	No Further Investigation		
05	Additional Phase I		
06	Additional Phase I		
07	Additional Phase I		
08	Additional Phase I		
09	Additional Phase I		
10	Additional Phase I		
11	Additional Phase I		
12	Additional Phase I		
13	Additional Phase I		
14	Additional Phase I	13WD233	Not Evaluated
15	Additional Phase I		
16	Additional Phase I		
17	Additional Phase I		
18	Additional Phase I		
19	Additional Phase I		
20a	No Further Investigation		
20b	No Further Investigation		
21a	No Further Investigation	13WD234	Not Eligible
21b	No Further Investigation		
22	Additional Phase I		
23	Additional Phase I		
24a	Additional Phase I		
24b	Additional Phase I	13WD244	Not Evaluated
24c	Additional Phase I	13WD235	Not Evaluated
24d	No Further Investigation		
24e	Additional Phase I	13WD236	Not Evaluated
25-28	Additional Phase I		
29-30 & 31a	Additional Phase I	13WD237	Not Evaluated
31b	Additional Phase I		
32	Additional Phase I		
33/34	Additional Phase I		
35	Avoidance/Phase II	13WD238	Potentially Eligible
36/37	Avoidance/Phase II	13WD239	Potentially Eligible
38/39	Additional Phase I		
40	Additional Phase I		
41	Additional Phase I		
42	No Further Investigation		
43	No Further Investigation		
44/45	No Further Investigation	13WD241	Not Eligible
46	Additional Phase I		
47	No Further investigation		
48	No Further Investigation		
49	Additional Phase I	13WD242	Not Evaluated

As this project continues to develop, we will work toward a determination of effect. As we continue to work through the process, we will keep your office and other stakeholders involved. 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 Location and Environment Bureau shall be contacted immediately.

If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us.

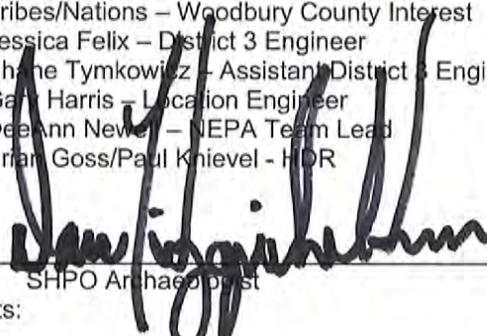
Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

Cc: Tribes/Nations – Woodbury County Interest
Jessica Felix – District 3 Engineer
Shane Tymkowitz – Assistant District 3 Engineer
Gary Harris – Location Engineer
Deann Newell – NEPA Team Lead
Brian Goss/Paul Knievel - HDR

Concur:


SHPO Archaeologist

Date:

8/18/2022

Comments:

July 28, 2022

Iowa DOT Project: NHS-12-1(37)--19-97
Iowa SHPO R&C: [20190897006](#)

Mr. Garrie KILLSAHUNDRED
THPO
PO Box 283
Flandreau, SD 57028

RE: Reconstruction of Gordon Drive/Grand Avenue Viaduct; 97-02775; FHWA #052830; Phase I Intensive Archeological Investigation; Sioux City, Woodbury County, Iowa

Dear Mr. KILLSAHUNDRED:

As you may recall we began early consultation on this project back in 2019. Since that time the scope of the project has continued to evolve, and we have conducted an initial Phase I intensive archaeological investigation. We have previously conducted and consulted on an intensive architectural survey of the project area. As design continues, we are working toward a project determination, that may include the replacement of the Gordon Drive/Grand Avenue Viaduct. We hosted a public information meeting for this project in April of 2021, information from that meeting can be found by visiting the following URL:

<https://www.news.iowadot.gov/pim/2021/04/gordon-drive-viaduct-and-bacon-creek-conduit-from-rustin-st-to-virginia-st-in-woodbury-county.html>

Enclosed for your review are excerpts from the Phase I intensive archaeological investigation. This investigation reviewed the Area of Potential Effect (APE) consisting of **156 ac** (63.18 ha). Most of this area has been heavily urbanized and much of it was inaccessible for subsurface investigations. In total, 114 auger tests, 17 geoarchaeological cores, and 5 backhoe trenches were excavated within the APE and 10 archaeological sites were identified. Table 1 below summarizes the results and recommendations of the archaeological investigations.

