

Iowa 150 Super Two Planning Study Benton, Buchanan, and Fayette Counties



Vision Document

Location and Environment Bureau | December 2023



EXECUTIVE SUMMARY

The Iowa Department of Transportation (DOT) performed a Super Two Planning Study (Study) for a portion of the State Highway 150 (IA 150) corridor in Benton, Buchanan, and Fayette Counties in northeastern Iowa. The purpose of the Study was to gain an understanding of the existing roadway's ability to meet current and future travel and mobility needs and to identify any potential improvement projects that may help meet those future needs. The recommendations were determined after evaluating the existing corridor for deficiencies, evaluating existing paved and partially paved intersections for turn lane improvement recommendations, identifying existing passing lane locations and potential future needs, and identifying spot roadway locations to address operational or safety concerns.

The Study area is approximately 28 miles long, beginning at Interstate 380 (I-380) at the southern limits and extending north to the corporate limits on the southern side of Oelwein. This section of IA 150 is primarily rural but passes through the communities of Independence and Hazleton. The Study consists of a series of separate analyses and standalone reports, including *IA 150 Super Two Study: Planning Framework Goals and Guiding Principles* (Jacobs, 2022), *IA 150 Super Two Study: Existing Conditions Memorandum* (Jacobs, 2023a), and *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b). The findings of these various studies and public outreach activities are culminated in this Vision Document, which sets forth recommendations for future study and investment in the IA 150 corridor.

RECOMMENDATIONS

- **TURN LANE IMPROVEMENTS AT FULLY PAVED OR PARTIALLY PAVED INTERSECTIONS**

The findings of the Study recommend improving some of the existing turn lanes and proposes new turn lanes at many of the fully paved or partially paved intersections. Currently, there are an estimated 348 points of access along IA 150 in the Study corridor, including 68 intersections. Based on the turn lane evaluation, there are 10 locations where new right-turn lanes are proposed (7 minor right, 3 major right). There are 2 locations where it is recommended that a minor right-turn lane storage be lengthened to provide a major right-turn lane. There are 11 locations where a new left-turn lane is proposed.

- **PROPOSED PASSING LANE LOCATIONS**

The findings of the Study recommend adding a total of 10 passing lanes, 5 in the northbound direction and 5 in the southbound direction.

- **SPOT ROADWAY IMPROVEMENTS**

The findings of the Study recommend some spot improvements to include shoulder widening, fencing or snow borrow, highway profile adjustments, guardrail protection, signing, as well as various improvements in Hazleton and Independence.

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ACRONYMS AND ABBREVIATIONS

3R	resurfacing, rehabilitation, and restoration
AADT	Annual Average Daily Traffic
DOT	Department of Transportation
I-380	Interstate 380
IA 150	State Highway 150
IA 281	State Highway 281
IA 920	State Highway 920
MP	mile post
PCR	potential crash reduction
PIM	public information meeting
PMT	project management team
ROW	right of way
Study	Super Two Planning Study
TEAP	Traffic Engineering Assistance Program
US 20	U.S. Highway 20

1 INTRODUCTION

The Iowa Department of Transportation (DOT) performed a Super Two Planning Study (Study) for a portion of the State Highway 150 (IA 150) corridor in Benton, Buchanan, and Fayette Counties in northeastern Iowa. This Study follows the Iowa DOT Super Two design guidance related to passing lanes, turning lanes, access management, shoulder design, signing and pavement markings, and rumble strips.

1.1 STUDY OVERVIEW

The objective of the Study is to gain an understanding of the corridor’s safety, mobility, and infrastructure, as well as to identify recommendations for Super Two roadway improvements necessary to meet current and future traffic operations and mobility needs. It is also intended to encourage public involvement and stakeholder input throughout the process. The two-lane highway roadway improvements primarily focused on turning and passing lane additions. Other spot highway roadway improvements will also be recommended in certain areas to help improve the transportation corridor within the Study area.

This Study will not result directly in a programmed or “funded” project but may result in some components that can be addressed over time and incorporated into future smaller-scale projects that can be constructed. Future projects will further evaluate conditions and help design the improvements accordingly.

This report will summarize the Study’s findings and recommendations. The Study consists of a series of separate analyses and standalone reports, with the various Study results and findings culminating in this Vision Document. The Study includes the following technical reports:

- *IA 150 Super Two Study: Planning Framework Goals and Guiding Principles* (Jacobs, 2022)
- *IA 150 Super Two Study: Existing Conditions Memorandum* (Jacobs, 2023a)
- *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b)

1.2 STUDY AREA

IA 150 is a primary north-south highway in northeast Iowa. IA 150 connects with other major east-west interstate and primary highway corridors, including Interstate 380 (I-380) and U.S. Highway 20 (US 20), which are part of Iowa’s Commercial and Industrial Network. Figure 1 shows the approximately 28-mile-long Study area, which begins at I-380, north of Urbana, and ends at the southern corporate limits of Oelwein. This section of IA 150 is a two-lane rural highway that passes through the Iowa communities of Independence and Hazleton. It is predominately rural in nature with roadway ditches and frequent points of access. IA 150 becomes more of an urban roadway through the communities with sections of curb and gutter, on-street parking, and sidewalks. One rail line, the Chicago Central & Pacific (which is part of the Canadian National Railway) crosses the corridor in Independence. The IA 150 corridor passes through Benton and Buchanan Counties, which are under the oversight of Iowa DOT District 6, and Fayette County, which is under the oversight of Iowa DOT District 2.

Existing IA 150 traffic volumes (2021) within the Study corridor varied between rural and urban sections of the Study area. The Annual Average Daily Traffic (AADT) in Independence ranged from 4,000 to 6,200 vehicles. Rural sections within the Study area generally showed less AADT

(ranging from 1,000 to 3,200 vehicles). Historical Iowa DOT average daily traffic maps suggest that AADT has been consistent over the past few decades.

Figure 1. IA 150 Super Two Study Area



1.3 GOALS AND GUIDING PRINCIPLES

The goals and outcomes of the Study are expected to closely align with the improvement strategies and focus areas defined in the *State Transportation Plan: Iowa in Motion 2050* (Iowa DOT, 2022), including the following:

- Right-size the highway system and apply cost-effective solutions to locations with existing and anticipated issues
- Target investments to address mobility and safety needs on critical two-lane routes
- Reduce the number of overall major and minor crashes
- Maximize the use of existing roadway capacity

The goal of this document is to summarize recommendations for two-lane highway roadway improvements within the Study area. These roadway improvements are intended to increase the operational performance, safety performance, and mobility within this corridor. This Study will recommend roadway improvements throughout the corridor to be incorporated into future projects and will focus primarily on the following objectives:

- Identifying proposed new turn lanes and upgrading existing turn lanes
- Identifying proposed passing lane locations
- Identifying conceptual level traffic alternatives in downtown Independence
- Identifying spot roadway improvements

This Study addresses the goals by following three primary guiding principles:

1. Good Stewardship and Resiliency—Provide a safe and efficient transportation system while being good environmental stewards and appropriately using Iowa tax dollars.
2. Transparency—Provide an open and transparent project process where findings are shared publicly, and stakeholders have continuous opportunities to offer input on the project.
3. Design Principles—Maintain a transportation network that aligns with core design principles and anticipates needs to the year 2048.

2 EXISTING CONDITIONS ANALYSIS

This section summarizes the major findings of the various existing condition studies. The following technical reports provide additional details:

- *IA 150 Super Two Study: Existing Conditions Memorandum* (Jacobs, 2023a)
- *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b)

2.1 INITIAL STAKEHOLDER OUTREACH

Early in the Study, three small group meetings were held with the local jurisdictions and other IA 150 stakeholders. In addition, Iowa DOT held an internal project management team (PMT) meeting to review one-way pair alternatives being considered in the City of Independence and overall corridor proposed recommendations. Because representatives from the City and Buchanan County participated in the PMT meeting, this meeting is also considered a small group meeting and is included in Table 1.

Table 1. IA 150 Small Group Meetings

Stakeholder Group	Meeting Date
City of Independence, Buchanan County (in person and virtual)	August 30 2022
Fayette County (virtual)	October 11, 2022
Benton County (virtual)	October 12, 2022
Iowa DOT PMT Meeting (virtual)	August 9, 2023

The small group meetings were conducted to inform participants about the Study’s location, purpose, process, and potential alternatives. The intent was to gather feedback from agencies and stakeholders on the current functionality and future needs of the IA 150 corridor and to discuss potential solutions to address the transportation needs. Input was provided at these small group meetings, and Super Two type improvements were received favorably. Meeting summaries can be found in the following appendices:

- Small group meeting summaries are included in Appendix A
- The PMT meeting summary is included in Appendix D
- Stakeholder correspondence is included in Appendix I

Section 3 provides a summary of the public outreach effort.

2.2 EXISTING INFRASTRUCTURE CONDITIONS AND FEATURES

The *IA 150 Super Two Study: Existing Conditions Memorandum* analyzed the existing corridor’s infrastructure conditions and features (Jacobs, 2023a). Overall, the corridor features are within today’s acceptable design parameters. Only isolated locations had current roadway features that do not align with current design practices. Key findings are as follows:

- The existing IA 150 roadway meets current design practices and policies with only isolated locations that may be considered less than ideal. These areas involve intersection sight distance, turn lane tapers, decision sight distance, and clear-zone requirements.
- One location, just south of the Benton-Buchanan County line, was noted as having a vertical grade greater than 5 percent and may cause a reduction in heavy truck travel speed of approximately 7 miles per hour.

- Shoulder width through the majority of the corridor is less than the minimum acceptable width criterion of 6 feet.
- The existing infrastructure is predominantly in fair condition, with poor pavement conditions noted in Independence and the southern portion of the project. However, both of these locations have had recent construction projects that may have improved the pavement condition. All existing bridges appear to be in reasonable condition, and none are currently posted for weight restrictions or considered deficient. Bridge inspection reports suggest that a bridge deck replacement over the Wapsipinicon River be considered in the next 5 to 10 years.
- There are sections of relatively short passing zones (less than the desired 1-mile length) at the southern end of the project and north of Independence to Bryantsburg.
- There are no passing lanes within the Study corridor.

2.3 CRASH HISTORY AND SAFETY

The *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b) analyzed the crash history and safety analysis for the last 5 full years (2017 to 2021) of crash data available at the time of the analysis. A total of 372 crashes occurred within the Study area. Of those, 2 were fatal crashes, 30 were injury or possible injury crashes, and the remainder were property damage only crashes. The first fatal crash (2018) was a broadside (front to side) collision involving a vehicle failing to yield to a stop sign at the intersection of IA 150 and Fontana Boulevard. The second fatal crash (2021) was a head-on collision involving a vehicle crossing the centerline at the intersection of IA 150 and I-380/IA 27 (westbound ramp).

The predicted number of crashes for a given traffic volume is based on the relationship between the observed number of crashes and AADT. For most specific locations, the observed number of crashes is likely to be greater than or less than the predicted number calculated by the safety performance functions. The observed crash count is then corrected, using the Empirical Bayes method, resulting in the expected number of crashes at that location. The difference between the expected number of crashes and the predicted number of crashes gives the potential for safety improvement, also known as potential crash reduction (PCR). Comparing PCR values helps to normalize the crash data by accounting for exposure for a crash to occur. By normalizing the data with traffic volumes, areas can be compared while minimizing the bias created by varying levels of traffic on individual roadway segments and intersections.

PCR values are categorized as either high, medium, or negligible. High PCR level intersections or segments represent locations in which the rate of crashes is greater than the statewide average. Medium PCR level intersections or segments have room for improvement and may qualify for safety funds. Negligible PCR level intersections or segments are performing better than expected.

In total, 5 intersections and 12 roadway segments were found to have medium or high PCR levels. Specific locations are noted on the corridor exhibits in Appendix F. Fourteen intersections and one segment were identified as locations having more crashes than expected.

The analysis found in the *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b) was used to inform the decision-making process alternative evaluation; however, safety was not the primary driving factor for the recommendations found in this report.

2.4 ENVIRONMENTAL CONSTRAINTS

A desktop review of known environmental and cultural constraints was conducted as part of the Study. The desktop review focused on environmental areas such as floodplains, wetlands, woodland areas, recreational areas, waterways/protected rivers, sovereign lands, and regulated material sites. The review also looked at cultural and community constraints, such as cemeteries and churches.

IA 150 has several water crossings within the Study area. These include the Wapsipinicon River, Bear Creek and its branches, Harter Creek, Otter Creek and its branches, and Hazelton Creek. The existing terrain along the IA 150 Study corridor is generally flat. The existing land use in the area is primarily rural and agricultural with some existing farmsteads along the corridor. In and near the Iowa communities along the Study corridor, land use is a mix of residential, commercial, and industrial. Other potential constraints throughout the corridor include recreation lands, wetlands, floodplains, threatened and endangered species habitats, and cultural resources.

Appendix E presents the results of the environmental desktop review within the Study area. Areas of turn lane and spot improvements will be reviewed as part of individual project planning and development in the future.

3 PUBLIC INVOLVEMENT PROCESS AND INPUT

Early in the study, a public involvement plan was developed to guide the public involvement process for the study and to identify opportunities for the public to provide ideas and comments regarding the development of the IA 150 Super Two Planning Study. The plan included a range of communication channels, online public information meetings (PIMs), stakeholder/small group meetings, and email or postal mail communications. The primary avenues for public engagement and feedback collection were small group meetings (Section 2.1) and online PIMs.

Two online PIMs were held during the Study. Each online meeting was posted on the Iowa DOT's website, including a video and opportunity to provide comments. Meetings were announced through the Study email distribution, newspaper advertising, and other media releases. A summary of the Study's public meetings, including the meeting logistics and topics are presented in the sections that follow.

3.1 PUBLIC INFORMATION MEETING #1

PIM #1 was a virtual online meeting that was available online through Iowa DOT's public involvement website from January 17 through 30, 2023. The public comment period ended January 30, 2023. The online PIM consisted of a prepared presentation, complete with audio, that shared information about the Study process, Study goals and objectives, results from initial data gathering, and existing conditions analysis.

The website containing the virtual PIM was viewed by 220 attendees, and 75 comments were submitted to Iowa DOT. Safety concerns, the need for passing lanes, and concerns about the impact of the project on communities—particularly the City of Independence—were common themes. Appendix B provides the comments received and the summary of PIM #1.

3.2 PUBLIC INFORMATION MEETING #2

To be completed after PIM #2.

4 RECOMMENDATIONS

The following recommendations address the overarching goals of the Study. The basis for these recommendations is a combination of the findings and observations from the various topical studies performed as part of this Study and input received from the public and project stakeholder groups. Practical-based design methods were used in determining recommendations within the Study area.

4.1 TURN LANE CRITERIA

Intersections on the rural two-lane highway were evaluated in accordance with *Iowa DOT Design Manual* policies in Chapters 6A-1 and 6C-2 (Iowa DOT, 2019). Chapter 9 of *A Policy on Geometric Design of Highways and Streets* (AASHTO, 2018) was also considered along with the 5-year crash history of collisions and PCR locations identified by Iowa DOT. The following are some of the key criteria.

- Within the rural sections, all partially and fully paved intersections are recommended to have a minimum of a minor right-turn lane in accordance with the *Iowa DOT Design Manual* policies in Chapter 6C-2 (Iowa DOT, 2019). For partially paved intersections, only the paved leg of the intersection requires a minor right-turn lane.
- In a few spot locations, where the intersection of a rural two-lane highway with a gravel sideroad warrants a right-turn lane, only a minor right-turn lane is recommended. The design should follow *Iowa DOT Design Manual* policies in Chapter 6A-1, Figure 7 (Iowa DOT, 2019).
- Where there is an existing or proposed left-turn lane in one direction of travel, a symmetrical left-turn lane configuration should be provided in accordance with Iowa DOT Design Manual policies in Chapter 6A-1 (Iowa DOT, 2019). This would provide a left-turn lane in both directions of travel. Symmetrical turn lanes should be recommended on an individual intersection basis.
- Left-turn lane warrants for a two-lane highway within urban and suburban areas were evaluated using the figure from *NCHRP Report 745: Left-Turn Accommodations at Unsignalized Intersections* on pages 9 and 10 (Left Turn Lanes) (TRB, 2013). There is also guidance for the geometric design of left-turn bays, offset left turns, and bypass lanes that were applied as part of the corridor recommendations.

Traffic forecasts for paved or partially paved intersections were provided by the Iowa DOT Systems Planning Bureau. Right-turn lanes were evaluated for Program Year 2028. Left-turn

lanes were evaluated for Design Year 2048. The majority of intersections with gravel sideroads were omitted based on low historical traffic volumes.

Existing channelized turning movements and dedicated right-turn lanes on IA 150 were also analyzed to determine whether the existing design, including turn bay length and taper rate, were adequate or needed to be upgraded.

Varying factors, such as reduced in-town speeds, intersection spacing, driveways, and adjacent traffic intersection signals, need to be analyzed in more detail to recommend turn lane improvements. In spot locations, Traffic Engineering Assistance Program (TEAP) studies have been conducted. The recommendations from those studies were folded into the proposed improvements.

4.2 INTERSECTION TURN LANE IMPROVEMENTS

Of the 68 intersections along the corridor, 50 are with fully paved or partially paved local roadway intersections (with or without existing turn lanes). These paved intersections were analyzed in both rural and corporate limits. Based on the findings, turn lane improvements are recommended along the Study corridor.

Table 2 shows the results of the analysis for the existing turn lanes and locations proposed for new turn lanes within the Study area. Table 2 also provides recommendations for turn lane improvements at these locations. Appendix F includes a series of maps that include the turn lane analysis, along with other roadway improvements, which are discussed later in this section.

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
Hutton Drive	NB	Right	Yes	Yes	Existing Turn Lane Adequate	Paved WB approach	Urbana/Benton
	SB	Left	No	No	No Recommendation		
IA 920/ 51st Street (D62)	NB	Right	Yes	Yes	Existing Turn Lane Adequate	Paved WB approach	N. of Urbana/Benton
	NB	Left	Yes	No	Existing Turn Lane Adequate		
	SB	Right	No	Yes	Minor Right	Gravel EB approach	
	SB	Left	Yes	Yes	Existing Turn Lane Adequate		

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
330th Street (D48)	NB	Right	No	No	No Recommendation	Gravel WB approach	N. of Urbana/ Buchanan
	NB	Left	No	No	No Recommendation		
	SB	Right	Yes	Yes	Upgrade from Minor to Major Right ^c	Paved EB approach	
	SB	Left	No	No	No Recommendation		
290th Street (D47)	NB	Right	Yes	Yes	Upgrade from Minor to Major Right ^c	Paved WB approach	W. of Rowley/ Buchanan
	NB	Left	Yes	No	Existing Turn Lane Adequate ^c		
	SB	Right	Yes	Yes	Existing Turn Lane Adequate ^c	Paved EB approach	
	SB	Left	Yes	Yes	Existing Turn Lane Adequate		
240th Street/ 27th Street	NB	Right	No	Yes	Minor Right	Paved WB approach	S. of Independence/ Buchanan
	NB	Left	No	Yes	Left Turn		
	SB	Right	No	Yes	Minor Right	Gravel EB approach	
	SB	Left	No	Yes	Left Turn		
US 20 EB On Ramp	NB	Right	Yes	Yes	Existing Turn Lane Adequate	Paved On Ramp	Independence/ Buchanan
	SB	Left	Yes	Yes	Existing Turn Lane Adequate		
US 20 WB On Ramp	NB	Left	Yes	Yes	Existing Turn Lane Adequate	Paved On Ramp	Independence/ Buchanan
	SB	Right	No	Yes	Major Right		

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
Enterprise Drive (Signalized)	NB	Right	Yes	No	Existing Turn Lane Adequate	Paved WB approach	Independence/ Buchanan
	NB	Left	Yes	No	Existing Turn Lane Adequate		
	SB	Right	Yes	No	Existing Turn Lane Adequate	Paved EB approach	
	SB	Left	Yes	Yes	Existing Turn Lane Adequate		
Lover's Lane Blvd	NB	Left	No	Yes	Left Turn	Paved WB approach	Independence/ Buchanan
	SB	Left	No	Yes	Left Turn	Paved EB approach	
1st Street/ 3rd Avenue (Signalized)	NB	Right	No	No	No Recommendation	Paved all approaches	Independence/ Buchanan
	NB	Left	No	No	No Recommendation		
	EB	Right	No	No	No Recommendation		
	WB	Left	Yes	Yes	Existing Turn Lane Adequate		
	WB	Right	No	No	No Recommendation		
1st Street/ 5th Avenue (Signalized)	EB	Right	No	No	No Recommendation	Paved all approaches	Independence/ Buchanan
	EB	Left	Yes	Yes	Existing Turn Lane Adequate		
	SB	Right	No	No	No Recommendation		
	SB	Left	No	No	No Recommendation		

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
6th Street NE	NB	Right	No	No	No Recommendation	Paved all approaches	Independence/ Buchanan
	NB	Left	No	No	No Recommendation		
	SB	Right	No	No	No Recommendation		
	SB	Left	No	No	No Recommendation		
14th Street NE	NB	Right	No	No	No Recommendation	Paved WB approach	Independence/ Buchanan
	SB	Left	No	Yes	Left Turn		
Oterville Boulevard/ 200th Street (D16)	NB	Right	No	No	No Recommendation	Gravel WB approach	N. of Independence/ Buchanan
	NB	Left	No	Yes	Left Turn		
	SB	Right	No	Yes	Major Right		
	SB	Left	No	Yes ^b	Left Turn	Paved EB approach	
	EB	Right	No	No	No Recommendation		
EB	Left	No	No	No Recommendation			
170th Street	NB	Right	Yes	-- ^d	Existing Turn Lane Adequate ^c	Gravel WB approach Gravel EB approach	S. of Bryantsburg/ Buchanan
	SB	Right	Yes	-- ^d	Existing Turn Lane Adequate ^c		

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
150th Street	NB	Right	No	No	No Recommendation	Gravel WB approach	S. of Bryantsburg/ Buchanan
	NB	Left	No	No	No Recommendation		
	SB	Right	No	No	No Recommendation	Gravel EB approach	
	SB	Left	No	No	No Recommendation		
Fontana Boulevard	NB	Left	No	No	No Recommendation	Paved EB approach	S. of Hazleton/ Buchanan
	SB	Right	No	Yes ^a	Minor Right		
134th Street	NB	Left	No	No	No Recommendation	Paved EB approach	S. of Hazleton/ Buchanan
	SB	Right	No	Yes ^a	Minor Right		
125th Street	NB	Left	No	Yes	Left Turn	Paved EB approach	S. of Hazleton/ Buchanan
	SB	Right	Yes	Yes	Existing Turn Lane Adequate ^c		
123rd Street	SB	Right	No	Yes ^a	Minor Right	Paved EB approach	S. of Hazleton/ Buchanan
Hayes Street (C57)	NB	Right	No	No	No Recommendation	Paved all approaches	Hazleton/ Buchanan
	NB	Left	No	Yes	Left Turn		
	SB	Right	No	Yes	No Recommendation		
	SB	Left	No	Yes	Left Turn		

Table 2. Turn Lane Analysis

Intersection Location on IA 150	IA 150 Direction of Travel	Left/Right	Existing Turn Lane Present	Turn Lane Warrant	Recommendations	Crossroad Characteristics	City/County
100 th Street/ County Line Road	NB	Right	No	Yes	Minor Right	Paved all approaches	Oelwein/ Fayette
	NB	Left	Yes	Yes	Existing Turn Lane Adequate		
	SB	Right	Yes ^e	Yes	Major Right		
	SB	Left	No	Yes ^b	Left Turn		

^a Minor right turn at paved sideroad

^b Left-turn symmetry

^c Lengthen turn lane taper

^d Turn lane warrant not analyzed

^e SB right turn striped in the thru lane

EB = eastbound

NB = northbound

SB = southbound

WB = westbound

4.3 SUPER TWO HIGHWAY RECOMMENDED PROPOSED PASSING LANE LOCATIONS

A range of passing lane configurations and combinations in each direction of travel throughout the Study corridor were developed and evaluated at the corridor-wide level. The evaluation of the passing lane locations was generally limited to the rural sections of the Study corridor. Posted speeds are reduced through the communities of Independence, Hazleton, and Oelwein and, therefore, do not fit the need for Super Two passing lanes. Current Super Two design guidance and practice from the *Iowa DOT Design Manual* (Iowa DOT, 2019) recommends a preferred spacing of 4 to 5 miles between passing lanes with allowable adjustments up to 0.5 mile. The uniform spacing builds a sense of expectation for a driver as to when future passing opportunities will be available.

Passing lane lengths were determined using the *Iowa DOT Design Manual* guidance in Chapter 6C-2 (Iowa DOT, 2019). Existing traffic volumes were forecasted by Iowa DOT using 2017 AADT data that were grown to existing year 2021. These data were reviewed in the rural sections to determine passing lane lengths. A posted speed of 55 miles per hour was used to determine the length of the merge taper with a standard 15:1 diverge taper.

The following resources were used to evaluate the placement of proposed passing lane locations:

- Existing infrastructure, including large drainage structures, highway curvature and vertical grades, bridges, access density, major utilities, and railroads
- *Iowa DOT Design Manual* policies in Chapters 6C-1 and 6C-2 (Iowa DOT, 2019)
- Desktop review of environmental resources

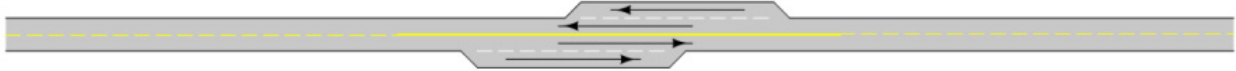
Figure 2 represents the typical passing lane concepts. Where possible, a separated passing lane plan layout is the preferred pattern recommended by the Iowa DOT for passing lane locations. Keeping separated passing lanes helps prevent the illusion of a four-lane expressway. A typical expressway cross section allows faster driving speeds than normally allowed for a rural two-lane highway. Additional guidance is provided in the *Iowa DOT Design Manual*, Chapter 6C-2, for passing lane lengths based on traffic volumes.

Figure 2. Passing Lane Concepts

Plan View (Separated Passing Lanes)



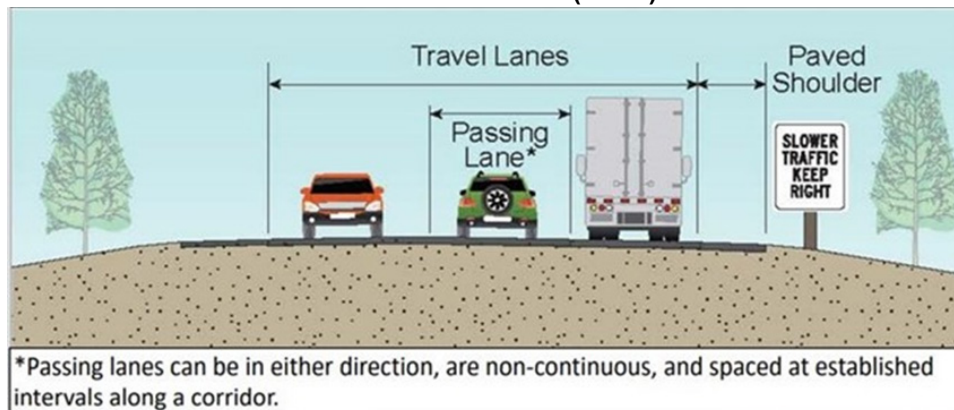
Plan View (Overlapping Passing Lanes)



Plan View (Side-by-Side Passing Lanes)



Cross Section View (Rural)



Source: Iowa DOT.

The various configurations and combinations were ultimately combined into one proposed alternative shown in Appendix G. The Study is recommending 10 proposed passing lane locations within the Study area. They are referred to hereafter as SB # or NB # throughout the document.

Large structures, such as bridges and multiple barrel concrete box culverts, were avoided. Impacting these structures would be costly for roadway expansion. Passing lane SB #5 does pass over a twin reinforced concrete box culvert, but that drainage structure extends west under an adjacent local road so the addition of a southbound passing lane should not require

extension of the box culvert. Smaller box culverts and roadway culverts may be impacted and need to be extended or relocated in several areas where passing lanes are recommended.

Passing lanes were maximized, to the extent feasible, between the project boundaries and communities located along the corridor. From the southern project limits to the southern corporate limits of Independence is one area targeted for passing lanes as well as the area from the northern corporate limits of Independence to the southern corporate limits of Hazleton. The portion of the corridor from Hazleton to the northern project limits has limited opportunities for passing lanes because of the access density and existing infrastructure, such as bridge and highway curvature.

In all but one of the proposed passing lanes, the minimum recommended passing lane length was used. SB #5 was extended beyond the minimum length so that the passing lane could pass through a horizontal curve and end in a straight tangent section of IA 150.

The Study corridor is generally flat with only one localized area with a vertical grade steeper than 5 percent (near the Benton-Buchanan County line). This localized grade was targeted for a passing opportunity in the recommended concept and falls within passing lane SB #1. All other passing lanes are in relatively flat grades or gently rolling topography. The grades were examined using visualization tools and aided with as-built plans. Passing lane elevations and grades should be further examined for optimization as sections of the road progress into the development process.

Field notes from the existing conditions review noted above ground utilities that may pose an issue for highway expansion for passing lanes. Of the 10 recommended passing lanes, there are three—NB #1, NB #2, and SB #1—noted as having potential conflicts. Adjacent to these proposed passing lanes are overhead utilities on wooden poles that are either near to the highway shoulder or would be affected by ditch grading adjacent to a new passing lane. These utilities would likely need to be relocated but should be further examined during the development process. There is one at-grade railroad crossing on the Study corridor that is located within the city limits of Independence and is not a factor in the proposed passing lane layout.

Proposed passing lanes are anticipated to require minimal new right of way (ROW) but should be examined further as the development progresses. Proposed passing lane SB #1 may have the potential need for additional ROW or easement because there is a cut bank on the western side of the highway that would be impacted with highway widening.

Passing lanes are proposed in locations to minimize impacts to known environmental resources. Environmental constraints are shown in Appendix E. There was one passing lane noted as having a potential issue after reviewing the proposed passing lanes against the environmental constraints. Widening the highway for passing lane SB #4 would likely affect the adjacent floodplain associated with Harter Creek, which parallels IA 150 in this location. The floodplain extends up to the existing highway shoulder. This should be analyzed further in the future to determine whether mitigation is required.

Appendix H provides images of the beginning and ending of proposed passing lanes. Table 3 provides recommendations for proposed passing lane locations within the Study area. Table 3 identifies approximate locations by mile post (MP), direction, approximate elevations of beginning and end of passing lanes, distances of the passing lane and its components, and city/county location.

Table 3. Recommended Passing Lane Locations

Passing Lane #	Begin Mile Post	End Mile Post	Direction	Begin Elevation (feet)	End Elevation (feet)	Passing Lane Length (feet)	Total Length (including tapers) (feet)	Distance to Next Direction Passing Lane (South to North) (miles)	City/County
NB #1	14.3	15.1	North	892	952	3,200	4,040	3.5	N. of Urbana/ Benton
SB #1	28.3	29.1	South	972	976	3,200	4,040	3.5	N. of Urbana/ Benton & Buchanan
NB #2	31.1	31.9	North	943	939	3,200	4,040	3.9	S. of Independence/ Buchanan
SB #2	32.6	33.4	South	892	908	3,200	4,040	4.0	S. of Independence/ Buchanan
NB #3	35.7	36.5	North	918	913	3,200	4,040	6.9	S. of Independence/ Buchanan
SB #3	37.4	38.2	South	959	933	3,200	4,040	6.4	S. of Independence/ Buchanan
NB #4	43.5	44.2	North	956	980	3,200	4,040	3.8	N. of Independence/ Buchanan
SB #4	44.7	45.5	South	1,003	957	3,200	4,040	3.8	N. of Independence/ Buchanan
NB #5	48.7	49.5	North	985	972	3,200	4,040	-	S. of Hazleton/ Buchanan
SB #5	50.0	50.9	South	983	1,000	4,200	5,040	-	S. of Hazleton/ Buchanan

As these passing lane recommendations are incorporated into future construction projects, they may need to be modified accommodate unforeseen conditions.

4.4 RECOMMENDED SPOT ROADWAY IMPROVEMENTS

The Study identified and analyzed some potential spot roadway improvements within the Study area. The following criteria were used to evaluate a series of spot improvements:

- Existing roadway conditions
- Input from stakeholders and Iowa DOT officials
- Crash and PCR data from 2017 through 2021
- Existing infrastructure, such as the presence of bridges and reinforced concrete box culverts
- Environmental constraints

Recommended improvements are included in both the rural and urban settings across the Study corridor. Appendix F shows the locations of all recommended improvements.

4.4.1 SHOULDER WIDENING

Shoulder widths through most of the Study corridor are less than the minimum acceptable width criterion of 6 feet, as outlined in the *IA 150 Super Two Study: Existing Conditions Memorandum* (Jacobs 2023a). In addition to the memorandum, the Iowa DOT standard for Super Two corridors also recommends that existing shoulders less than 8 feet be widened to 10 feet and paved full width (Iowa DOT, 2019). Table 4 lists the locations for shoulder widening along the Study corridor.

The recommended shoulder widening does not exclude bridges or large concrete box culverts, as drawn on the Study corridor maps in Appendix F. Future shoulder widening projects will need to determine whether shoulder widening at these structures is necessary and cost effective. From a practical design approach, it might be more applicable to increase bridge shoulder widths or lengthen box culverts based on the life cycles of the structures themselves, rather than with a shoulder widening project. Highway ditch capacity and ditch grading will need to be reviewed in greater detail with any proposed shoulder widening. ROW will also need to be reviewed because ditch grading will widen away from the highway with any increase in shoulder width.

Table 4. Summary of Shoulder Widening

Location	Begin Mile Post	End Mile Post	Direction	Length (miles)
Hutton Drive to Benton County Line	13.1	29.0	North	3.5
	13.1	29.0	South	3.5
Buchanan County Line to 27th Street	29.0	39.1	North	10.1
	29.0	39.1	South	10.1
Enterprise Drive to 8th Street	39.6	40.3	North	0.6
	39.6	40.3	South	0.6
11th Street to Reverse Curves	41.6	45.5	North	3.9
	41.6	45.5	South	3.9

Table 4. Summary of Shoulder Widening

Location	Begin Mile Post	End Mile Post	Direction	Length (miles)
Reverse Curves to Bryantsburg	47.00	49.3	North	2.3
	47.00	49.3	South	2.3

4.4.2 INDEPENDENCE IMPROVEMENTS

As part of the Study, conceptual level traffic alternatives were analyzed to address travel demands along the IA 150 corridor through the downtown area. Existing IA 150 travels along 3rd Avenue SE until reaching 1st Street E, then turns east on 1st Street E for two blocks until reaching 5th Avenue NE, then turns north on 5th Avenue NE and continues north through the rest of Independence. The main thoroughfare for east-west traffic in the City of Independence is 1st Street E, and the two blocks that overlap with IA 150 create a heavy travel demand. Traffic volumes double along 1st Street E between 3rd and 5th Avenues with the combined movement patterns of east-west city traffic and north-south highway traffic. Volumes are not expected to decrease due to city growth as well as planned improvements outlined in the *Independence Downtown Revitalization Plan 2021* (MSA, 2021). The segment of highway from 2nd Street SE (one block south of 1st Street) to 2nd Street NE (one block north of 1st Street) has a high PCR as noted in the *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b). Ten alternatives were developed and presented to the PMT for review and discussion and are included in Appendix J. The PMT meeting summary is included in Appendix D. Alternatives #1 and #2 received general support from the community representatives and PMT over the other eight presented alternatives. Analysis of bypass alternatives were not considered with this Study.

Alternative #1 proposes to separate northbound and southbound IA 150 traffic by creating a one-way pair using 2nd Street NE and 3rd Avenue NE as the route for southbound IA 150, whereas northbound IA 150 would remain on the same route as today. These routes for northbound and southbound IA 150 would then be converted to one-way only as shown in inset D1 of the Proposed Improvements in Appendix F. This alternative would remove southbound IA 150 traffic from 1st Street E as well as remove the westbound to southbound left-turn movement at the 1st Street/3rd Avenue intersection. Both factors would likely improve the vehicle and pedestrian mobility in this area as well as increase pass-through traffic on 3rd Avenue NE and 2nd Street NE, which are both part of the revitalization area. One disadvantage to Alternative #1 is that westbound traffic on 1st Street E would need to reroute north to 2nd Street NE between 3rd and 5th Avenues causing an increase in out-of-direction travel for those vehicles.

Alternative #2 is the same as Alternative #1 except the 1st Street E would remain open to two-way traffic instead of changing to one-way only (inset D2 of the Proposed Improvements in Appendix F). The benefits are similar to Alternative #1 in that southbound IA 150 traffic would be removed from 1st Street E and there would be an increase in pass-through traffic on 3rd Avenue NE and 2nd Street NE. An additional benefit would be no out-of-direction travel for

westbound traffic on 1st Street E as it approaches the two blocks between 3rd and 5th Avenues. One major difference from Alternative #1 is that the westbound to southbound left-turn movement at the 1st Street/3rd Avenue intersection would remain in place for local traffic westbound on 1st Street E. Traffic would be significantly reduced at this turn because southbound IA 150 would be relocated to 3rd Avenue NE, but the benefits for pedestrian mobility would likely not be as good compared with Alternative #1. The recommended one-way pair alternatives will require a more detailed traffic analysis, perhaps through a TEAP Study, to explore the impacts of changing some streets to one-way in the downtown area.

PCR data from the Iowa DOT, as detailed in the *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs, 2023b), show medium to high values in three additional segments within Independence. These segments are US 20 through 17th Street SE, the intersection at Lover’s Lane Boulevard, and 12th Street NE to 206th Street. Documented crash data note nine rear-end collisions between Enterprise Drive and Lover’s Lane Boulevard and six rear-end collisions between 12th Street NE and 206th Street that were attributed to vehicles waiting in traffic to turn left. This indicates a potential need for a continuous left-turn bay to remove turning vehicles from the through traffic. It was also noted during the field review that there was limited line of sight for drivers on Lover’s Lane Boulevard looking south due to the hillside grading and trees adjacent to the shoulder. A TEAP Study was completed for the City of Independence in the southern portion of the city between Enterprise Drive and Lover’s Lane Boulevard. The TEAP Study also made short- and long-term recommendations (HR Green, 2021) for this portion of the Study corridor.

4.4.3 FENCING OR SNOW BORROW

There are a few locations in the Study corridor noted as having issues with snow drifting due to the low profile of the highway relative to the adjacent agricultural fields. Standing corn fences have been used in the past to mitigate the snow drift with mixed results. One proposed recommendation is to implement snow borrow projects along the corridor to create areas parallel to the highway to hold back snow. This may involve purchasing new ROW. Another option would be to construct temporary snow fencing that could be installed after harvest and removed before planting in the spring as outlined in *Iowa’s Cooperative Snow Fence Program* (Iowa DOT, 2005). Other options are more permanent in nature and may not be well suited or compatible with the annual agricultural harvesting that takes place. These options include a permanent structural snow fence, or a living snow fence made up of trees, shrubs, and native grasses. These more permanent options would also likely require new ROW to be purchased. Table 5 lists the recommended snow borrow or fence locations in the Study corridor.

The section of the Study from north of Bryantsburg to Hazleton has a high PCR value based on review of the PCR data from the Iowa DOT (*IA 150 Super Two Study: Existing Crash and Safety Performance Report* [Jacobs 2023b]). Review of the crash data indicates a greater number of animal-related crashes, which could be attributed to Otter Creek that runs parallel, and flows into, nearby Fontana Lake southwest of Hazleton. The proposed recommendation in this section would be to construct deer fence adjacent to the highway to deter wildlife from crossing the highway in this segment. Table 5 lists the recommended deer fence location in the Study corridor.

Table 5. Fence or Snow Borrow Locations

Location	Begin Mile Post	End Mile Post	Direction	Total Length (miles)	Type of Mitigation
South of the Benton/ Buchanan County Line	28.5	29.0	Both	1.0	Snow Borrow or Snow Fence
North of the Benton/ Buchanan County Line	31.0	32.0	Both	2.0	Snow Borrow or Snow Fence
Rowley Corner (Adjacent to County Road D47)	33.0	34.0	Both	2.0	Snow Borrow or Snow Fence
South of Hazleton	49.3	51.0	Both	3.4	Deer Fence

4.4.4 BENTON-BUCHANAN COUNTY LINE INTERSECTION

During both the field review and stakeholder meetings, the intersection at the Benton-Buchanan County line was identified as a location with multiple concerns. The vertical grade south of the intersection is steeper than 5 percent, and a passing lane is recommended (as covered in the previous section). If a passing lane is constructed, there may be an opportunity to address other issues at this location. Because of the existing horizontal and vertical curvature at this location, the estimated decision sight distance for drivers approaching the intersection is near to the minimum acceptable criteria in accordance with *Iowa DOT Design Manual* policies (Iowa DOT, 2019). For drivers traveling northbound, it is the combination of the steep downgrade and right-hand horizontal curve that obscures the line of sight to the intersection. For drivers traveling southbound, the limiting factor for line of sight to the intersection is the crest vertical curve and vertical grade just to the north of the intersection. This combination of vertical curve and grade also limits the sight distance for drivers stopped on the county line road looking north as they wait to make turning movements. One recommendation that would require more analysis in the future would be to modify the profile grade of the highway in the vicinity of the county line road intersection. Raising the grade at the intersection would improve both decision sight distance to the intersection as well as line of sight for drivers on the side road. This would also require grade modification to the gravel roads on the eastern and western sides of the highway. Another possible solution would be to re-align the highway by either lengthening the existing horizontal curves or straightening the alignment by increasing the tangent length between the consecutive horizontal curves. Either of these, however, would likely require additional ROW. Modifying the profile grade is not as severe of a change and could potentially be accomplished within the available ROW.

4.4.5 VISUAL TRAP

There is one visual trap located within the Study corridor traveling northbound near MP 45.5, as detailed in the *IA 150 Super Two Study: Existing Conditions Memorandum* (Jacobs 2023a). The recommended improvements to mitigate this issue are to install delineators and chevron signs that will help drivers' eyes to follow the highway curve.

4.4.6 GUARDRAIL

One location on the Study corridor is noted as potentially in need of guardrail protection. The embankment slope grading at a drainage culvert near MP 28.8 appears to be steeper than acceptable according to *Iowa DOT Design Manual* policies (Iowa DOT, 2019) and may need guardrail installed adjacent to the shoulder. The grading at this location should be reviewed in greater detail in the future to determine the extent of guardrail need.

4.4.7 HAZLETON IMPROVEMENTS

Comments received from stakeholders highlighted some potential improvement needs within the city limits of Hazleton. Comments included the need for better pedestrian crossings, designated school bus stops, sidewalks that run continuous adjacent to IA 150, and reduced speed limits. PCR data from the Iowa DOT, as detailed in the *IA 150 Super Two Study: Existing Crash and Safety Performance Report* (Jacobs 2023b), show medium to high values in three different segments within Hazleton. Crash data do not indicate a specific area of concern regarding the existing conditions of the highway design. It was also noted during the field review that there was limited line of sight for drivers on North Street looking south due to the hillside grading adjacent to the shoulder. A TEAP Study was completed for the intersection of IA 150 and County Road C57 (Hayes Street) and contained intersection improvement recommendations (*IA Highway 150 & County Highway C57 Intersection Study* [Snyder & Associates, 2022]). New left-turn lanes at Hayes Street (County Road C57) are recommended, as covered in the previous section of this report. Marked crosswalks at Hayes Street, as well as other intersection improvements discussed in the TEAP Study, are worthy of implementation in future projects. Existing shoulders and boulevards at Benton Street, Sufficool Street, and South Street are wide enough to accommodate a designated bus stop and should be explored more in the future to determine a location that best serves the local community as well as to verify available ROW.

4.5 NEXT STEPS

Findings, observations, and recommendations developed as part of this Study will serve as the foundation for future projects on this corridor. This Study will not result directly in a programmed “funded” project; however, in some components, that can be addressed over time and incorporated into future smaller-scale projects as they are to be constructed. These recommendations may be modified as they are incorporated into future projects based on changing conditions and new information.

5 REFERENCES

American Association of State Highway and Transportation Officials (AASHTO). 2018. *A Policy on Geometric Design of Highways and Streets*. 7th edition.

HR Green. 2021. *City of Independence Traffic and Safety TEAP Study*.

Iowa Department of Transportation (Iowa DOT). 2005. *Iowa’s Cooperative Snow Fence Program*.

Iowa Department of Transportation (Iowa DOT). 2019. *Iowa DOT Design Manual*.
<https://www.iowadot.gov/design/design-manual>.

Iowa Department of Transportation (Iowa DOT). 2022. *State Transportation Plan: Iowa in Motion 2050*.

Jacobs. 2022. *IA 150 Super Two Study: Planning Framework Goals and Guiding Principles*. December.

Jacobs. 2023a. *IA 150 Super Two Study: Existing Conditions Memorandum*. September.

Jacobs. 2023b. *IA 150 Super Two Study: Existing Crash and Safety Performance Report*. November.

Snyder & Associates. 2022. *IA Highway 150 & County Highway C57 Intersection Study*.

MSA. 2021. *Independence Downtown Revitalization Plan 2021*.

Transportation Research Board (TRB). 2013. *NCHRP Report 745: Left-Turn Accommodations at Unsignalized Intersections*.

APPENDIX A - SMALL GROUP MEETING SUMMARIES

Small Group Stakeholder Meeting - Independence; IA 150 Super Two Planning Study

PREPARED FOR: Iowa DOT
PREPARED BY: Jacobs
MEETING DATE: August 24, 2023

ATTENDEES:	Chad Ingels, State Representative	Krista Billhorn, IA DOT District 2
	Brian Keierleber, Buchanan County Engineer	Cathy Cutler, IA DOT District 6
	Clayton Ohrt, Buchanan County Board of Supervisors	Chas Cahill, IA DOT Location and Environment
	Lisa Kremer, Buchanan County Economic Development	Neal Fobian, IA DOT Location and Environment
	Dave Neiwert, City of Independence (Police)	Ryan Brown, Jacobs
	Brad Bleichner, City of Independence	Kerry Meyer, Jacobs
	Todd Sherrets, City of Independence (Building Official)	Christine Norrick, Jacobs
	Kyle Durant, INRCOG	<u>Remotely</u>
	Dylan Mulfinger, City of Oelwein	Richard Wulfekuhle, Buchanan County Emergency Management
		Chris Hare, Buchanan County Emergency Management

On the afternoon of August 29, 2022, 16 attendees met at the Independence Library, with two joining virtually via Microsoft Teams, to discuss the IA 150 Super Two Planning Study. The general outline of the guided discussion included:

1. Introductions
2. Project Locations and Study Area
3. Purpose of IA 150 Study and this Small Group Meeting
4. Improvements Alternatives under Consideration
5. Study Schedule
6. Stakeholder and Public Involvement Opportunities
7. IA 150 input from attendees' perspectives
8. Next Steps

Kerry Meyer, Jacobs Project Manager, opened the meeting with general overview of the study and introductions.

Ryan Brown, Jacobs Lead Engineer, explained the purpose of the IA 150 Super 2 Planning Study. The corridor extends 28 miles from I-380 to IA 281, near south corporate limits of Oelwein. The study area encompasses three counties -- Benton, Buchanan, and Fayette – and includes the communities of Urbana, Independence, Bryantsburg, Hazleton, and Oelwein. The Study will assess existing conditions and evaluate future transportation needs and identify potential improvement projects to meet future demand. The Study is expected to take approximately 12 months to complete with a target of being complete in summer 2023.

The purpose of the meeting in Independence was to gather input from County and City representatives on the Study and to discuss planned public outreach efforts.