Our consultant identified 10 archaeological sites (13WD233–239; 13WD241-242; 13WD244). The investigation has recommended two sites potentially eligible, six sites unevaluated, and two sites not eligible for nomination to the National Register of Historic Places (Table 1), our Bureau agrees with these recommendations. Additional Phase I archaeological investigation is recommended for Sites 13WD233, 13WD235–237, 13WD242, and 13WD244 if these sites are to be impacted by the project footprint in order to determine their NRHP eligibility. Avoidance or Phase II evaluation is recommended for Sites 13WD238 and 13WD239. No further work is recommended for Sites 13WD234 and 13WD241.

Four of these sites have prehistoric components (13WD237, 13WD238, 13WD239, and 13WD244). 13WD237 consists of a prehistoric lithic scatter and historic residences components. The prehistoric component may be related to the previously recorded 13WD222, a historically noted Native American burial location. The prehistoric artifact assemblage contains a single flake fragment recovered from 130-140 cm below ground surface. 13WD238 consists of a prehistoric lithic scatter and historic residence components. The prehistoric component is located in an intact buried soil starting at approximately 540 cm below ground surface. Subsurface testing recovered a single secondary thinning flake from this buried soil. 13WD239 consists of a Woodland habitation and historic residential scatter components. The prehistoric component contains lithic shatter, pottery sherds, and likely animal bone and shell fragments and were recovered from a relatively intact buried context. 13WD244 consists of a Woodland habitation and historic scatter

components. The prehistoric component contains fire-cracked rock, pottery sherds, and animal bone fragments. All of these sites require additional Phase I or Phase II investigations.

Table 1 – Phase I Archaeological Investigation Summary and Recommendations

Survey Parcel #	Investigation Recommendation	Site #	Site Recommendation
01	No Further Investigation		
02	No Further Investigation		
03/04	No Further Investigation		
05	Additional Phase I		
06	Additional Phase I		
07	Additional Phase I		
08	Additional Phase I		
09	Additional Phase I		
10	Additional Phase I		
11	Additional Phase I		
12	Additional Phase I		
13	Additional Phase I		
14	Additional Phase I	13WD233	Not Evaluated
15	Additional Phase I		
16	Additional Phase I		
17	Additional Phase I		
18	Additional Phase I		
19	Additional Phase I		
20a	No Further Investigation		
20b	No Further Investigation		
21a	No Further Investigation	13WD234	Not Eligible
21b	No Further Investigation		
22	Additional Phase I		
23	Additional Phase I		
24a	Additional Phase I		
24b	Additional Phase I	13WD244	Not Evaluated
24c	Additional Phase I	13WD235	Not Evaluated
24d	No Further Investigation		
24e	Additional Phase I	13WD236	Not Evaluated
25-28	Additional Phase I		
29-30 & 31a	Additional Phase I	13WD237	Not Evaluated
31b	Additional Phase I		
32	Additional Phase I		
33/34	Additional Phase I		
35	Avoidance/Phase II	13WD238	Potentially Eligible
36/37	Avoidance/Phase II	13WD239	Potentially Eligible
38/39	Additional Phase I		
40	Additional Phase I		
41	Additional Phase I		
42	No Further Investigation		
43	No Further Investigation		
44/45	No Further Investigation	13WD241	Not Eligible
46	Additional Phase I		
47	No Further Investigation		
48	No Further Investigation		
49	Additional Phase I	13WD242	Not Evaluated

Due to the general challenges of working in an area like downtown Sioux City much of the APE could not be tested according to AIA guidelines, therefore additional Phase I archaeological investigation was recommended for 30 parcels where archaeological sites were not identified, should these parcels be impacted by the footprint of the above-described project. An intensive Phase I archaeological investigation should also be conducted on areas that will be impacted that are currently under the street surface or other

pavement obstructions. As part of this coordination effort, we are requesting your comments regarding any concerns you have that this project could impact any sites of religious or cultural significance to your tribe.

As this project continues to develop, we will work toward a determination of effect and keep your office involved. 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 Location and Environment Bureau shall be contacted immediately.

Enclosed with this package is a postage-paid notification form that you may use, if you wish, to return comments about the project. If you have any questions, please contact me at (515) 233-7820 or janee.becker@iowadot.us. If you wish to contact a representative of the U.S. government, call Mr. Michael LaPietra, Federal Highway Administration, Iowa Division, at (515) 233-7302.

Sincerely,



Janee Becker
Cultural Resources Manager/Archaeologist

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