Discussion Topics

Public Involvement/Community Engagement

- Social media is a good way to reach public; there are 5 or 6 different Community Facebook pages covering the area. Residents primarily get their information from social media, primarily through 5 or 6 different Community Facebook groups throughout the area. The City Clerk from City of Independence can coordinate that info and share information.
- Buchanan County Economic Development also has website and social media sites and can post items.
- Newspapers that serve the area include the Independence Bulletin Journal (covers Fayette Co), and The News/Buchanan County Review.
- The County's website is another place where information could be posted.
- Other groups/organizations/ people/ road users that should be added to any information distribution or coordinated with:
 - Jensen Transport in Independence
 - Amish community (work with the bishops)
 - Buchanan Co Tourism
 - Buchanan Co Sherriff – if not on the list, add Scott Buzynski
 - East Penn Manufacturing/Deka in Oelwein
 - Harter Express
 - Pries Enterprises in Independence
 - County Farm Bureaus
 - Wapsi Valley Creamery
 - Benton Co – it was noted that a separate meeting will be held with them
 - Elected officials
 - Crawford Engineering Co

Rural Roadway Issues and Concerns

- There was a question/comment regarding the optics and timing of this Study and improvements to IA 150 that are underway. The City of Independence is in the middle of reconstructing IA 150 through downtown and has already spent millions reconstructing the roadway, and now we are starting this study and asking for input. Further, a bypass study was completed about 25 years ago. There could be negative feedback and questions of whether the work that is being done now will only be torn out later and a concern for use of taxpayer money.
- There was discussion that the intent of the Super Two Study is to look at broader traffic flow issues of the larger corridor. It was also explained that there is no funding for specific improvements, that the Study is intended to guide the DOT and local jurisdictions in prioritizing future improvements, depending on funding availability. There's no set timeline for improvements that might be identified in this Study.
- There has been a longstanding / historic concern regarding snow drifts along some areas of the corridor. DOT has noted these areas during the existing conditions review.
- The area along the Benton-Buchanan County line (A16 Boulevard) has a tight curvy hill to the south and accidents have occurred here. Vehicles travel over the hill and can't see the oncoming curves in the road. The area ices up and snow gets trapped here. Jenson Transport representatives have noted that this is a trouble area for their trucks. It was also noted that there was a fatality at this location (unknown when this occurred)).
- Hazelton issues: through town must have slower traffic, pedestrian crossing warnings, etc. (ADDT is 1,000).
- The Amish community is located west of Hazelton. For the most part, horse and buggies do not tend to travel on IA 150 due to the heavier vehicular traffic on this corridor and the lack of a consistent gravel shoulder (which is preferred for horses). The Amish tend to use other less traveled roads in the area.
- There was discussion about the area near Brandon Corner (old IA 283)/D48/330th Street), which is paved to the west, but not to the east. There's a decent amount of traffic turning towards Brandon. The existing SB right turn lane allows for vehicles to decelerate to make the turn. There is currently no left turn lane for NB traffic, and this could be useful to allow for traffic to decelerate to make the turn.
- 240th Street/27th Street SE is another intersection worth looking into. There's a lot of truck traffic to the quarry as well as DOT traffic to maintenance shop. There are speed limit changes here, and IA 150 traffic is decelerating in this area on approach to Independence.
- Rawley Corner is in good shape – it was noted that at this intersection there's a center turn lane for left turns and deceleration/right turn lane. John Deere and the Chromes Elevator are located east of here.

- A lot of the congestion is due to no passing opportunities. The Independence to Oelwein stretch is traveled daily by people going to Cedar Rapids for work. One suggestion made to help minimize dangerous vehicle passing behaviors was to consider adding signage at various intervals along the corridor, informing drivers that there is a “passing lane ahead”.
- Drivers gun it near the Strawberry Point corner and power plant (near 170th Street) to get ahead or pass vehicles before Hazelton.
- South edge of Oelwein – difficult to make left turn from IA 281 to NB IA 150 / some pavement marking issues between the 4-lane and 3-lane sections of the highway. Traffic heading NB sees the 4-lane section and increases speed. Grain truck traffic utilizes the SB right turn lane to head towards Fairbank. Signage and pavement marking issues with the SB right hand turn lane could be helpful if SB signage was moved farther north, past the trailer park.
- The first horizontal curve on the north side of Hazelton - there are issues with cross centerline traffic (NB is accelerating and southbound is decelerating). This area also ices up near to the adjacent pond. There was a head-on motorcycle crash in the early 2000s.
- A problem area is at the IA 150/C57 (Hayes Street) intersection, where vehicles going east-west on C57 need to cross IA 150.
- A lot of accidents and fatalities are from vehicles crossing the centerline. It was estimated there have been 8 fatal crashes resulting from crossing centerline.
- At D16/Otterville Boulevard (which is paved road to the west, and gravel road to the east), a left turn lane for vehicles traveling north on IA 150 could be beneficial as there’s a lot of traffic turning.
- There’s a need for turning lanes on IA 150 from the US 20 interchange all the way to the Wapsipinicon River. Lots of business development along this stretch of IA 150.
- There are numerous vehicles with Fayette County license plates at the Walmart in Independence (at US 20 and IA 150); many travel there using IA 150.
- Planned development that may impact traffic on IA 150:
 - South of Oelwein (SWQ of 281 and 150) – new 12 home subdivision
 - Anticipating significant growth south of Independence, south of US 20.
- Fontana Park is expanding – this park contains a campground, nature center, trails, lake, etc. There is a trail from Hazelton to Fontana Park, a portion of it parallels the west side of IA 150.

Independence Issues and Concerns

- There was overall agreement that a Super Two roadway is a good, valid concept for this corridor.
- Traffic in Independence is exacerbated by the fact that traffic destined for areas north or south of the city is forced to go through town because there aren't logical alternative interchange exits for vehicles traveling to or from US 20.
- Several attendees suggested that an interchange at W35 and US 20 would help alleviate traffic on IA 150, especially through downtown Independence. This could, in effect, serve as a bypass of Independence.
- Improvements can occur north and south along the corridor, but there will still be a chokepoint in Independence, where vehicles must go through town.
- The two blocks of IA 150 through downtown Independence (between 3rd and 5th avenues) hold the traffic, due to the left turns that are required. Large trucks through downtown must make the two turns; they take up all the space in the turn lane and the signal is too short -- so can't get traffic through.
- Within these two blocks (between 3rd and 5th avenues), some of the businesses/uses include fire station, coffee shop, banks, and Kwik Star. Several of these businesses have pedestrian traffic (banks, coffee shop). Also, removing parking would be an issue. St. John's School is a few blocks north; 8 am NB traffic is due to the school.
- There was a suggestion or question whether parking could be removed in downtown Independence, and pavement be used in other ways, such as adding a turn lane, widening out intersections for truck turns, etc.?
- There was a question about whether the St. John's Church parking lot could be acquired so improvements could be made to IA 150 through downtown Independence. City representatives noted that lot is to be the parking area for apartments that are currently under construction.
- A north/south one way pair would likely be unpopular with the residents of Independence (one attendee stated that his review of research suggests that one way traffic streets cause crime to go up and housing values to go down).
- Difficult to plan a one-way pair for IA 150 as another bridge over the Wapsipinicon River would be needed; there isn't a good opportunity to bring traffic back together to cross the existing bridge. The river bends adjacent to the existing bridge and would limit crossing options. A new bridge would be very costly. Further, the existing bridge is historic (on the National Register of Historic Places), so couldn't be easily replaced.
- Similar concerns with a bypass – it would likely require a new bridge over the river. Concepts were reviewed in the early 2000s.

- A turn lane is the biggest thing needed south of river due to development. A complete 3-lane section south of the river would be beneficial – especially at 17th Street which leads to the industrial park.
- Is there a potential for a right turn lane for vehicles on 3rd Avenue turning right on 1st Street? This could help clear the NB queue as there currently is only one lane NB.
- Pedestrian crossings and refuge islands are needed at some of the intersections in the downtown area (1st Street and 3rd Avenue; 1st Street and 5th Avenue), as there's so much traffic trying to get through that it's tough for pedestrians. However, these pedestrian shelter/islands wouldn't work because of the large volume of oversized trucks traveling through the corridor and maneuvering these turns.
- At 4th Avenue there is increased traffic at St. John's Elementary School drop off/pick up times, with vehicles on 4th Avenue crossing 1st Street (IA 150). A signal at this location could make things worse for IA 150 traffic.
- Eastbound traffic on 1st Street at the 3rd Avenue intersection has no right turn lane, so traffic uses existing parking spaces (one of which is a handicapped parking space) as a turn lane.
- Don't remove on-street parking through downtown Independence. Businesses would not be happy.
- Independence is a strong bike community and follow rules of road; bikers don't typically use IA 150. A popular riding destination is Quasqueton.
- Planned growth / development:
 - Continued growth in Independence
 - South of US 20, there will be homes developed
 - Some in Independence commute to jobs in Cedar Rapids and Waterloo; in addition, people in nearby communities commute to jobs in Independence
 - Pries Aluminum is expanding

Action Items

- It was suggested that Mark or Brien at Crawford Engineering (the City's engineer) would have information about IA 150.
- Richard Wulfekuhle requested a copy of the PowerPoint presentation (bcm@co.buchanan.ia.us).

Small Group Stakeholder Meeting – Fayette County; IA 150 Super Two Planning Study

PREPARED FOR: Iowa DOT
PREPARED BY: Jacobs
MEETING DATE: August 24, 2023

ATTENDEES: Dylan Mulfinger, City of Oelwein and Iowa 150 Coalition
Mallory Hanson - Fayette County
Stephen Horan, Hazleton City Council
Janell Bradley, Fayette County Board of Supervisors
Aaron Detter, Upper Explorerland Regional Planning Commission (UERPC)
Mayor Darin Hayzlett, City of Hazleton
Josh Ehn, Oelwein Community School District
Chief Jeremy Logan, Oelwein Police Department
Lisa Roberts, Fayette County EMA
Krista Billhorn, IA DOT District 2
Cathy Cutler, IA DOT District 6
Chas Cahill, IA DOT Location and Environment
Neal Fobian, IA DOT Location and Environment
Ryan Brown, Jacobs
Carla Mykytiuk, Jacobs
Kerry Meyer, Jacobs
Christine Norrick, Jacobs

On the afternoon of October 11, 2022, 18 attendees met virtually via Microsoft Teams, to discuss the IA 150 Super Two Planning Study. The general outline of the guided discussion included:

9. Introductions
10. Project Locations and Study Area
11. Purpose of IA 150 Study and this Small Group Meeting
12. Improvements Alternatives under Consideration
13. Study Schedule
14. Stakeholder and Public Involvement Opportunities
15. IA 150 input from attendees' perspectives
16. Next Steps

Ryan Brown, Jacobs Lead Engineer, opened the meeting with general overview of the study and introductions. He then explained the purpose of the IA 150 Super 2 Planning Study. The corridor extends 28 miles from I-380 to IA 281, near south corporate limits of Oelwein. The study area encompasses three counties -- Benton, Buchanan, and Fayette – and includes the communities of Urbana, Independence, Bryantsburg, Hazleton, and Oelwein. The Study will assess existing conditions and evaluate future transportation needs and identify potential improvement projects to meet future demand. The Study is expected to take approximately 12 months to complete with a target of being complete in summer 2023.

The purpose of the meeting with Fayette County and the cities of Oelwein and Hazleton was to gather input from County and City representatives on the Study and to discuss planned public outreach efforts.

Discussion Topics

Public Involvement/Community Engagement

- Social media is a good way to reach the public, including the City of Oelwein's and Hazleton's Facebook pages, the Fayette County Sherriff's Office Facebook or webpage, and the Fayette County Emergency Management Agency Facebook page.
- Fayette County Economic Development & Tourism also has a website and Facebook page and can post items.
- The Oelwein Daily Register Newspaper serves the area.
https://www.communitynewspapergroup.com/oelwein_daily_register/
- Fayette County and City of Oelwein's websites and are other places where information could be posted.
- Other groups/organizations/ people/ road users that should be added to any information distribution or coordinated with:
 - Hazleton City Council would share information.
 - Lisa Kremer, Executive Director at Buchanan County Economic Development Commission
 - Larger employers in the project area

Rural Roadway Issues and Concerns

- IA 150 does not meet the transportation needs of the community regarding student transportation. Oelwein Community School District transports around 60 students south of Oelwein twice a day. They have had to move bus stops for safety considerations. Getting buses on and off IA 150 during the morning commute can be troublesome.
 - Bus stops at 110th Street and North and South of Hayes St are of concern. Occasionally bus stops in Bryantsburg but the side street allows for buses to pull off of IA 150.
 - Buses stop traffic in all directions causing problems getting off.
- Morning commute on IA 150 is troublesome; "going through Hazleton is a task morning and evening"; east-west travelers can't cross Iowa 150 safely
 - There are a lot of children/young families in Hazleton.
 - Difficult for buses and other traffic to pull out onto IA 150 at Benton St, Hayes St, and Sufficool St. due to volume of traffic and speed.

- The Mayor of Hazleton owns a business on Main Street and must sit for long periods of time waiting to pull out.
 - Lowering the speed limit would help.
- Fat Boy Saloon (108 Main St S, Hazleton, IA 50641) was mentioned as generating a lot of traffic with special side by side events that create bottlenecks on IA 150 several times during summer months.
- Also motorcycle/Harley rides and car cruises create bottlenecks in Hazleton.
- Basic safety concerns in the IA 150 corridor were noted, including the lack of wider shoulders, rumble strips, and turn lanes. No specific areas discussed but is a general comment to the corridor.
- Pedestrian safety is a concern
 - A lot of people walk on the shoulders of IA 150 from Hazleton to Oelwein (about 1.5 to 2 miles); not a safe walk.
 - Some walk from Hazleton to Oelwein to go to the swimming pool.
 - Some walk to Oelwein due to socio-economic status (lack of personal transportation capabilities) and look for resources such as job, food, and care.
 - Paved shoulder width is too narrow for the bicyclists as they tend to ride on the narrow strip of pavement outside the stripe and off the rumble strip.
- Odd 4-lane segment to the north of the study area was mentioned. This is the transition from 4-lane to 2-lane heading south out of Oelwein.
 - Functions as a speedway as traffic heading south accelerates leaving Oelwein and essentially “launch” themselves towards Hazleton.
 - Improvements could be made at the intersection with 281 where IA 150 goes from 4 lanes to 2 lanes. Drivers in the southbound right lane, which is a right-turn lane only, will travel straight through the intersection ignoring the right turn and create the potential for a collision with traffic stopped on 281. Some treat that lane almost as if it’s a passing lane on IA 150.
- Dangerous passing behavior around large agricultural equipment is a concern.
- The Amish community is located west of Hazelton. For the most part, horse and buggies do not tend to travel on IA 150 due to the heavier vehicular traffic on this corridor and the lack of a consistent gravel shoulder (which is preferred for horses). The Amish tend to cross IA 150 more than travel on it.
 - Amish traffic comes from the west on C57/Hayes St to access IA 150.

- Planned growth / development:
 - Truck traffic from the battery company in Oelwein is expected to increase. Truck traffic travels on IA 150 from the battery company all the way to the interstate (I-380).
 - The Battery factory (East Penn Manufacturing Distribution Center) employs people from 82 different zip codes.
 - IA 150 is paramount to economic success of the area

Action Items

No action items resulted from meeting.

Small Group Stakeholder Meeting – Benton County; IA 150 Super Two Planning Study

PREPARED FOR: Iowa DOT

PREPARED BY: Jacobs

MEETING DATE: August 24, 2023

ATTENDEES:

Trent Kramer, Public Works Director, City of Urbana	East Central Iowa Council of Governments (ECICOG)
Kate Robertson, Executive Director Economic Development for Benton and Iowa Counties	Krista Billhorn, IA DOT District 2
Matt Johnson, Urbana City Engineer, Hall and Hall Engineering	Neal Fobian, IA DOT Location and Environment
Mary Rump, Transportation Director	Anthony Bardgett, IA DOT
	Ryan Brown, Jacobs
	Carla Mykytiuk, Jacobs
	Kerry Meyer, Jacobs

On the afternoon of October 12, 2022, 10 attendees met virtually via Microsoft Teams, to discuss the IA 150 Super Two Planning Study. The general outline of the guided discussion included:

1. Introductions
2. Project Locations and Study Area
3. Purpose of IA 150 Study and this Small Group Meeting
4. Improvements Alternatives under Consideration
5. Study Schedule
6. Stakeholder and Public Involvement Opportunities
7. IA 150 input from attendees' perspectives
8. Next Steps

Ryan Brown, Jacobs Lead Engineer, opened the meeting with general overview of the study and introductions. He then explained the purpose of the IA 150 Super 2 Planning Study. The corridor extends 28 miles from I-380 to IA 281, near south corporate limits of Oelwein. The study area encompasses three counties -- Benton, Buchanan, and Fayette – and includes the communities of Urbana, Independence, Bryantsburg, Hazleton, and Oelwein. The Study will assess existing conditions and evaluate future transportation needs and identify potential improvement projects to meet future demand. The Study is expected to take approximately 12 months to complete with a target of being complete in summer 2023.

The purpose of the meeting with Benton County and the City of Urbana was to gather input from County and City representatives on the Study and to discuss planned public outreach efforts.

On October 13, 2022, Mary Rump (ECICOG) provided comments that are included in the Discussion Topics below.

Discussion Topics

Public Involvement/Community Engagement

- Social media is a good way to reach the public, including the Benton Development Group's Facebook page.
- In addition to local community social media sites, ECICOG also has a Facebook page and would be happy to share info about the study or input opportunities on our page. Send notices to Mary Rump or to Joe Bauer, our Communications Specialist at (joe.bauer@ecicog.org).
 - It would also be helpful to know the target audience, so it can be clear in the post – for instance, “If you're a resident of Benton County, Iowa DOT is looking for your input”
- The Benton Times (<https://bentontimes.com>) and the Benton County Saver Paper (Vinton Today) as well as Channels 2 and 9 from Cedar Rapids were recommended as news sources for the community.
 - Mary Rump googled Vinton area newspapers and found the following page with multiple links that might be useful: <https://www.phillipsfuneralhomes.com/page/area-newspapers>
- Other groups/organizations/ people/ road users that should be added to any information distribution or coordinated with:
 - Kathleen Van Steenhuyse is a Benton County board member who has previously taken an interest in transportation issues. She's a resident of Vinton and has participated in a couple of area transportation-related discussions, including Highway 218 in Vinton and the Highway 30 interchange at Highway 218. She'd be a great non-elected, resident contact to include in future input meetings. Her contact info is: kvsbcc@gmail.com

Rural Roadway Issues or Concerns

- Overall, IA 150 is considered to meet the transportation needs of the Benton County and Urbana community with the City Engineer reporting that there are very few concerns.
 - Urbana is finishing a Hutton Drive improvement that added a northbound right turn lane on IA 150.
 - A southbound left turn lane on IA 150 onto Hutton Drive should be considered.

Planned Development

- A developer is interested in state housing programs to complete a 12-unit development in Urbana. It sounds like the developer is still looking for funding, but if awarded state or federal funding, the development could be underway within the next couple of years.

Action Items

- No action items resulted from this meeting.

APPENDIX B – GENERAL COMMENTS FROM PIM #1

A virtual public meeting was held on January 17, 2023. Of the 220 who visited the website and reviewed the materials, 118 provided input. As part of the meeting, attendees were asked to provide their preference (in favor, leaning in favor, neutral, less in favor, or not in favor) of adding Super Two improvements to the IA 150 corridor. Of those who responded or provided input, the majority either were either neutral (38%) or expressed that they were in favor or leaning towards favoring Super Two improvements (50%).

Along with providing a preference, the meeting participants were able to submit a comment and specify if they would like a response from the IA DOT. Following are the 75 comments that were submitted along with the response, if one was requested. For privacy, only the city address is shown, along with the comment and response.

1. Independence: I found it interesting that Iowa DOT failed to correctly identify the major US highway passing through the project area. But seriously, I would like to see some sort of bypass of the S curves in downtown Independence.
2. Vinton: I would like more information on this project.
3. Hazleton: It would be nice if they could put in some passing lanes. And a bike lane from Hazelton to Oelwein
4. Fairbank: Four lanes for traffic would be awesome as it is such a heavily traveled road with semis and cars alike. In fact, we avoid this route as much as we can due to the heavy traffic. But obviously, it is an important link to 380 due to those high numbers. But because it is all rural, you will find landowners fighting this due to access from side roads. Good luck finding a solution!
5. Independence: How do we comment if we can't get to the study?
IA DOT Response: This link should take you to the self-guided presentation: <https://www.news.iowadot.gov/pim/2022/12/iowa-150-planning-study-to-be-discussed-online.html>. Please let me know if it does not work for you.
6. Vinton: Drive to Independence from south of Urbana for work 5-6 days a week and that stretch of road needs to be improved for emergency traffic and also potentially harsh driving conditions.
IA DOT Response: Thank you for your comments. We agree a road type such as a Super 2 would allow for easier passing opportunities for emergency vehicles.
7. Vinton: Get rid of traffic flow from Urbana to 150 and resume as a STATE highway. Traffic coming from town does not even have to slow down to hit roundabout and traffic traveling south on 150 has to about stop to make the curve. This is a state highway that now yields to town traffic trying to merge. There are bypasses in Nebraska on roundabouts that work pretty slick if the state is set on leaving the roundabout- look into those. There is one south of Blair Nebraska as a good example. Now from 380 north there needs to be an on ramp for 150- nobody seems to stop entering the highway anymore including semis from 380. I have

personally had to pass on shoulder or in median multiple times for vehicles pulling out from Casey's or interstate as they don't pay any attention.

8. Shellsburg: I am wanting to understand more about the potential changes to 150 as I moved into the area about 18 months ago. Appreciate the response.

IA DOT Response: Here is a link to a self-guided presentation about the study. <https://www.news.iowadot.gov/pim/2022/12/iowa-150-planning-study-to-be-discussed-online.html>

We are looking at a Super 2 concept for the corridor which offers intermittent opportunities to pass slower moving vehicles. No funding has been received for any construction at this time. Should you have additional questions or comments after reviewing the presentation, please don't hesitate to reach out.

9. Vinton: I know Hwy 150 is very busy, but the roundabout at Urbana is too small and add a 4 lane. Plus, Independence just put new through, and if you go around Independence, the businesses will hurt and also many of the farms close to the hwy by separating the farms
10. Center Point: Add a passing lane in areas where numerous hills make it difficult to pass safely, and slower traffic can move over into a slow lane.
11. Independence: How many feet of our property will be taken? What happens to the electrical line?

IA DOT Response: This work is a planning study and not a project at this time, so we do not have information on any land takings. We try to limit impacts to homes and businesses with all our projects. One advantage of a Super 2 is it is intermittent widening for passing lanes and not continuous widening such as for a four-lane highway. At this time, no projects have been funded for construction. If funding does become available, there will be additional public meetings to let people know of proposed impacts on their property.

12. Walker: Passing lanes would be great, especially on hills and places where there are several homes. It would also be great if some of the hills could be shaved off to improve visibility.
13. Walker: Please keep the bicycles off of this route, Highway 150 from Urbana to Independence, IA. It is simply too dangerous for bicycling and motorists.
14. Rowley: How will you handle widening the road in areas where homes or businesses are located? Many homes and/or businesses are located in close proximity to the existing roadbed.

IA DOT Response: Depending on the location, we could negotiate with any impacted property owner to compensate them should any land be needed. We try to limit impacts to homes and businesses as much as possible with any project. One advantage of the Super 2 is that it is intermittent widening, not continuous, so there are far fewer impacts to adjoining properties than, say, a four-lane highway. At this time, no projects are currently funded for the construction of a Super 2.

15. Independence: This Super-2 Lane Rural adjustment is a fantastic idea. Both my wife and I commute on 150, and it's concerning to the point where I'd consider trying to work in Independence, where I reside - just to not travel 150. The traffic volume is very frustrating. I can't wait to see this progress and finally implemented. Thank you, Iowa DOT! Definitely

curious about how to handle the IA150 section in Independence. That's a congestion nightmare downtown.

16. Oelwein: Will landowners be compensated for having their land turned into an easement? If so, how is it determined?

IA DOT Response: Yes, there is compensation for an easement to construct a project. It depends on the severity of the impact - such as does it affect planted crops, a fence, etc. A right-of-way agent will contact you should the project become funded to negotiate compensation. No projects are currently funded.

17. Independence: Traffic congestion, bridge load limits, and conditions, accidents.

IA DOT Response: Thank you for your comments

18. Independence: Very interested in possible solutions for traffic issues in Independence due to the amount of truck traffic

19. Independence: Not really needed except south of Independence by Dollar Fresh to McDonalds

20. Walker: Add a lane for side by sides / ATVs / bikes and pedestrians so they don't need to share the same lane with faster traffic

21. Fairbank: This is a much-needed study. Improvements would be greatly appreciated and welcomed. Safety is always a concern on this portion of 150.

22. Out of state; Denver, CO: The biggest issue is freight traffic through downtown Independence. There's no great route through town.

23. Independence: First, I will say that the topic of Highway 150 through downtown Independence is definitely a concern. There's a tremendous amount of semi-truck traffic through town, and it always seems to be a clogging point downtown. Secondly, I would say that a dedicated bike lane from Independence to 380 would be desirable since the Cedar Valley bike trail is just south of 380 on 150. And of course, anything that makes passing and turning safer would be welcome.

24. Independence: There need to be changes made in Independence as well as adding super 2 lanes to this section of 150. Areas of concern in Independence include the downtown section, the exit from the industrial park on 7th St. SE, and the sections that create particular hazards between Independence and I-380, which creates issues as industries are attempting to ship and receive materials and products. All of 150 between Oelwein and I-380 creates a safety hazard for commuters as well.

25. Independence: Would it be feasible to divert traffic on 150 through Independence over two blocks to the east on 3rd St SE, eliminating the need for north and southbound traffic in the downtown area?

26. Independence: I'm dead set against the DOT taking my property to add to the existing highway'. It's already too close to our house and will create more safety concerns and increase noise levels. Also, if this project is railroaded through without the support of the public, how will we be compensated for the property of ours that is taken?

IA DOT Response: We do not have any funding for any projects at this time. We are doing a

planning study first and then will see if we receive funds. We will try to avoid impacting homes and businesses as much as possible. The Super 2 concept is much less impactful than a four-lane road as the need for passing lanes is intermittent and not a continual need like with a four-lane. Should we receive funding, there will be additional public meetings where impacts to property will be shared and discussions with our right-of-way agents.

27. Independence: On 1st E. In Independence, heading east on the 150 N intersection, the 1st parking space crowds the intersection for semi trucks turning right.

28. Independence: Nice briefing, thank you, do you have a timeline decided?

IA DOT Response: Hello - we do not have a time frame for any projects at this time; Should we receive funding, there will be additional public meetings held.

29. Cedar Rapids: I believe that Hwy 150 does need to be wider or two lanes. I don't believe in any different routing or moving the highway to different locations, because the towns need the business from the traffic and essential to where 150 flows now.

Response: Thank you for your comments. We do believe the Iowa 150 corridor can be managed better with a Super 2 rather than go to a four-lane highway at this time. By providing intermittent opportunities to pass, we can help the safety and efficiency of the highway without the expense and greater impacts of a four-lane highway. The traffic volumes along Iowa 150 would likely not warrant expansion to a four-lane as we must balance the needs for capacity for the entire state.

30. Decorah: Along with safety and operational improvements, I'd like to see more wayside rest areas and parks along the corridor. Rest areas (even very simple ones) with restrooms and greenspace are greatly needed and very underdeveloped along Iowa's rural highways.

31. Stanley: Our farming business at the north edge of the proposed upgrade is greatly affected by the efficiency of this roadway. We consider the route through Independence the biggest problem and would encourage looking to bypass the city. The addition of passing lanes and turning lanes, as discussed would be very beneficial. Have you considered diverting 150 onto Hwy 20 to cross the Wapsipinicon River and then going north to join the existing roadway north of Independence?

Response: The purpose of this study was to look at the existing Iowa 150 alignment and identify areas where a smaller Super 2 project could help with traffic flow. We have not really looked into rerouting Iowa 150; I will pass your idea along to the project team for their consideration.

32. Arlington: I fully support expanding Hwy 150 to a Super 2. There are several areas of congested traffic, including, but not limited to, areas between Oelwein and Independence. A new bypass of downtown Independence should be constructed.

33. Oelwein: This is a great project that has been needed for some time. Has any thought been put into 4 lanes from Oelwein to 380 as well as completely bypassing Independence?

IA DOT Response: Good afternoon, XXX, This study will look at Super 2 type elements that can enhance the efficiency and safety of IA 150. The traffic volumes on the highway corridor do not reach the need of a four-lane corridor. This study will map out areas we can construct

passing lanes every few miles in each direction, as well as turning lanes at certain intersections. These improvements help the flow of traffic without all of the impacts of a four-lane or bypass. As a segment of the corridor will be resurfaced, these pre-determined improvements will be incorporated into the design, funding, and construction. We also pave shoulders at 4 to 6 feet wide, and construct rumble strips at the paved shoulders and center line. The study will also provide two alternatives for traffic in Independence. Thank you for submitting your comments and participating in the public meeting. We will have a 2nd one later this year to gather input on the study alternatives.

34. Oelwein: Passing slow traffic on 150 has always been difficult. Creating a super 2 would be a huge improvement.
35. Walker: Your proposed improvements are critically needed. Ever since I380 opened to 150 in August 1984, traffic volume has increased significantly on 150. There are two specific locations I draw to your attention. (1) The 150/380 interchange. There is extensive truck traffic turning at Hutton Drive. (a) A 150 SB left turn lane is needed onto Hutton Drive. There is limited SB sight visibility there; left hand turns need to be separated from SB thru traffic. (b) There needs to be a NB right hand turn lane extending all the way from the 380 NB exit ramp to Hutton Drive. (2) Independence city traffic flow is insufferable! A complete bypass around Independence is warranted. Recall in the 1970s when the US 20 route was to go south of town. There was considerable resistance thinking that traffic would bypass Independence businesses. This never materialized. In fact, city traffic has increased over the decades.
36. Oelwein: Current narrow shoulders make it difficult to pull off roadway if an emergency comes up. Heavy traffic at the Hwy #20 exits can cause backing up on the ramps, have not seen it up to #20 but not uncommon for 4 or more cars to be waiting to complete exit. Congestion along the current route through Independence cause an hinderance of traffic flow. Large vehicles have difficulty making turns. Seems to be quite a rise over the railroad tracks north side of town. Junction of #150 and C57/Hayes in Hazleton can be a problem, turning traffic off of #150 can back up due to traffic and the parking along #150 in Hazleton hinders visibility of oncoming traffic. With the planning, does traffic count support bypass of these towns?

IA DOT Response: Thank you for submitting your comments. They are similar to our observation and from other citizens. This study will review all comments for consideration on future improvements for safety and efficiency of the corridor. The traffic volumes do not warrant a bypass of Independence or Hazelton despite the challenges. We have completed an engineering study of Hazelton and are working with the city on next steps. Thank you for participating in the online public meeting. We will have another one later this year for input on the recommendations.

37. Independence: This would be a good time to consider a by-pass, which in my opinion, cross Hwy 20 at the Quasky Diagonal with on and off ramps to change to Hwy 20. In high flood waters could go from east side to west side of Independence instead of going to Winthrop.

IA DOT Response: Good afternoon, This study will look at Super 2 type elements that can enhance the efficiency and safety of IA 150. The study is not reviewing a bypass at this time. This study will map out areas we can construct passing lanes every few miles in each direction, as well as turning lanes at certain intersections. These improvements help the flow of traffic without all of the impacts of a four lane or bypass. As a segment of the corridor will be resurfaced, these pre-determined improvements will be incorporated into the design, funding, and construction. We also pave shoulders at 4 to 6 feet wide, and construct rumble strips at the paved shoulders and center line. The study will also provide two alternatives for traffic in Independence. Thank you for submitting your comments and participating in the public meeting. We will have a 2nd meeting later this year to gather input on the study alternatives.

38. Independence: Passing lanes are very much needed. Round about near 14th st northeast independence and 150 and one at enterprise drive would be great. A bike trail near 150 would be nice.

39. Rowley: I like the idea.

40. Independence: The road needs to be much wider, similar to highway 13 in Delaware county. This allows for safer passage of farm equipment driving down the road.

41. Independence: There need to be WIDER WIDTH SHOULDERS on this entire length of roadway. As it is, the shoulder width is very narrow and prohibits any vehicle from moving entirely off the traveled lane! This is dangerous for such a high-traffic road such as IA 150. Also, wide shoulders would allow Amish horse and buggy traffic to use this roadway.

IA DOT Response: Good afternoon, Regarding paved shoulders along IA 150, A future project would include 6 foot paved shoulders with rumble strips. Thank you for participating in the study and for sending us your comments.

42. Ames: Comment: In downtown Independence, consider three roundabouts. One at 1st Street and 3rd Avenue. Second one at 1st Street and 4th Avenue. Third one at 1st Street and 5th Avenue.

IA DOT Response: Thank you for your input. The Study team will consider all comments as they work through feasible alternatives. We will hold another public meeting later this year asking for input to the draft alternatives. We appreciate your participation.

43. Hazleton: Traffic does not slow down enough coming into Hazleton the way Highway 150 is now. Semi traffic from East Penn and the ethanol plant is terrible. There is an engine brake ordinance in Hazleton now and the truckers do not obey to it.

IA DOT Response: Good afternoon, I understand from your comments you are concerned with speeds of traffic through Hazelton, high volume of trucks, and the engine brake ordinance. The brake ordinance and speeding are a law enforcement issue. We are working with the city of Hazelton on ideas such as installing painted cross walks that may visually help to slow drivers down. Thank you for participating in the study and taking the time to submit comments.

44. Independence: When will a curb and gutter work be started in front of my property
IA DOT Response: Hi - we can see if the City is interested in partnering with XXX on installing curb and gutter when a project gets funding for this location. Design details can be worked on at a later date.
Additional Comment: So what you are saying that this will not happen this year yet... what about putting in a turning lane for vehicles to turn left going to Norbys farm fleet store or Larson Construction or Pries industry ???
IA DOT Additional Response: Good morning, A curb and gutter project will not happen this year. A three-lane corridor through this section is a possibility for this highway section and may be included in this study's alternatives. Curb and gutter will require cost sharing from the city as well as long term maintenance. Should a construction project begin in this section, the storm sewer and related curb and gutter will be part of the discussion for better drainage. Thank you for participating in the IA 150 corridor study. We will have a second public meeting later this year for input on the alternatives developed.
45. Independence: Will this study/project consider children with special needs who live close to Highway? (i.e. reducing speeds, controlled intersections, crosswalks)
IA DOT Response: Good afternoon, Projects that have existing sidewalks within a city will include pedestrian ramps at all cross walks. As you know, the speed limits are lower through a city than a rural area. These speeds are agreed upon between the city and the DOT on state highways, and enforced by law enforcement. Intersection control is based on a traffic control device, such as a 4-way stop or traffic signal, that meets warrants. A number of warrants must be met to install a change to an intersection. This is based on nationally utilized traffic engineering standards. If you have specific locations in mind, please submit them. Thank you for participating in the study.
46. Hazleton: The section North of Independence for 5-6 miles has minimal shoulder space and deep ditches, this is a hazard that needs to be addressed, allowing for more shoulder space for breakdowns and/or traffic stops.
47. Hazleton: Traffic can be an issue trying to get through Independence, you should look for an alternate route to make it easier to navigate Independence
48. Independence: Need stop lights or turning lanes at, near the industrial sites, farm & fleet, fareway, and dollar tree.
49. Independence: My only experience with a Super 2-lane highway is between Camdenton and Lebanon, Missouri on Highway 5. It seems to be a good design, allowing slower drivers to slide over to the right lane to allow faster drivers to pass safely in the distance allotted, usually several miles with lots of signage of lane narrowing. The turning lanes are also a good idea, hopefully avoiding a rear end crash or two. Unfortunately, this may lead to some drivers thinking they may freely speed with anyone slower should surrender the passing lane to their autobahn needs.
50. Independence: As far as autobahn drivers, several years ago I read a proposal about restructuring the highway 20 curve Eastbound into Dubuque, Iowa to attempt to slow drivers

down in the hazardous areas. This restructuring was going to cost the state 22 million dollars to slow drivers down. I sent a letter to the head DOT engineer of the project to suggest that several traffic cameras could accomplish the goal without the 22 million dollar outlay and bring a considerable amount of fines into the treasury without costing the state of Iowa a plugged nickel. I was pooh-poohed off because I was merely a taxpayer of the last 50 years and obviously knew nothing of how government works.

IADOT Response: Here is the response that was sent to you in 2016: You mentioned the use of speed enforcement cameras as a means of reducing the speeds and generating revenue in this area. Iowa law does not allow for automated traffic enforcement cameras as a means of issuing moving violations. Cities, such as Cedar Rapids, are using cameras as a means of issuing citations for violation of a local ordinance (similar to a parking violation). These are not considered a moving violation, and the Iowa DOT has no legal authority to issue this lesser ordinance violation. Nothing has changed regarding these facts. The Iowa law would have to be changed by the Legislature and Governor.

51. Independence: Extending Fareway turning lane in Independence south to highway.

52. Independence: This has been a long time running...this is a opportunity to make the 150 corridor a much safer road for the future....the amount of traffic that travels this portion of 150 has always been a accident prone roadway with all the new businesses that use trucks to haul there products along with the employees of the new businesses this is a must do project...I'm really interested in what they're looking into for alleviating the congestion between 3rd and 5th Ave in Independence as i live in that area of the study...plus the passing lane roads between independence and Hazelton...are there going to be roadway right of way problems with the existing properties on that corridor...im interested about this project...i will keep abreast of the plans and make other comments in the future. Thank you for including us stakeholders in these future road plans

53. Out of State, Aurora, Colorado: IA 150 intersection with 170th St seems awkward for traffic exiting and entering 150 and potentially dangerous.

54. Hazleton: Between Independence and Hazleton the shoulders do not allow for stalled vehicle to get off the road. Wider paved shoulders would help with stalled vehicles that now close down the lane they are in. The gravel shoulders now become soft and cause vehicles to get stuck or go in the ditch.

Response: Regarding paved shoulders along IA 150, A future project would include 6 foot paved shoulders with rumble strips. Thank you for participating in the study and for sending us your comments.

55. Independence: I feel that this is a good project. I am particularly concerned about the impact on the city of Independence and the traffic flow thru it.

IA DOT Response: Called the commenter (by phone) and he feels the recent detour for IA 150 construction on 5th Avenue worked well and may be a way to ease congestion of traffic in the downtown. he also mentioned the Quasqueton diagonal roadway as a route for trucks and build an overpass over US 20 for it.

56. Out of State, Kennesaw, GA: I approve and support IowaDOT's IA 150 Planning Study. Passing Lanes should definitely be added to IA-150 from north of I-380 to IA-281.

IA DOT Response: Thank you for supporting the Super 2 concept along this highway corridor. Passing lanes will be proposed at feasible locations for each direction of travel. We will have a second public meeting later this year to receive input on the alternatives from this Study. Thank you for participating in this meeting.

57. Hazleton: Better snow plowing on 150 north between Independence and Hazleton.

58. Hazleton: It would be nice if each intersection along the road had a light to make it easier to find the road. In some places a turn lane is used to get off the road so cars following can keep going.

59. Independence: I am all for anything that improves speed and safety of travel along the highway. My only concern will be if there is a bypass or change through Independence as there are many small downtown businesses that rely on the traffic. An adjustment that allows current businesses to maintain and/or redevelop/rebuild would be welcomed. I am slightly concerned that the study was done during the spring/summer of this year when the road through Independence was under construction and many people were taking alternate routes and avoiding portions of the highway which would give immaculate results.

60. Hazleton: 150th St. Intersection turning lanes?

IA DOT Response: Thank you for suggesting turning lanes at the IA 150 and 150th Street intersection at Bryantsburg. This study will review traffic volumes and turning movements to determine if new turning lanes are warranted or if existing ones could be lengthened. If such improvements are found necessary, they would be incorporated into a future design and resurfacing project. This study is also examining areas that could have passing opportunities in each direction. Any future resurfacing project will include paved shoulders and rumble strips. We appreciate your participation in this study. All comments will be reviewed. We will have a 2nd public meeting later this year to gather input on the study recommendations.

IA DOT Additional Response: The Turning Lanes would be a major Safety concern because of all the Campers that turn off of Highway 150 on to 150th St that goes to Morwood Campgrounds a quarter mile off Highway 150. Traffic gets Dangerous every Spring until Fall. The intersection will be reviewed during a future project to determine if turning lanes are warranted.

61. Hazleton: How soon before any construction starts on this project?

62. Independence: I have farmland north of independence along 150, so I have to travel the highway with farm machinery. I have had many close calls with vehicles trying to pass either in a no passing zone, or when I make left turns to exit the highway. I travel between 14th street NE in independence to 1919 Jamestown Avenue or 185th street to get to the land I operate. I don't know if a passing lane would work at those locations because of the width of the farm machinery that I have to navigate. I would be interested in attending a small group meeting so different options can be discussed. Thank you for your attention.

IA DOT Response: Thank you for your input XXX. We will be looking at areas where passing opportunities could be constructed. A typical passing-lane spacing of 4 to 5 miles can result in a set of passing lanes, one for each direction of travel. These would be between communities in the rural areas. They allow faster vehicles to pass slower moving vehicles without needing to cross into the opposing lane of traffic. In urban areas, a three-lane roadway with a center two-way left-turn lane could be recommended. In addition, other improvements that could be included to supplement the Super-2 highway features include rumble strips, improved/wider shoulders, and turn lanes at intersections. Thank you for participating in the public meeting. We will be having a 2nd one later this year for input on the study recommendations.

63. Independence: Would love to see a turning lane made for popular turning areas along the highway, and larger/wider paved shoulders would be great, especially with a heavy farming and semi route that this is. Independence I think like's getting the traffic for downtown shops for out of towners, but it's horrible for semis.
64. Winthrop: East Buchanan Telephone Cooperative (EBTC) is concerned regarding three specific locations: 1) Within Independence, we meet with Independence Light and Power and Heartland Technologies of Jesup as part of an integral fiber optic ring that serves nearly a dozen communities. That connection could be in jeopardy depending on the details of the route through the City of Independence - keep us posted so we can provide input and further details to work jointly on this. 2) EBTC fiber optic cable crosses Hwy 150 at 140th Street, and 3) EBTC fiber optic cable crosses Hwy 150 to access the cellular tower on the east side of Hwy 150 north of Jaspers RV - approximately 1/2 to 3/4 mile north of 140th Street.
65. Manchester: Review "Landowners Driveway widths" for safety
66. Out of State, Pekin, Illinois: Interested in direct driveway access from center west side of farm for semi trucks of grain. Existing driveway is poorly located for seeing traffic coming over the hill, especially with large trucks.
67. Rowley: Travel through Independence is very congested and traffic is routed very poorly there for Hwy 150. I travel this corridor weekly. I also own a business on Hwy 150 south of Independence and this travel route is used by farmers who should be considered.
68. Independence: Passing lanes would improve highway traffic flow, but it won't address the huge increase in semi traffic that has been seen between Independence and Oelwein over the past 5 years. With the poor routing through Independence, and lack of synchronized traffic lights, all this will do is get trucks into Independence faster, but create longer lines of traffic. There really needs to be a study on an Independence bypass for large vehicle traffic. This type of traffic isn't stopping to shop in Independence, so a bypass shouldn't impact local businesses, significantly. Also, during planting and harvest season, there are always long lines of traffic with the larger equipment being transported North of Independence. There is just no other good option for the heavy equipment in this area. An alternate route would help solve this issue. Passing lanes and wider shoulders would definitely help with the safety

issues around vehicle breakdowns and unsafe passing that I see every day for Independence to Oelwein traffic. Shoulders have very little room and steep drop-offs.

69. Walker: IA 150 should be east of Olwine & east of Hazlton & Independence & come on to 380 at the Urbana exit this would take most of the big trucks out of towns

70. Clear Lake: agree that multiple passing lanes are needed along this corridor.

IA DOT Response: Thank you for sending your comments. The study will look for locations that may allow a passing opportunity in each direction along the rural corridor. While we do not have specific projects funded at this time, future projects will include elements recommended from this study including turning lanes, paved shoulders with rumble strips, and the passing lanes. We appreciate your participation in the public meeting.

71. Walker: I do believe that Highway 150 needs wider shoulders in places especially from the Walker turnoff to almost Interstate 380. There has been many times that a car has been broken down and it is pretty risky passing them on the hill when they cannot fully pull their vehicle off of the roadway. When will we know what properties will be involved with the project?

IA DOT Response: Thank you for sending your comments about shoulder width. The recent resurfacing project did pave the existing shoulders 4 feet wide from Independence to Urbana, then 3 feet wide from Urbana south to Vinton. Our standards for resurfacing projects include paving the shoulder width that is allowable up to 6 feet and adding rumble strips. To allow for wider paved shoulders along this highway, a construction project would have to widen the road bed plus new ditching and extend all culverts. That type of work would require right of way and significant funding. This planning study is gathering potential locations for passing lanes and turning lanes for future projects. While we do not have projects planned at this time, these study elements will be designed into a future project. We are gathering input during this phase of the planning study and we will have another public meeting this year to gather input on the recommendations from the study. Then we hope for funding of projects in the future. At the time of design for a project, property owners would be contacted with the proposed changes to the right of way. So as you can read, we are a long time out from knowing specific properties. Thank you for participating in the planning study and the public meeting.

72. Independence: What are you doing??

IA DOT Response: Good afternoon XXX, I just wanted you to know I checked the website after our conversation and that your registration and email worked.

73. Independence: I believe 150 needs to be widened but not bypass Independence A new bridge should be built in independence over the Wapsipinicon River south of downtown! With the grain truck traffic to Cedar Rapids and Fairbank Iowa.

IA DOT Response: Thank you for submitting comments on the IA 150 planning study. When we develop a resurfacing project along IA 150 in the rural sections, we will include any turning lanes and passing opportunities developed from this study. We also pave the shoulders to 6 feet and include rumble strips. We are not planning a bypass of

Independence, but we are looking at how to alleviate some congestion. The bridge over the Wapsipinicon will be replaced when it is at the end of its service life and it will meet new bridge standards, having 8 to 10 foot wide shoulders next to the travel lanes. Thank you for taking the time to participate in the public meeting.

74. Independence: I believe this project is long overdue. I am excited for the benefits it will bring to Independence and the surrounding communities as 150, in its current state, is extremely dangerous and congested.

75. Vinton Newspaper: Mr. XXXX called about the IA 150 PEL study and what it entailed. We discussed passing opportunities, turning lanes, and improvement alternatives in Independence. Mr. XXXX will use the map from the PowerPoint on our public meeting website as a graphic in his news article. He stated his news company has readership in all cities along IA 150 from in Calmar to Vinton.

Traffic Concerns and Safety: Several comments express concerns about traffic congestion, accidents, and safety issues along Highway 150. Residents are worried about the impact of heavy truck traffic, bridge load limits, and the need for improvements to ensure safety on this corridor. Some suggest adding lanes, diverting traffic, or implementing solutions to address these issues. They emphasize the importance of addressing congestion and improving the road for emergency traffic.

Property Compensation and Impact: Questions and concerns are raised about property owners who may be affected by the project. People want to know if they will be compensated for land turned into an easement and how compensation will be determined. Some residents also worry about the project's impact on their properties, including increased noise levels and safety concerns.

Support for Super 2 Concept (Independence, Cedar Rapids): Several comments express support for the Super 2 concept, which involves widening the highway to two lanes with intermittent passing opportunities. Supporters believe this approach can improve safety and efficiency without the expense and greater impacts of a four-lane highway.

Specific Location Concerns: Specific concerns were related to certain sections of Highway 150. Residents mention problem areas in Independence, including the downtown section, the industrial park exit, and hazardous sections between Independence and I-380. Others suggest adding lanes for side-by-sides, ATVs, bikes, and pedestrians to separate them from faster traffic. In Decorah, there's a request for more rest areas and parks along the corridor.

Timeline and Project Funding: Inquiries about the timeline for the project and whether funding has been secured.

APPENDIX C - GENERAL COMMENTS FROM PIM #2

APPENDIX D – PMT MEETING SUMMARY

PMT Meeting Summary; IA 150 Super Two Planning Study

PREPARED FOR: Iowa DOT
PREPARED BY: Jacobs
MEETING DATE: August 24, 2023

ATTENDEES:

Brad Bleichner, Mayor of Independence	Krista Billhorn, IA DOT District 2
Matthew Schmitz, City of Independence	Cathy Cutler, IA DOT District 6
Brian Keierleber, Buchanan Co Engineer	Gary Harris, IA DOT
Bradley Bryan, IA DOT	Ryan Brown, Jacobs
Shelby Ebel, IA DOT	Kerry Meyer, Jacobs
Greg Karssen, IA DOT	Christine Norrick, Jacobs
Pedro Leanos, IA DOT	Marie Glynn, Jacobs
Tom Lovan, IA DOT	Josh Miller, Jacobs
Phil Mescher, IA DOT	Carla Mykytiuk, Jacobs
Christine Schwake, IA DOT	
Samuel Sturtz, IA DOT	

A Project Management Team (PMT) meeting was held August 9, 2023 to discuss the IA 150 corridor. In addition to Iowa DOT Divisions, representatives from the City of Independence and Buchanan County were invited to review the alternatives developed for Independence. The general outline of the discussion included:

- Introductions
- Independence Alternatives
- IA 150 Corridor Improvements
- IA 150 Super Two Concepts

Introductions

Gary Harris, IA DOT opened the meeting with a general overview of the study and introductions.

Independence Alternatives

Marie Glynn, Jacobs provided a brief overview of the study and then presented the alternatives development process and the 10 alternatives developed for Independence. See attached slides.

Prior Studies

Greg Karszen, IA DOT noted that a 2002 TEAP showed an option that would divert traffic along 5th Avenue.

Brad B (Mayor) noted that the City recently used 5th Avenue as the 150 detour route but thought this wouldn't be desirable as a permanent route for 150 traffic. This would bring traffic right by a park and municipal pool, then through a residential area. While the detour was in place for IA 150 stakeholders/residents requested that a permanent solution not be near the new water park, park, or homes. Following is an image from the TEAP study that was shared at the meeting:

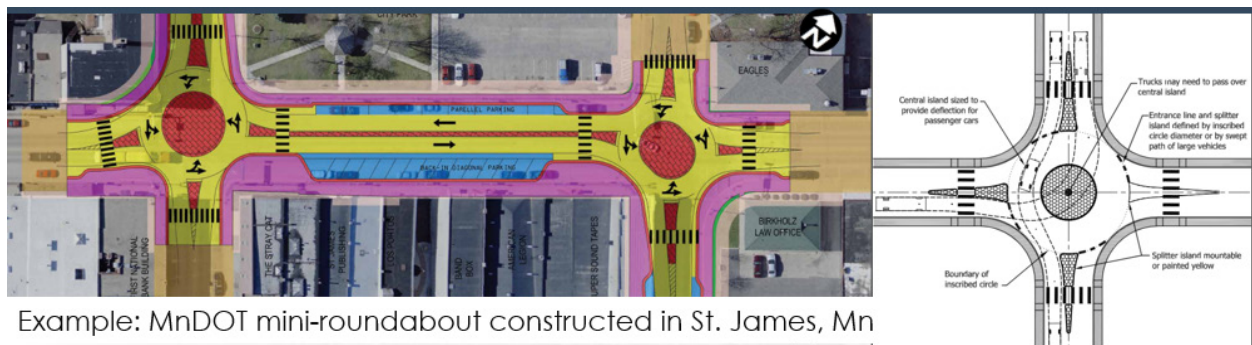


Parking

There were questions regarding on-street parking and whether it would have to change under these various one-way options. Marie and Ryan Brown, with Jacobs, explained that, generally for all alternatives, the idea is to maintain the existing roadway dimensions, and keep parking as-is.

There is also a city owned parking lot off 2nd St NE that will potentially see an increase in traffic with the new residential development that is being built.

It was noted that with some alternatives, there may be potential to convert from parallel to diagonal parking, like what was done in the St. James, Minnesota example (below).



Example: MnDOT mini-roundabout constructed in St. James, Mn

Downtown Land Use Development

Brad B (Mayor) explained that there is a new 11-unit residential development being built in the downtown and the City will be providing parking in the lot that they own off 2nd St NE. He emphasized that the City would not want to lose any parking. He also noted that the City is expanding the existing Fire Station to the south. The expanded station will have a new driveway apron/exit to 4th Ave SE.

Alternatives

General Comments Related to all of the Alternatives

- There was discussion about the possibility of creating a closed street/pedestrian only street on 4th Ave between 1st and 2nd streets. The mayor noted that because the planned expansion of the fire station will create a new driveway from the station to 4th Ave, that probably wouldn't work.
- Brian Keierleber (Co Engineer) had questions about traffic control, and whether stop signs would remain. Jacobs explained that traffic control wasn't investigated and expected that would be part of a preliminary engineering study.
- There was consensus that moving IA 150 traffic to a residential street was not preferred, especially due to the high volume of trucks.

Alternative 1

Alternative 1 creates two one-way pairs. IA 150 NB traffic would use 1st St E and 5th Avenue NE, and SB would use 2nd St NE and 3rd Avenue NE. 1st St through downtown would be converted to one-way.

Regarding diverting traffic by St. John Catholic Church, located on the northeast corner 2nd St NE and 4th Ave NE (which occurs under Alternatives 1, 2, 4, 5), Brian (Co Engineer) mentioned a project in Pocahontas IA where high traffic volumes caused seismic/vibration concerns and issues for a nearby church.

Alternative 2

Alternative 2 shifts IA 150 SB traffic from 1st St to 2nd St NE, one block north. Portions of 5th Ave NE, 3rd Ave NE, and 2nd St NE would be converted from two-way to one-way travel. 1st St through downtown would remain two-way.

There was agreement that this alternative, which maintained two-way traffic along 1st St E and relocated IA 150 SB to 2nd St NE, a commercial street, was preferable to other alternatives.

This alternative would route traffic along 2nd St NE, where St. John Catholic Church is located. As noted under Alternative 1, Brian K (Co Engineer) referred to a project in Pocahontas IA where high traffic volumes caused seismic/vibration concerns and issues for a nearby church.

Alternative 3

Alternative 3 shifts IA 150 NB traffic from 1st St to 2nd St SE, one block south. Portions of 5th Ave NE and 3rd Ave NE would be converted from two-way to one-way travel, but 1st St E and 2nd St SE would remain two-way.

There was agreement that the benefit of this alternative was that it created the shortest length of one-way pairs and maintained two-way traffic along 1st St. However, as the City is expanding the existing Fire Station and it will have a new driveway/exit to 2nd St SE. This alternative would create a challenge for firetrucks entering/exiting the station.

Alternative 4

Alternative 4 shifts IA 150 NB traffic south one block, to 2nd St SE, and SB traffic one block north, to 2nd St NE. Portions of 5th Ave NE and 3rd Ave NE would be converted from two-way to one-way travel, but 1st St E would remain two-way.

Alternative 4 is not preferred since it moves IA 150 one-way traffic to a residential street (2nd St SE). It was noted that this residential street has been used as detour for IA 150, but would not be desirable as a permanent route. Also, the City is expanding the existing Fire Station to the south and will have a new driveway/exit to 2nd St SE. This alternative would create challenges for firetrucks entering/exiting the station.

This alternative would route traffic along 2nd St NE, where St. John Catholic Church is located. As noted under Alternatives 1 and 2, Brian K (Co Engineer) referred to a project in Pocahontas IA where high traffic volumes caused seismic/vibration concerns and issues for a nearby church.

Alternative 5

Alternative 5 shifts IA 150 NB traffic south two blocks, to 3rd St SE, and SB traffic one block north, to 2nd St NE. Portions of 5th Ave NE and 3rd Ave NE would be converted from two-way to one-way travel, but 1st St E would remain two-way.

Both 3rd St SE and 5th St SE are residential streets, therefore, this alternative is not preferred since it moves IA 150 traffic to residential streets and converts portions of them to one-way travel.

This alternative would route traffic along 2nd St NE, where St. John Catholic Church is located. As noted under Alternative 1, 2, and 4, Brian K (Co Engineer) referred to a project in Pocahontas IA where high traffic volumes caused seismic/vibration concerns and issues for a nearby church.

Alternative 6

Alternative 6 shows multiple options to move traffic to east-west streets both north and south of downtown. These combinations of alternatives are not preferred since they are outside of the downtown commercial area and the community's revitalization zone, would require Iowa DOT to assume jurisdiction over the greatest length of new roadway, would move IA 150 one-way traffic onto residential streets, and would relocate truck traffic near community amenities (the park, pool, and water park).

The 2002 TEAP Study (detailed under “Prior Studies”, above) is like an Alternative 6 variation, but potentially involved the construction of a new bridge. This alignment with the new bridge crossing will be added to Alternative 6.

Alternative 7

Alternative 7 reduces travel along 1st St between 3rd Ave and 5th Ave by extending the one-way pairs east-westerly, across the river and forcing travel diversions for both IA 150 traffic and D-22 traffic.

Brad B (Mayor) stated that this alternative would require significant investment by the City. In addition, based on the travel patterns, the south bridge is already being used as a bypass of downtown. It would not be beneficial to change it from two-way to one way EB, forcing more traffic into the downtown area.

Alternative 8

Alternative 8 extends the one-way pairs east-westerly, across the river and forces travel diversions for both IA 150 traffic and D-22 traffic. 1st St would become one-way WB, 2nd St would be one-way EB, and small segments of 2nd Ave, 3rd Ave, and 5th Ave would also become one-way roads.

Brad B (Mayor) stated that this alternative would require significant investment by the City. The alternative converts 1st St E to one-way WB between 2nd St W and 3rd St E. Since this includes several blocks within the downtown, he’s concerned about changing traffic and access to those businesses.

Alternative 9

Alternative 9 considered placing mini-roundabouts at 1st St/5th Ave, and at 1st St/3rd Ave intersections.

There was discussion about the roundabout option, and whether turning radii would be wide enough to accommodate trucks. Marie agreed that, given the amount of truck traffic through downtown, it would be difficult to accommodate with roundabouts. Once it was determined that the travel demand exceeded the capacity of the mini-roundabout, the alternative geometry was not developed any further.

Alternative 10

There was a discussion about Alternative 10 (Bypass). It was noted that this option generally exists today (the Winthrop exit), and it primarily provides a benefit for US 20 rather than IA 150. It was also noted that the downside of this alternative is that it would require a new interchange on US 20. Some voiced support for Alternative 10, stating it offered some real advantages.

Brian K (Co Engineer) put forth a variation on Alternative 10, suggesting that from US 20, exit at W35, but rather than staying on that until D22 and then traveling west on D22, continue further northeasterly to NE 14th St or even 200th St to then reconnect with IA 150. This would fully remove traffic from Independence.

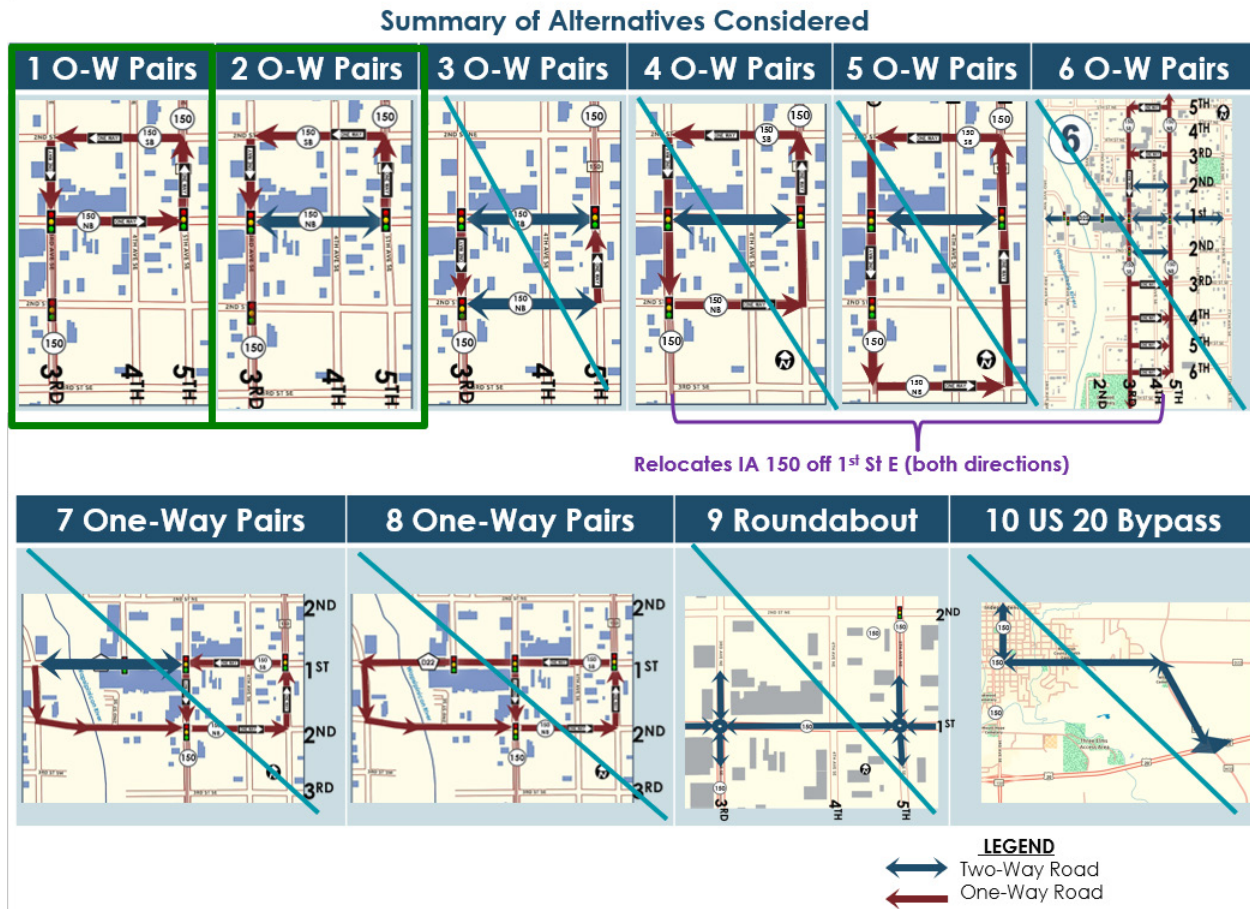
There was further discussion about whether bypasses hurt or helped downtowns. Some research shows that loss of pass-through traffic can hurt businesses; while other research suggests that if there's too much traffic, people won't stop for fear of not getting back on the road.

Gary Harris, IA DOT noted that the DOT appreciates comments on bypass options, but studying a bypass wasn't the scope of this study.

Alternative Recommendations

Alternatives 1 and 2 are identical except that Alternate 2 retains two-way travel on 1st St (under Alternative 1, it would become one-way). Both the Mayor and City Manager agreed that Alternative 2 is preferred. It was suggested that Alternative 1 could also be retained for comparison purposes.

The image below shows the alternatives that were eliminated and those that were preliminarily agreed upon (Alternatives 1 and 2, with green box around them).



Independence Next Steps

- Gary noted that IA DOT would like to have a Public Meeting in late October to present this to the community. Subsequent to this meeting, Iowa DOT decided to stay with a virtual meeting to present the final Vision Document and to recommend the City of Independence hold an in-person meeting to present the alternatives in the near future.
- Brad noted that it will be good to show the community the options that were developed/considered.

IA 150 Corridor Improvements

Marie Glynn walked through the various corridor recommendations through the corridor. These were developed based on a combination of the existing conditions analysis which identified deficiencies, intersection turning movement analysis, and the Super Two passing lane study. After a preferred Super Two passing lane strategy has been identified, the exhibits will be updated to include the location of the recommended passing lane locations.

The corridor recommendations (attached) were presented. A few key recommendations were:

- Upgrading existing narrow shoulders (3 to 4 feet wide) to full width per Super Two design criteria
- Regrading ditches as needed due to shoulder widening
- Installing minor and major right turn lanes, upgrading from minor to major right turn lanes, and adding left turn lanes
- Installing snow fences in areas in spot locations

There was a question at 100th Street, whether the proposed right turn lane would create shadowing concerns. Jacobs will revisit the geometry in that location.

- Brian K (Co Engineer) noted in the MS Team chat that he agrees with the proposed improvements at Otterville Boulevard. He has received many complaints at that location over the years; he stated that left-hand turn lanes will improve safety.

IA 150 Super Two Concepts

Ryan Brown walked through the three options for creating passing (Super Two) lanes through the corridor. He explained criteria and areas where it might not be as feasible to add passing lanes, including:

- Areas where there are concrete box culverts
- Areas where there are bridges
- 4-legged intersections with paved approaches
- Within one mile of interchange ramps
- Areas where there are more than 6 access points per mile
- Within community boundaries

He also explained that the segment of IA 150 between Independence and the project's north limit (100th St) has a set of reverse curves that limit location and spacing of passing lanes for the north half of the project. He noted that the general criteria is to place passing lanes every four to five miles.

The key difference between the three options developed is the number of passing lanes that are accommodated on the corridor.

Super Two Alternative 1

- Maximizes the total number of passing lanes that can fit in south section (between I-380 and Independence) while maintaining a relatively uniform spacing.
- Allows for five northbound and five southbound passing lanes.
- Passing lanes arranged in a "tail to tail" configuration.
- The distance between Super Two passing lanes ranges from 4.3 to 5.7 miles under this option.

Super Two Alternative 2

- Built off Alternative 1 to put some distance between passing lanes while also maximizing the overall number within the corridor.
- Southbound passing lane located at the Benton-Buchanan County line to overlap steep vertical grade on the highway.
- Allows for five northbound and five southbound passing lanes.
- Passing lanes arranged in a "separated" configuration.
- The distance between passing lanes ranges from 3.6 miles to 6.9 miles with this option.

Super Two Alternative 3

- Designed to avoid existing infrastructure features such as box culverts and bridges.
- Has one less northbound passing lane between I-380 and Independence. Allows for four northbound and five southbound passing lanes.
- Below the 3.5-mile minimum separation criteria north of Independence. The distance between passing lanes ranges from 3.1 miles to 9.1 miles.

A couple questions for consideration:

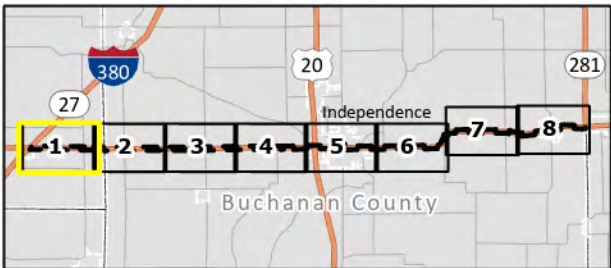
- Is the goal to get as many passing locations as can fit within the space available?
- If the DOT is intending to upgrade shoulders to 10' comprehensively, then maybe following criteria of avoiding culverts, bridge, etc. is not necessary.

Greg K asked if the Super Two exhibits could add proposed turn lane information (shown on the concept plan exhibits). It was agreed that Jacobs could add this information.

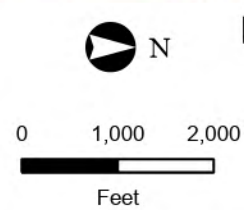
Action Items

- Meeting summary notes to be prepared and provided with the presentation materials that were shown.
- If anyone has further comments, please send an email – the DOT wants to keep the dialog going.

**APPENDIX E - DESKTOP ENVIRONMENTAL CONSTRAINTS WITHIN THE STUDY
AREA**



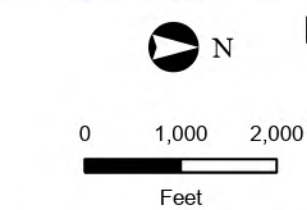
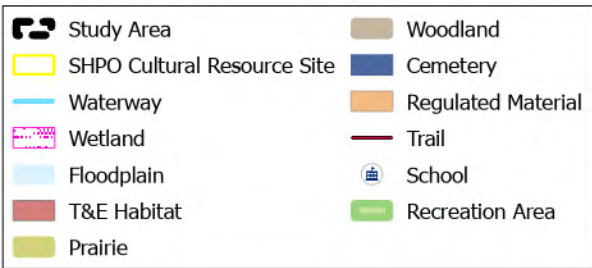
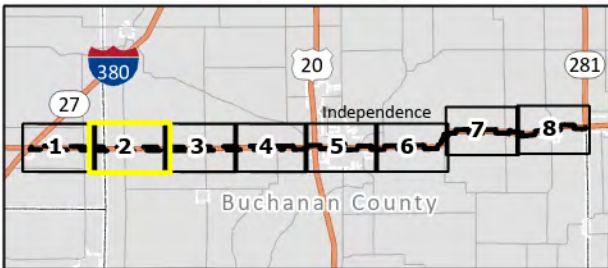
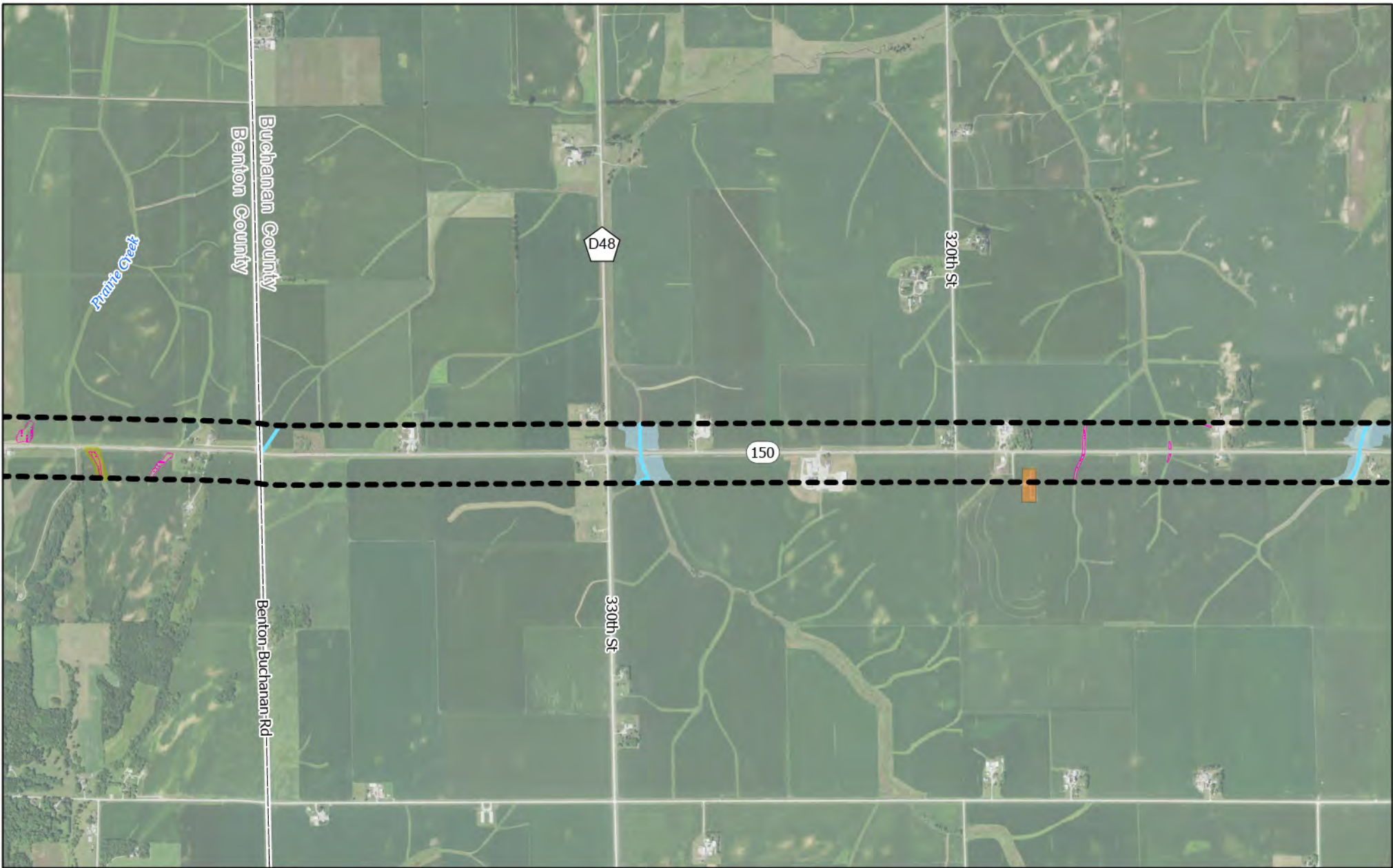
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SHPO Cultural Resource Site	Cemetery
Waterway	Regulated Material
Wetland	Trail
Floodplain	School
T&E Habitat	Recreation Area
Prairie	



Environmental Constraints
IA 150 Super Two Study
 Page 1 of 8

Base Map Source: NAIP Imagery
 Data Sources: IADOT, IADNR, FEMA

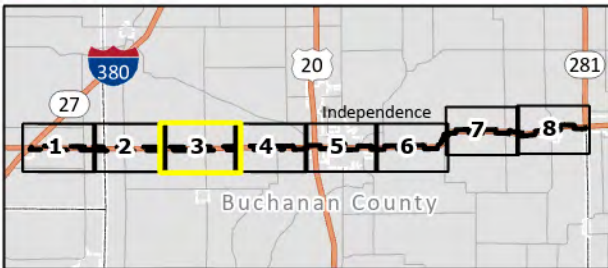
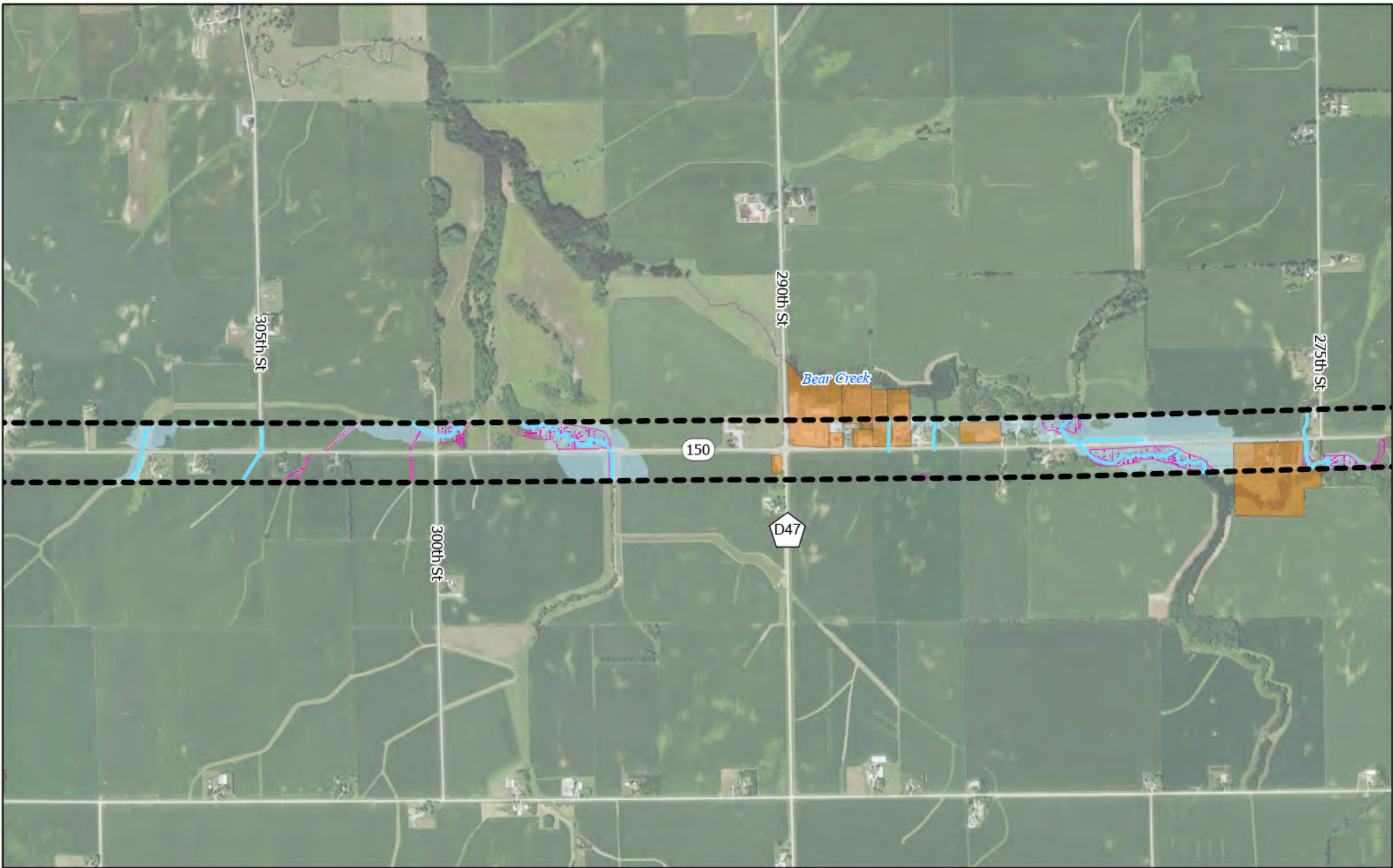




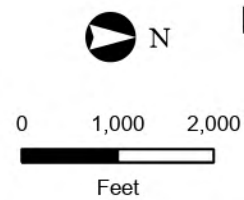
Environmental Constraints
IA 150 Super Two Study
 Page 2 of 8

Base Map Source: NAIP Imagery
 Data Sources: IADOT, IADNR, FEMA





Study Area	Woodland
SHPO Cultural Resource Site	Cemetery
Waterway	Regulated Material
Wetland	Trail
Floodplain	School
T&E Habitat	Recreation Area
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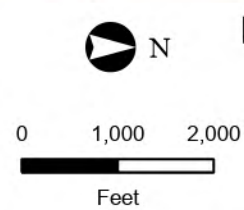
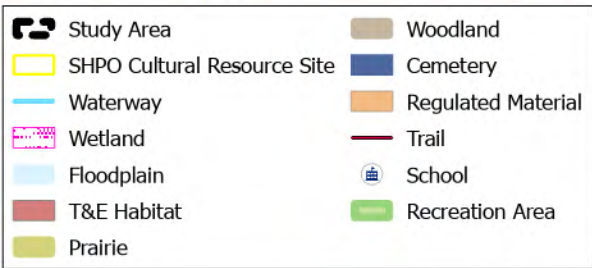
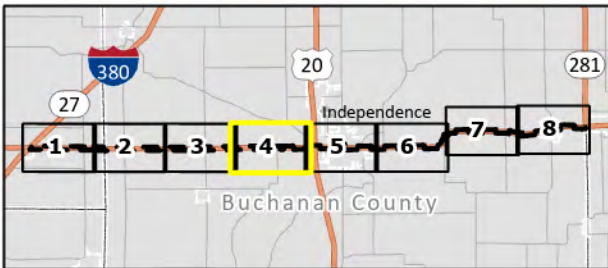


Environmental Constraints IA 150 Super Two Study

Page 3 of 8

Base Map Source: NAIP Imagery
Data Sources: IADOT, IADNR, FEMA



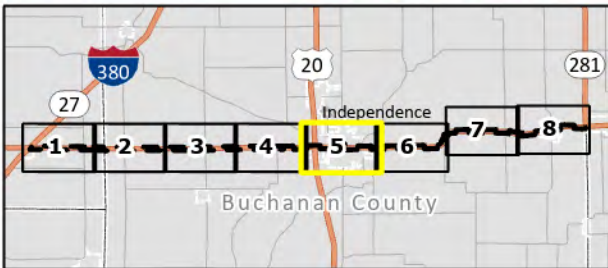
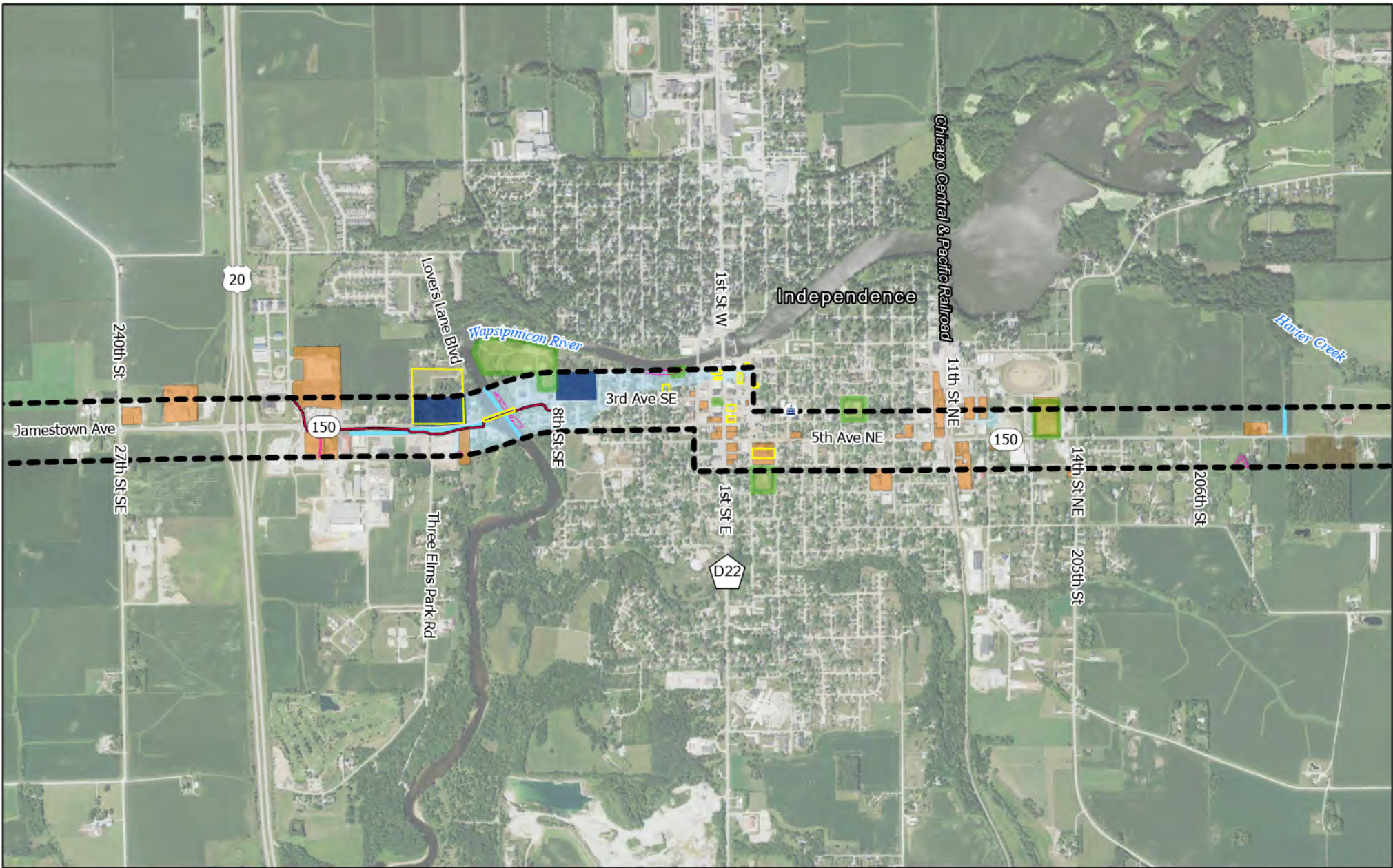


Environmental Constraints IA 150 Super Two Study

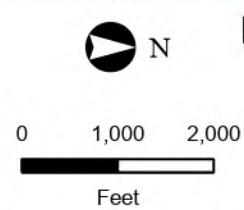
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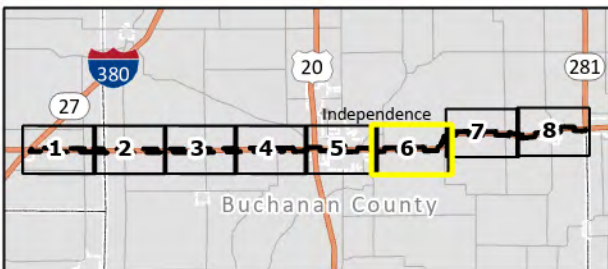
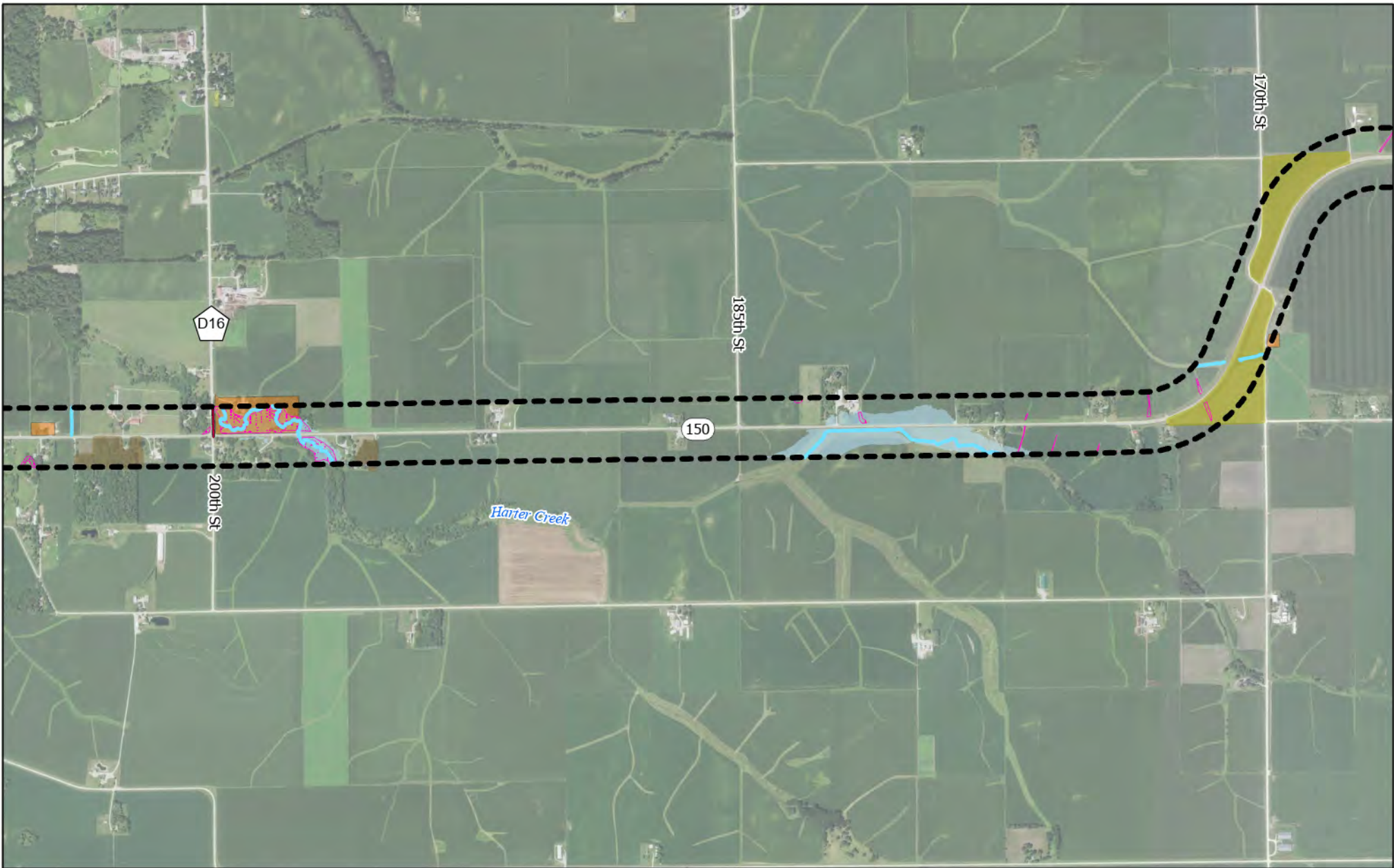
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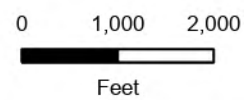
Environmental Constraints
IA 150 Super Two Study
 Page 5 of 8

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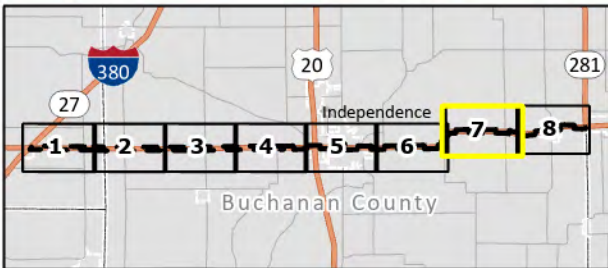
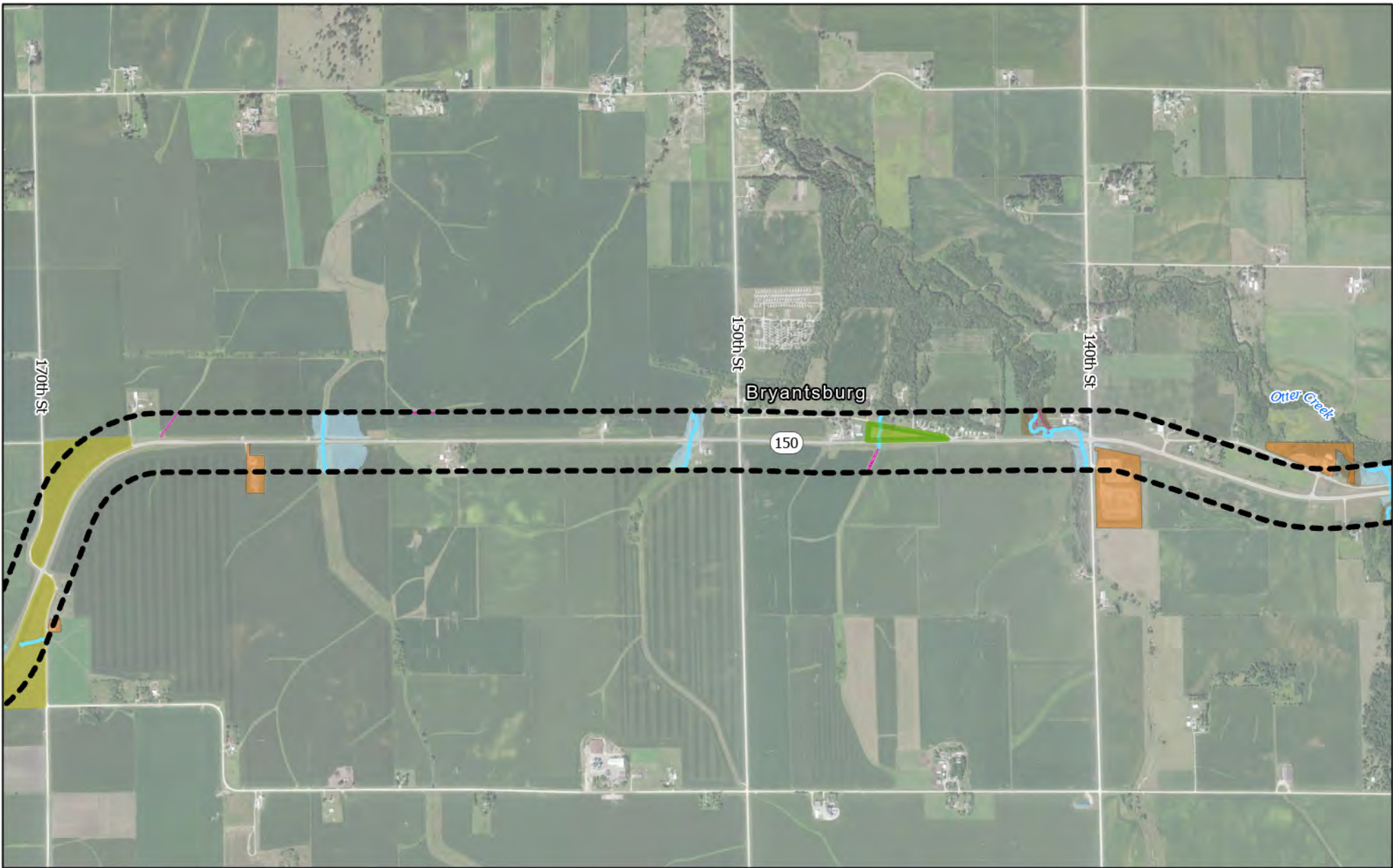
Study Area	Woodland
SHPO Cultural Resource Site	Cemetery
Waterway	Regulated Material
Wetland	Trail
Floodplain	School
T&E Habitat	Recreation Area
Prairie	



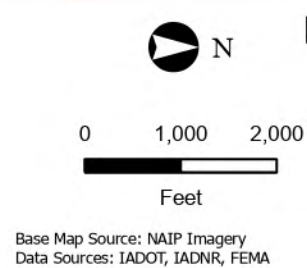
Environmental Constraints
IA 150 Super Two Study
 Page 6 of 8

Base Map Source: NAIP Imagery
 Data Sources: IADOT, IADNR, FEMA





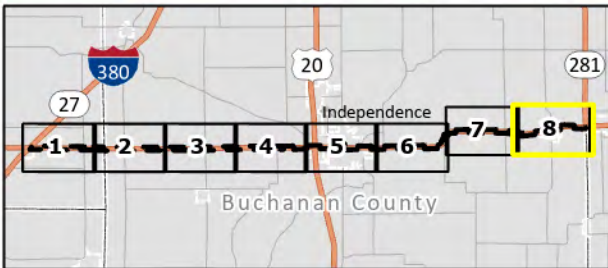
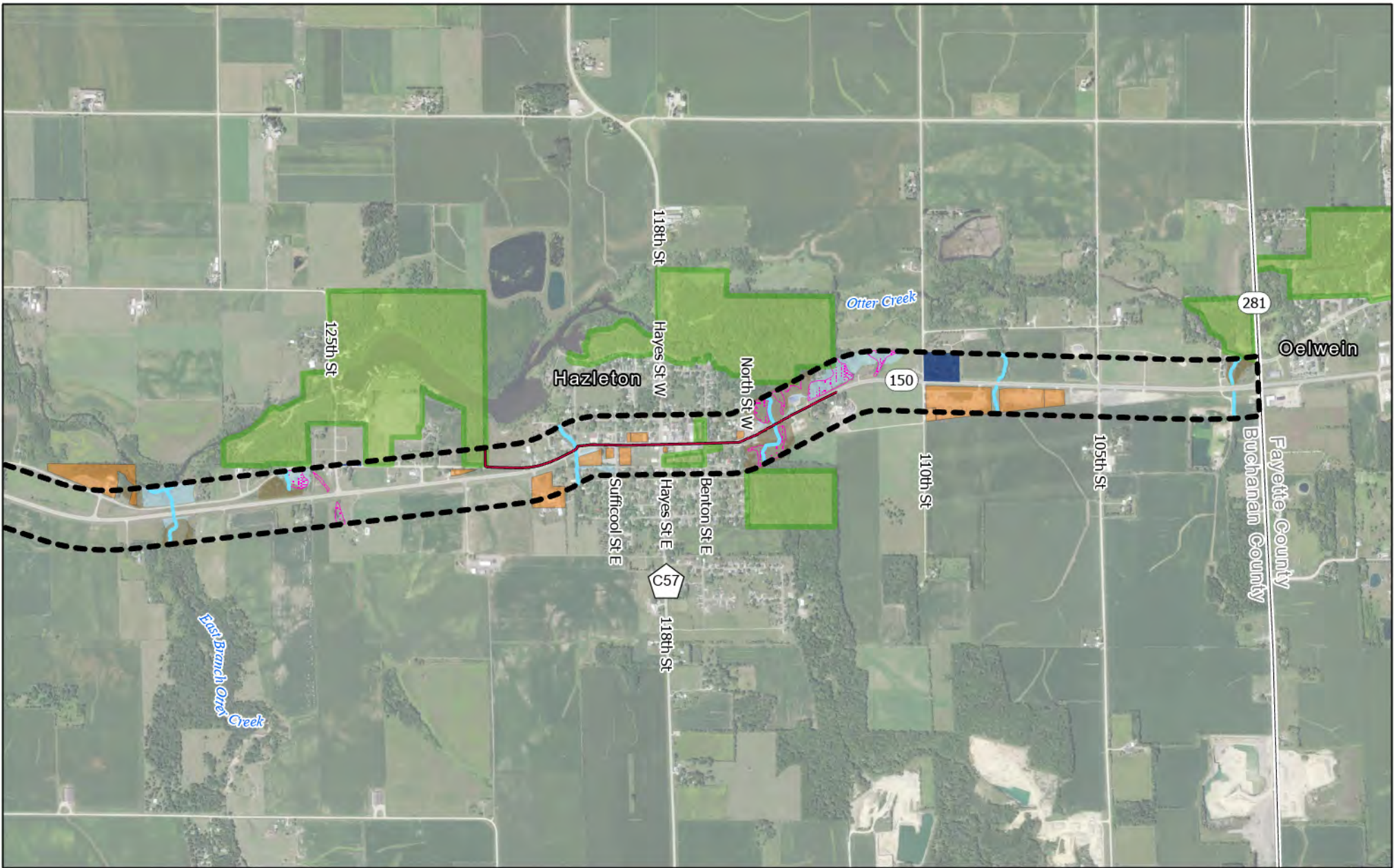
Study Area	Woodland
SHPO Cultural Resource Site	Cemetery
Waterway	Regulated Material
Wetland	Trail
Floodplain	School
T&E Habitat	Recreation Area
Prairie	



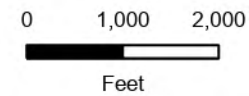
Environmental Constraints IA 150 Super Two Study

Page 7 of 8





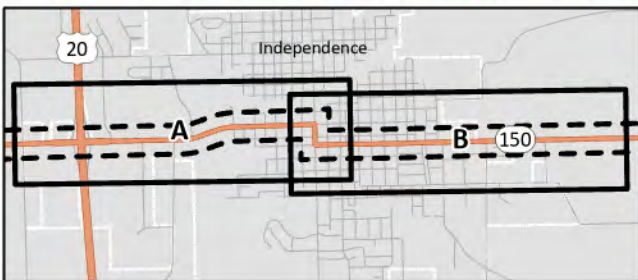
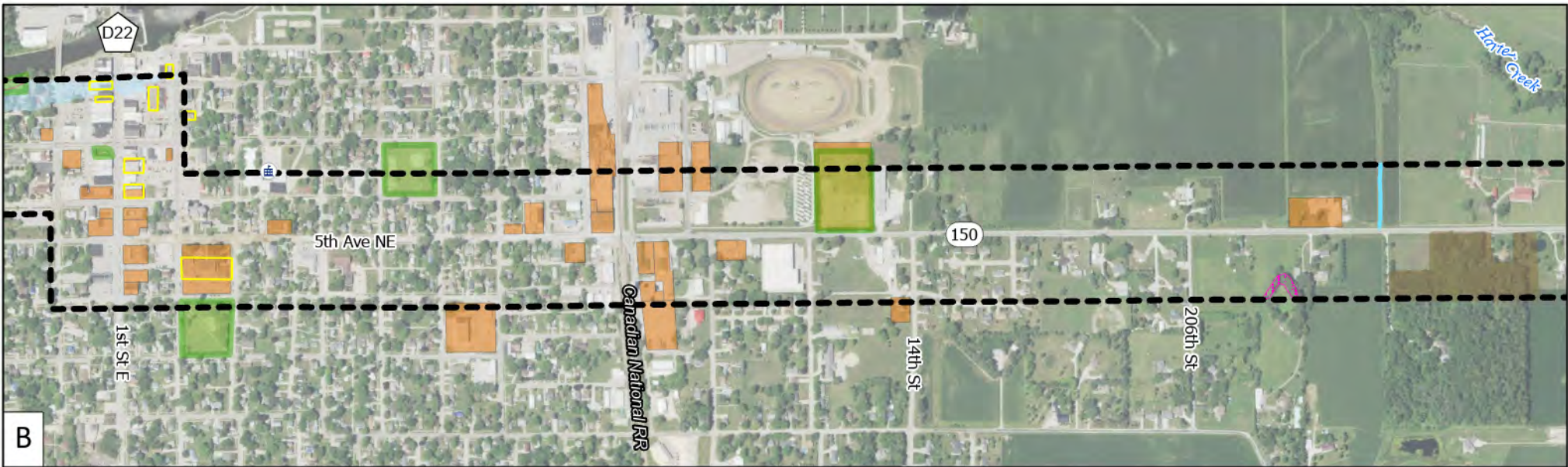
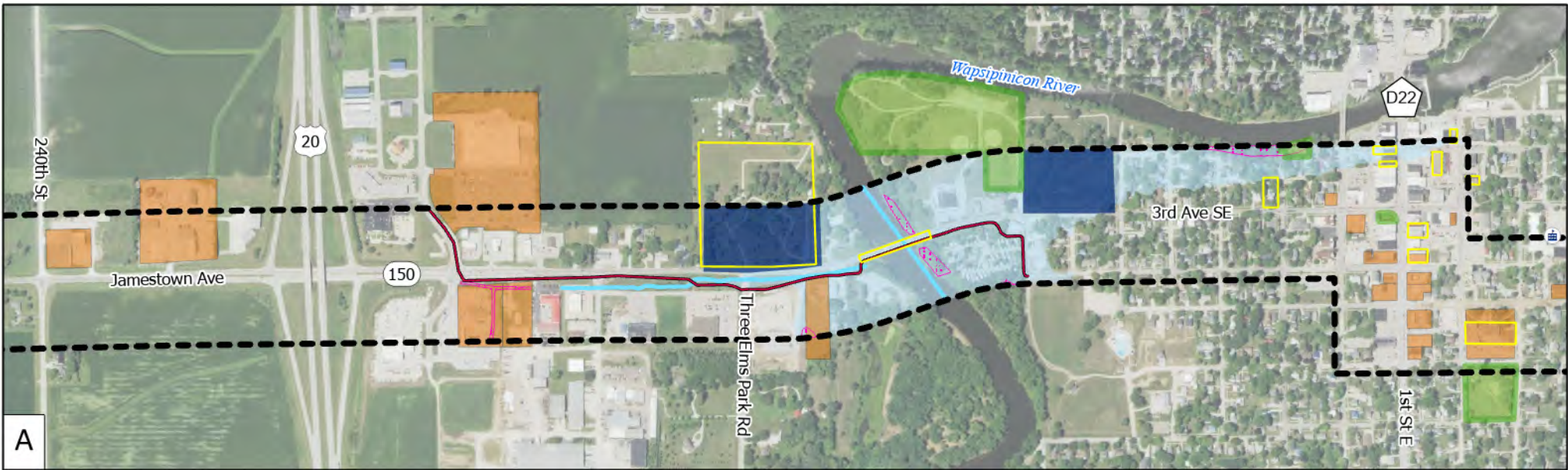
Study Area	Woodland
SHPO Cultural Resource Site	Cemetery
Waterway	Regulated Material
Wetland	Trail
Floodplain	School
T&E Habitat	Recreation Area
Prairie	



Base Map Source: NAIP Imagery
Data Sources: IADOT, IADNR, FEMA

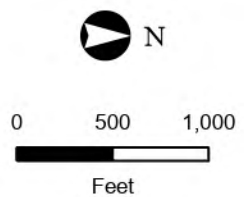
Environmental Constraints IA 150 Super Two Study





Study Area	T&E Habitat
SHPO Cultural Resource Site	Woodland
Waterway	Cemetery
Wetland	Regulated Material
Floodplain	Trail
Recreation Area	School

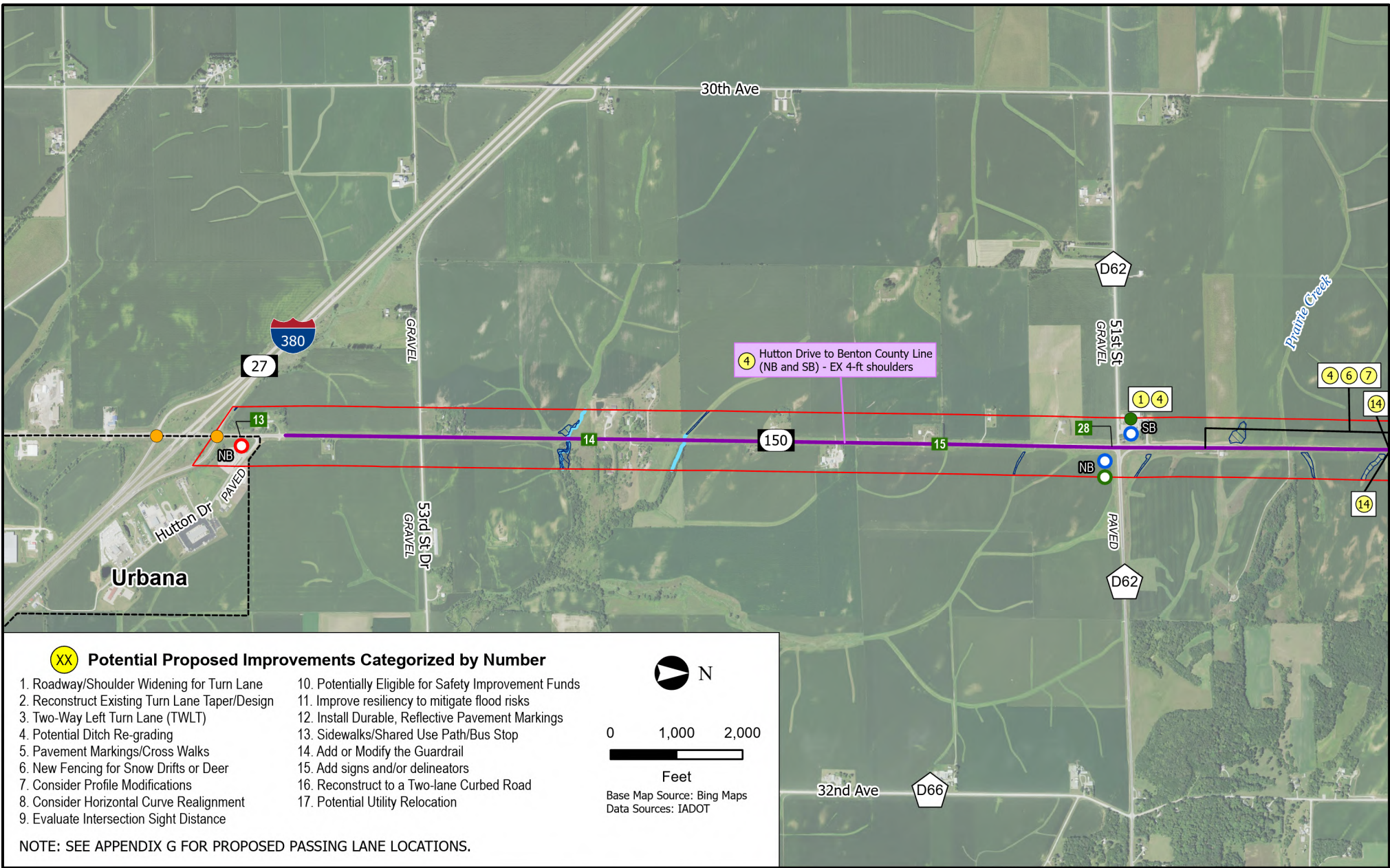
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 Data Sources: IADOT, IADNR, FEMA



Environmental Constraints IA 150 Super Two Study City of Independence



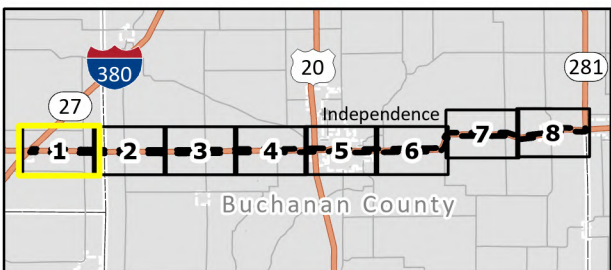
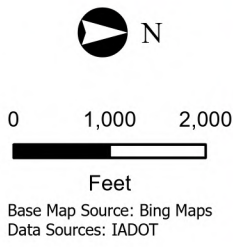
APPENDIX F – PROPOSED IMPROVEMENTS



XX Potential Proposed Improvements Categorized by Number

- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
| 2. Reconstruct Existing Turn Lane Taper/Design | 11. Improve resiliency to mitigate flood risks |
| 3. Two-Way Left Turn Lane (TWLT) | 12. Install Durable, Reflective Pavement Markings |
| 4. Potential Ditch Re-grading | 13. Sidewalks/Shared Use Path/Bus Stop |
| 5. Pavement Markings/Cross Walks | 14. Add or Modify the Guardrail |
| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |

NOTE: SEE APPENDIX G FOR PROPOSED PASSING LANE LOCATIONS.



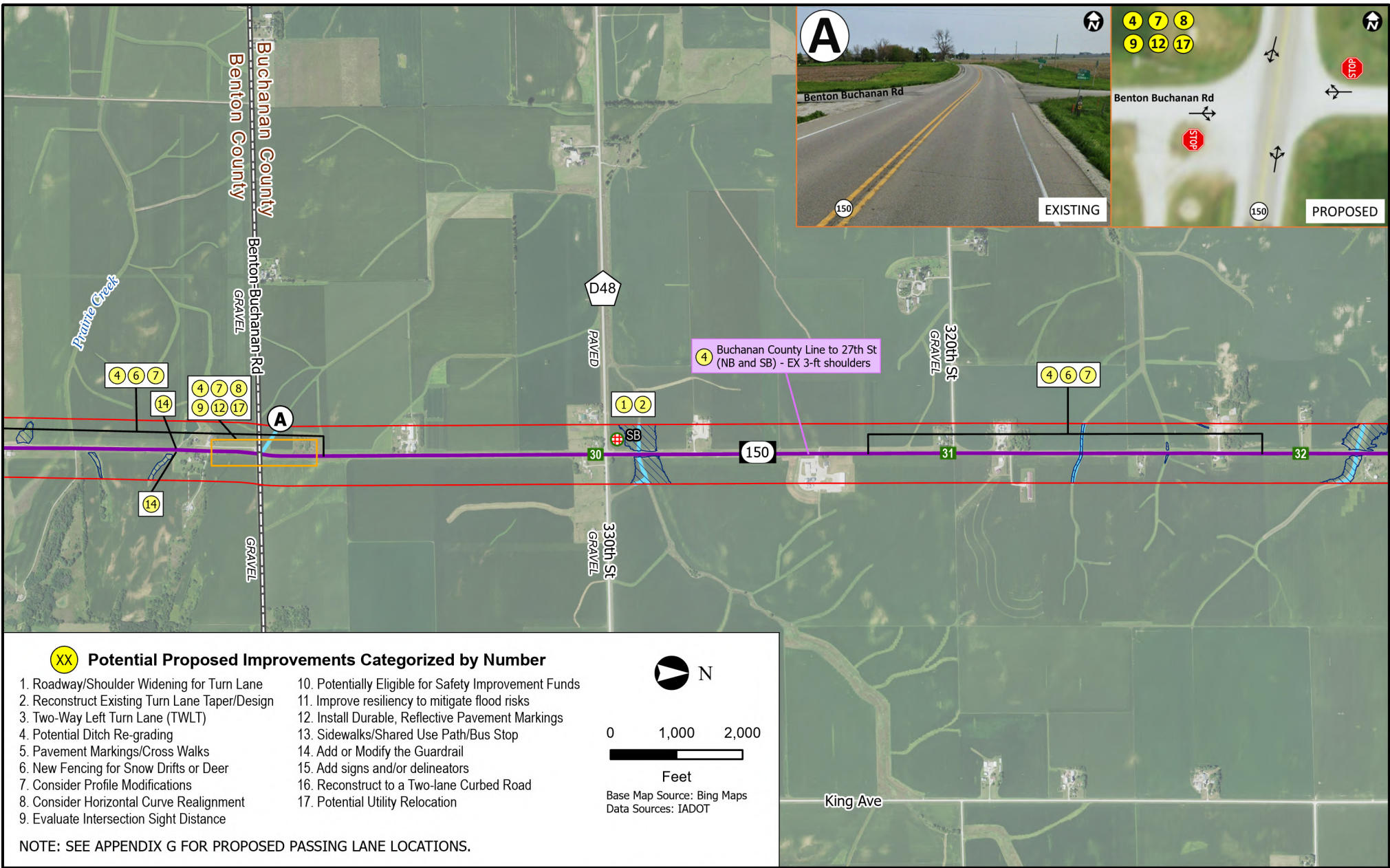
IA 150 Corridor Legend

- Study Area
- City Limits Boundary
- IA 150 Mile Post
- Signalized Intersection (Existing)
- Existing Climbing/Auxiliary Lane
- Shoulder - 10 ft Paved
- Existing Floodplain/Wetland
- Outside Scope of Study
- Adequate Left Turn Lane
- Modified Left Turn Lane
- Proposed Left Turn Lane
- Adequate Major Right Turn Lane
- Adequate Minor Right Turn Lane
- Proposed Minor Right Turn Lane
- Upgrade to Major Right Turn Lane
- Proposed Major Right Turn Lane
- Proposed Improvement

Intersection Inset Legend

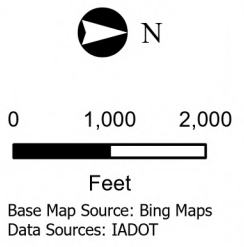
- Existing Lane Configuration
- Re-stripe to a thru lane
- Left Turn Lane
- Minor Right Turn Lane
- Major Right/Left Turn Lane
- Signalized Intersection
- Proposed Design Element



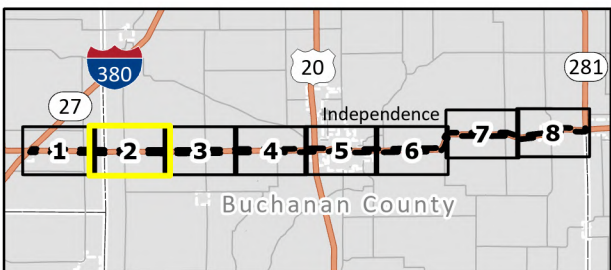


XX Potential Proposed Improvements Categorized by Number

- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
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| 5. Pavement Markings/Cross Walks | 14. Add or Modify the Guardrail |
| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |



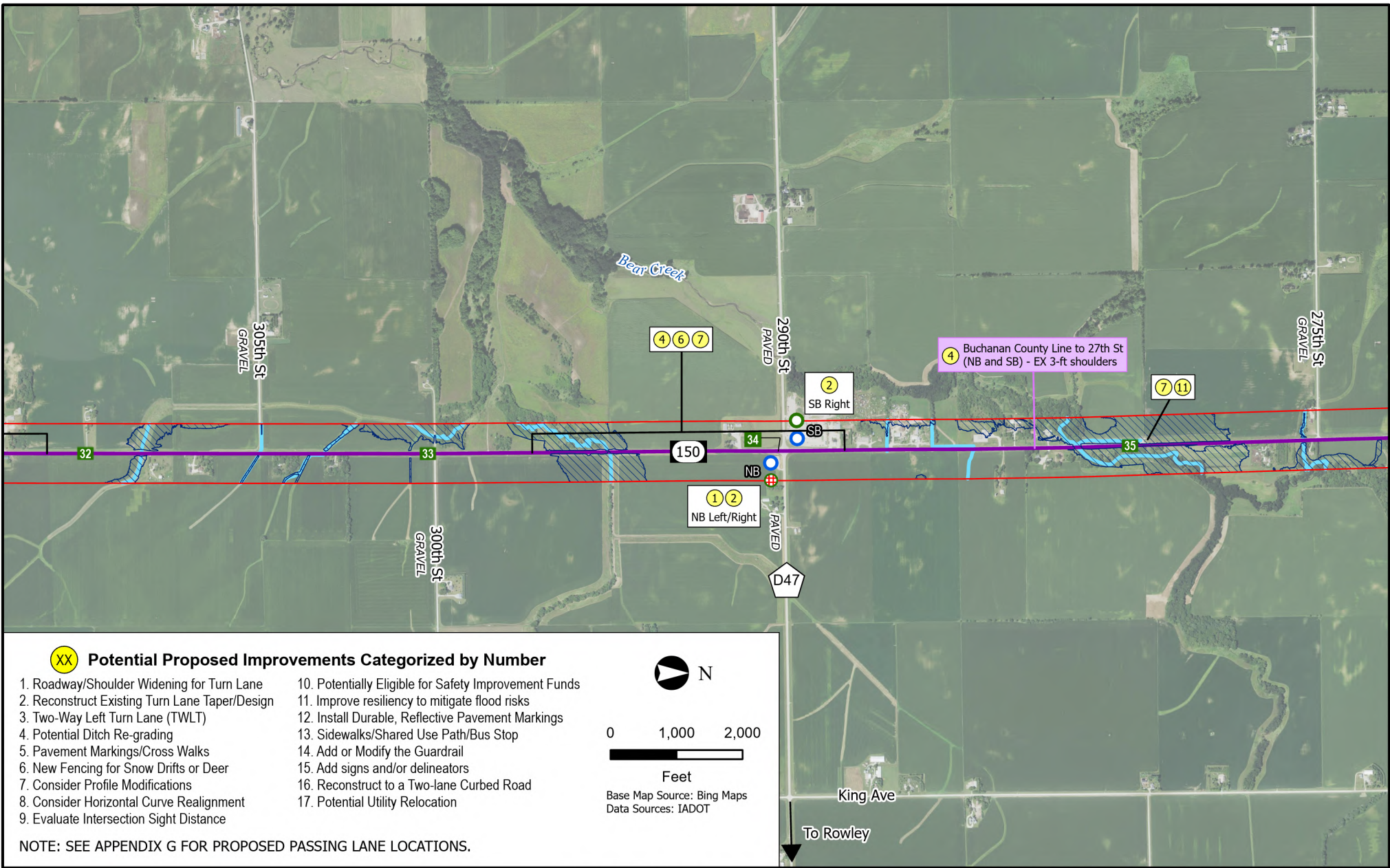
NOTE: SEE APPENDIX G FOR PROPOSED PASSING LANE LOCATIONS.



- IA 150 Corridor Legend**
- Study Area
 - City Limits Boundary
 - IA 150 Mile Post
 - Signalized Intersection (Existing)
 - Existing Climbing/Auxiliary Lane
 - Shoulder - 10 ft Paved
 - Existing Floodplain/Wetland
 - Outside Scope of Study
 - Adequate Left Turn Lane
 - Modified Left Turn Lane
 - Proposed Left Turn Lane
 - Adequate Major Right Turn Lane
 - Adequate Minor Right Turn Lane
 - Proposed Minor Right Turn Lane
 - Upgrade to Major Right Turn Lane
 - Proposed Major Right Turn Lane
 - Proposed Improvement

- Intersection Inset Legend**
- Existing Lane Configuration
 - Re-stripe to a thru lane
 - Left Turn Lane
 - Minor Right Turn Lane
 - Major Right/Left Turn Lane
 - Signalized Intersection
 - Proposed Design Element

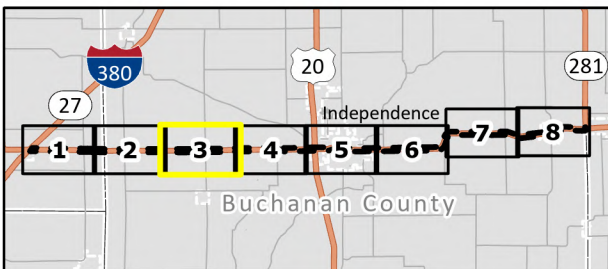




XX Potential Proposed Improvements Categorized by Number

- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
| 2. Reconstruct Existing Turn Lane Taper/Design | 11. Improve resiliency to mitigate flood risks |
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| 5. Pavement Markings/Cross Walks | 14. Add or Modify the Guardrail |
| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |

NOTE: SEE APPENDIX G FOR PROPOSED PASSING LANE LOCATIONS.

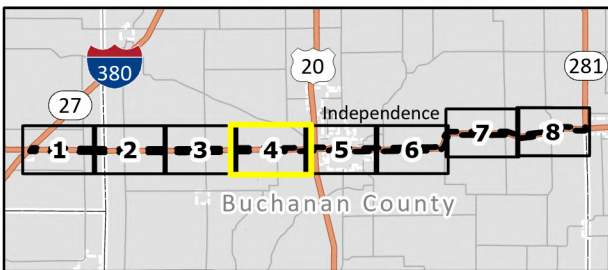
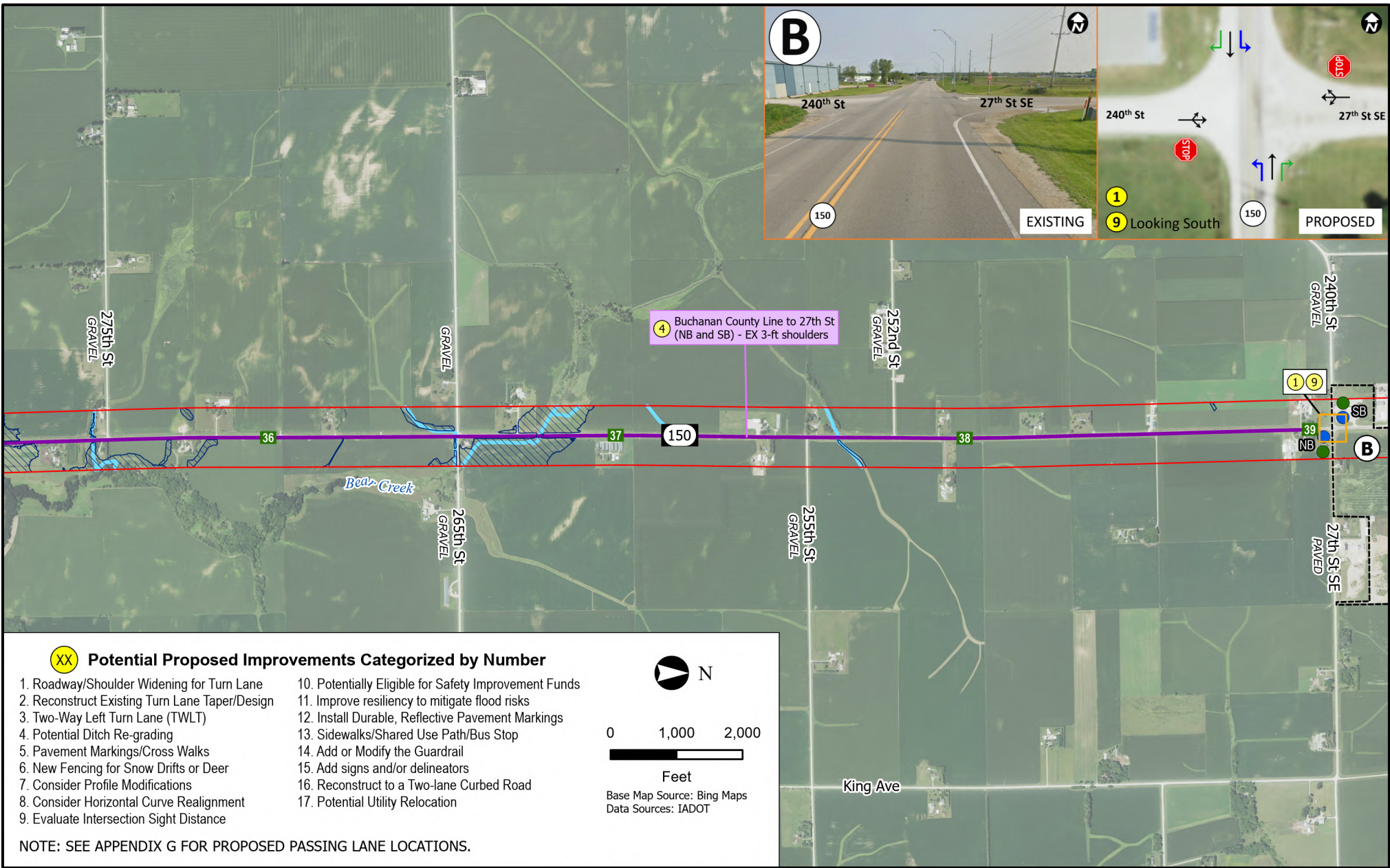


IA 150 Corridor Legend

- Study Area
- City Limits Boundary
- IA 150 Mile Post
- Signalized Intersection (Existing)
- Existing Climbing/Auxiliary Lane
- Shoulder - 10 ft Paved
- Existing Floodplain/Wetland
- Outside Scope of Study
- Adequate Left Turn Lane
- Modified Left Turn Lane
- Proposed Left Turn Lane
- Adequate Major Right Turn Lane
- Adequate Minor Right Turn Lane
- Proposed Minor Right Turn Lane
- Upgrade to Major Right Turn Lane
- Proposed Major Right Turn Lane
- Proposed Improvement

Intersection Inset Legend

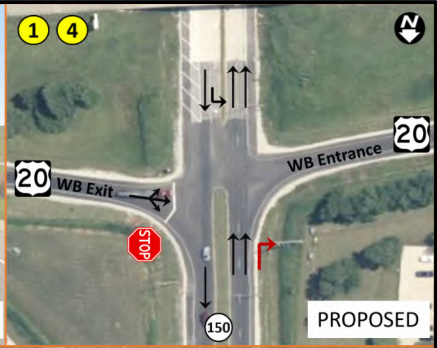
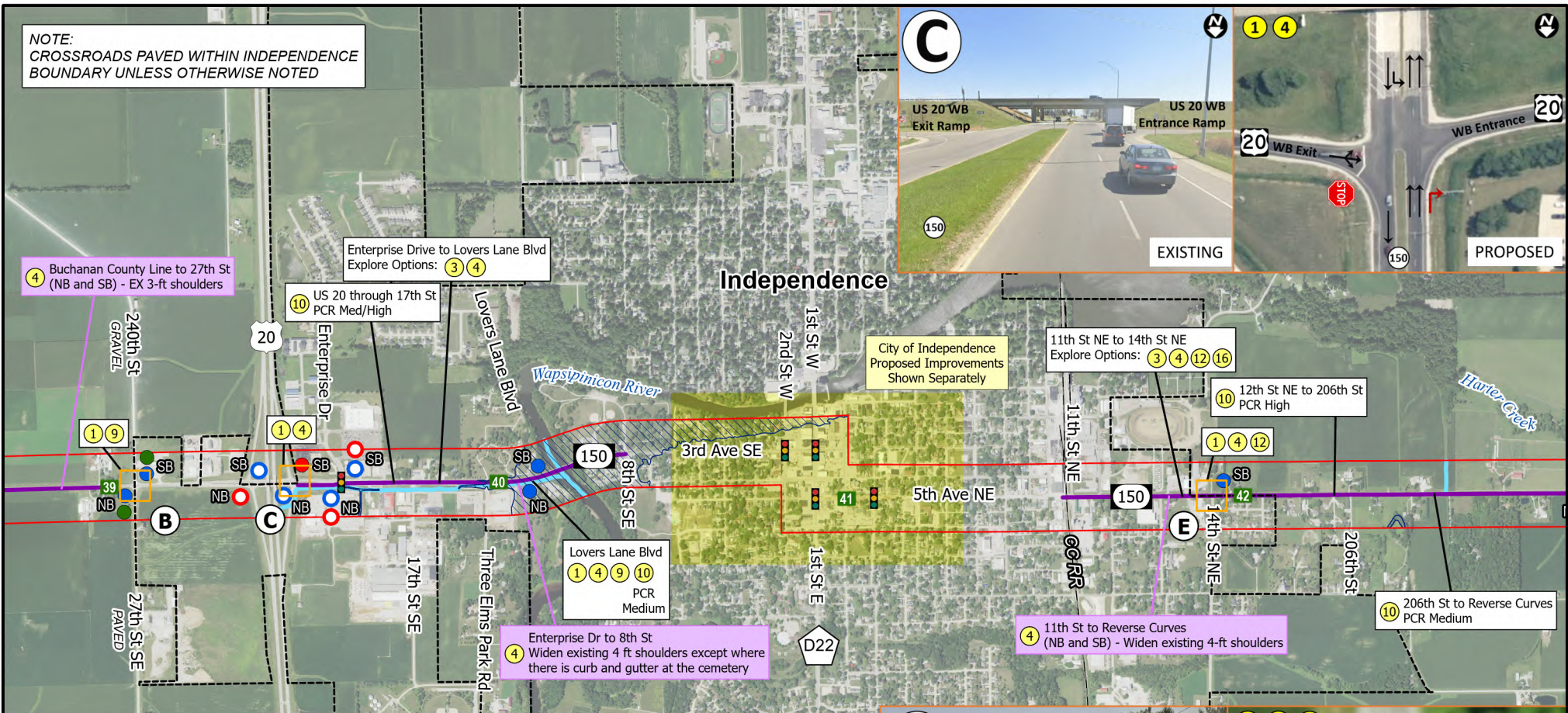
- Existing Lane Configuration
- Re-stripe to a thru lane
- Left Turn Lane
- Minor Right Turn Lane
- Major Right/Left Turn Lane
- Signalized Intersection
- Proposed Design Element



- IA 150 Corridor Legend**
- Study Area
 - City Limits Boundary
 - IA 150 Mile Post
 - Signalized Intersection (Existing)
 - Existing Climbing/Auxiliary Lane
 - Shoulder - 10 ft Paved
 - Existing Floodplain/Wetland
 - Outside Scope of Study
 - Adequate Left Turn Lane
 - Modified Left Turn Lane
 - Proposed Left Turn Lane
 - Adequate Major Right Turn Lane
 - Adequate Minor Right Turn Lane
 - Proposed Minor Right Turn Lane
 - Upgrade to Major Right Turn Lane
 - Proposed Major Right Turn Lane
 - Proposed Improvement

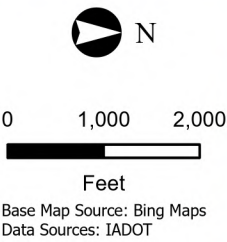
- Intersection Inset Legend**
- Existing Lane Configuration
 - Re-stripe to a thru lane
 - Left Turn Lane
 - Minor Right Turn Lane
 - Major Right/Left Turn Lane
 - Signalized Intersection
 - Proposed Design Element

NOTE:
CROSSROADS PAVED WITHIN INDEPENDENCE
BOUNDARY UNLESS OTHERWISE NOTED

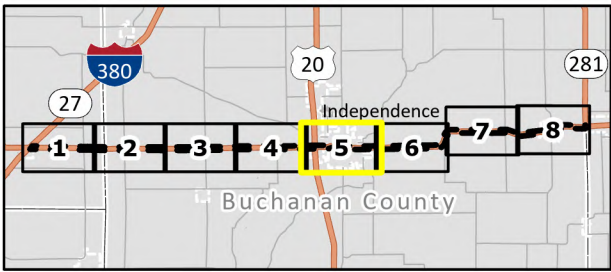


XX Potential Proposed Improvements Categorized by Number

- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
| 2. Reconstruct Existing Turn Lane Taper/Design | 11. Improve resiliency to mitigate flood risks |
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| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |



NOTE: SEE APPENDIX G FOR PROPOSED PASSING LANE LOCATIONS.



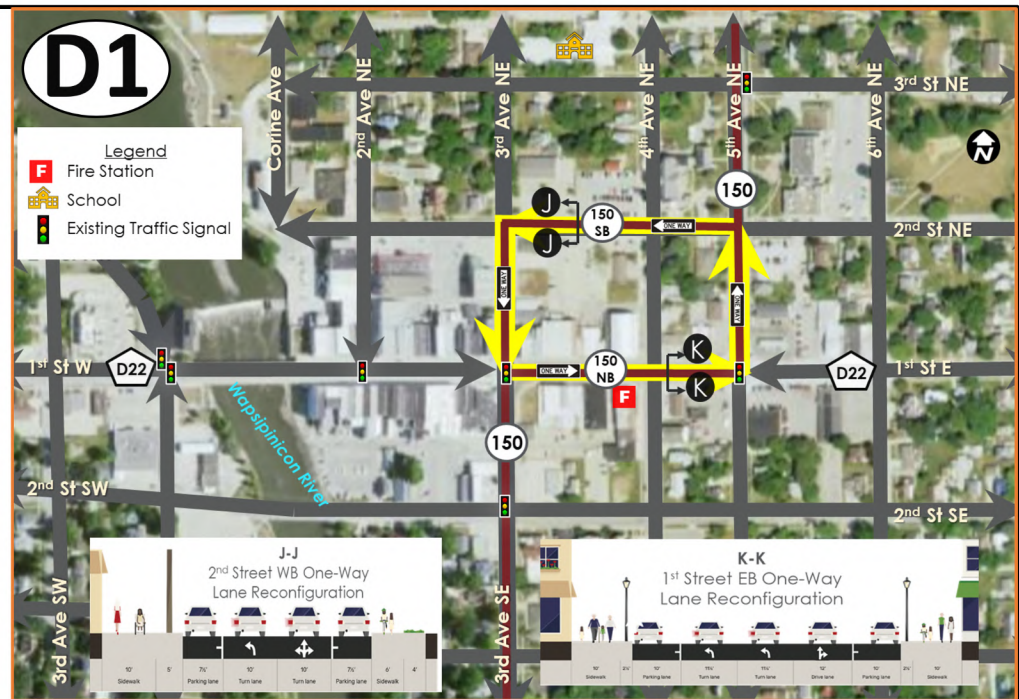
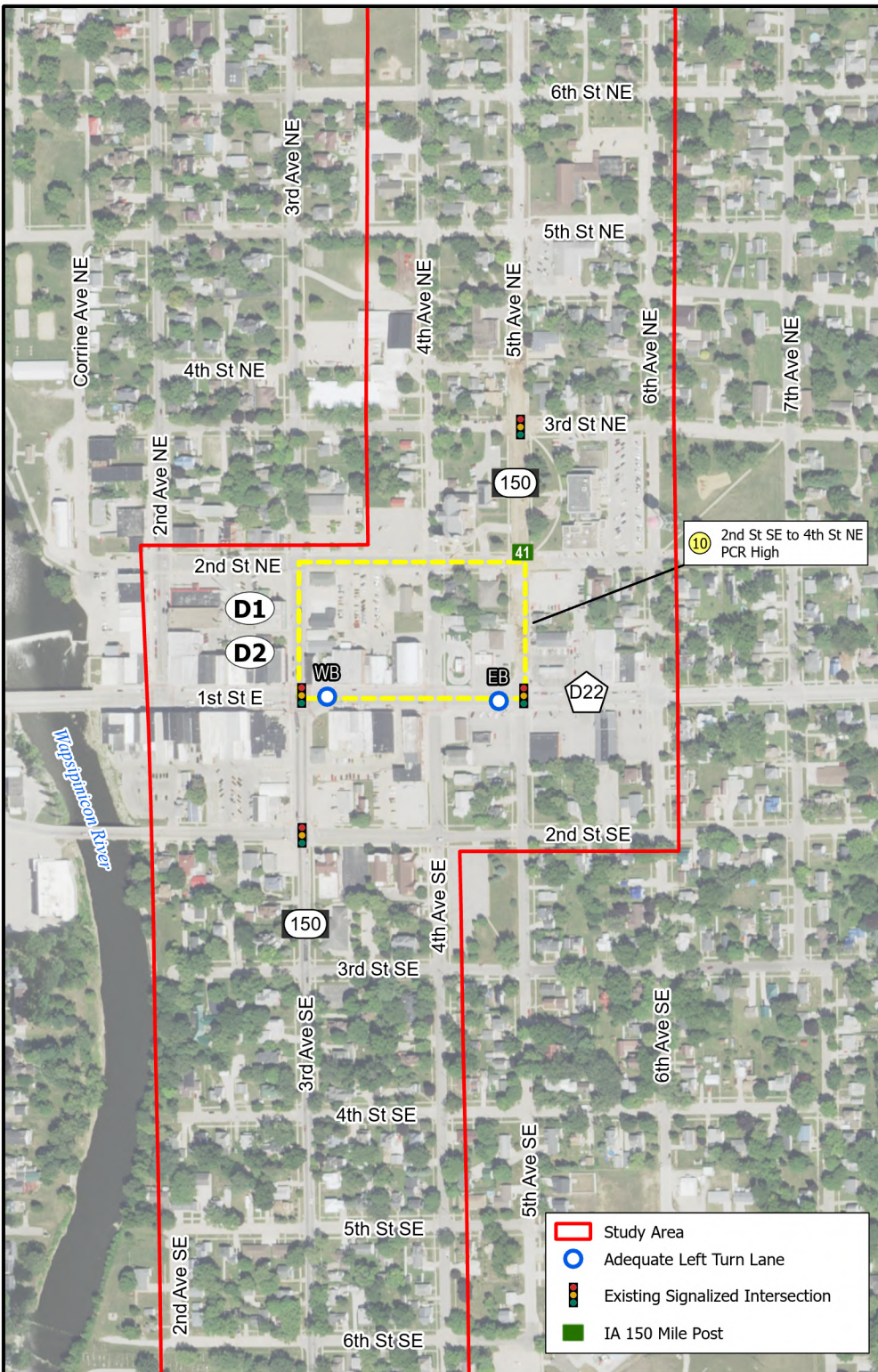
IA 150 Corridor Legend

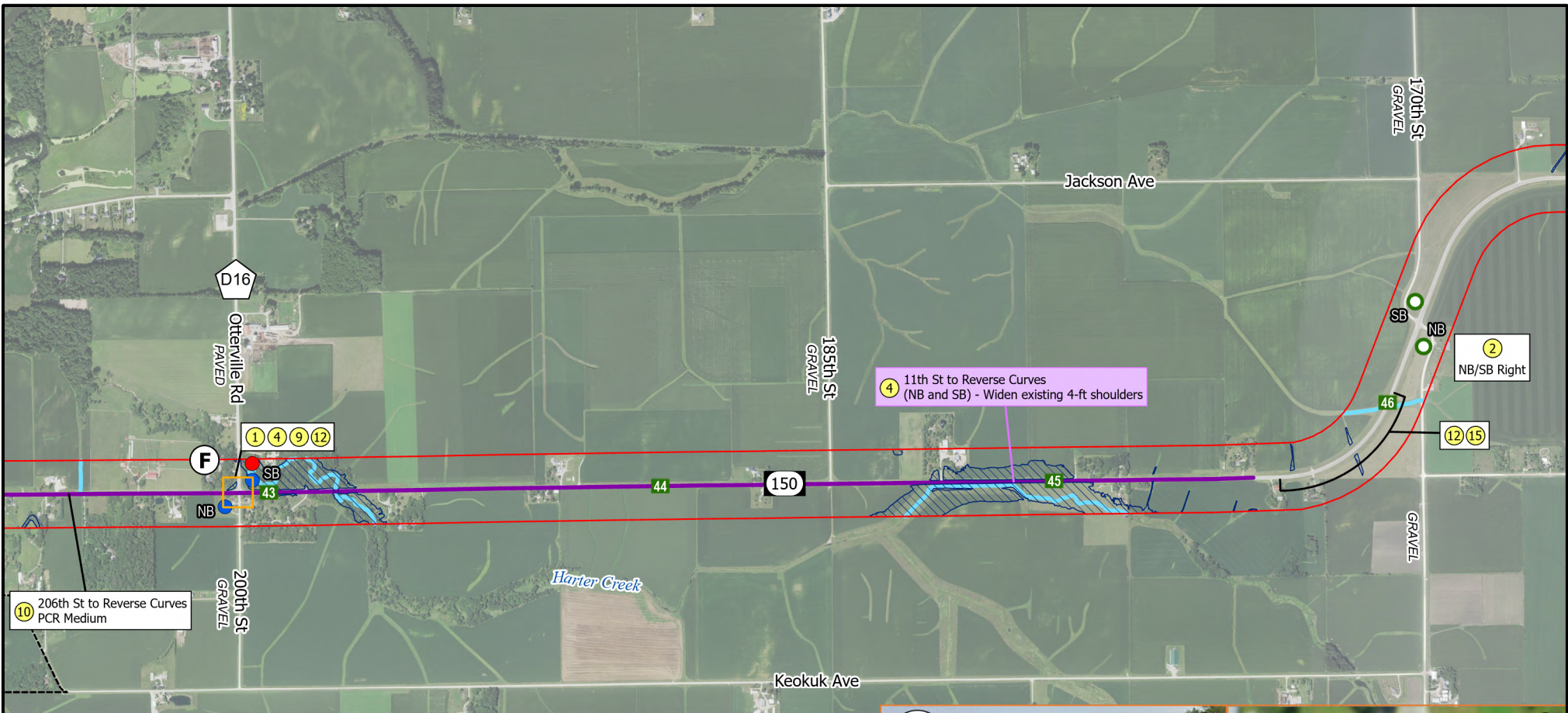
- | | |
|------------------------------------|----------------------------------|
| Study Area | Modified Left Turn Lane |
| City Limits Boundary | Proposed Left Turn Lane |
| IA 150 Mile Post | Adequate Major Right Turn Lane |
| Signalized Intersection (Existing) | Adequate Minor Right Turn Lane |
| Existing Climbing/Auxiliary Lane | Proposed Minor Right Turn Lane |
| Shoulder - 10 ft Paved | Upgrade to Major Right Turn Lane |
| Existing Floodplain/Wetland | Proposed Major Right Turn Lane |
| Outside Scope of Study | Proposed Improvement |
| Adequate Left Turn Lane | |

Intersection Inset Legend

- | |
|-----------------------------|
| Existing Lane Configuration |
| Re-stripe to a thru lane |
| Left Turn Lane |
| Minor Right Turn Lane |
| Major Right/Left Turn Lane |
| Signalized Intersection |
| Proposed Design Element |

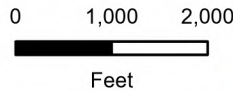




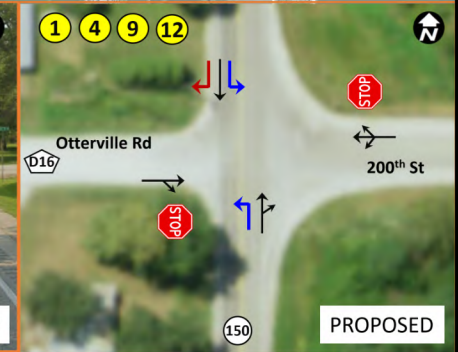
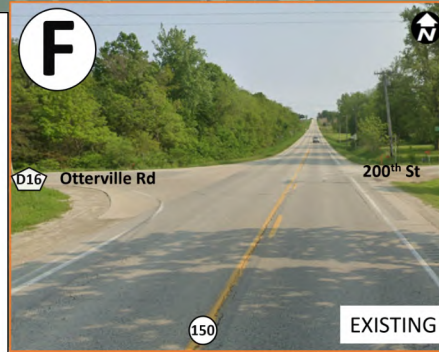


XX Potential Proposed Improvements Categorized by Number

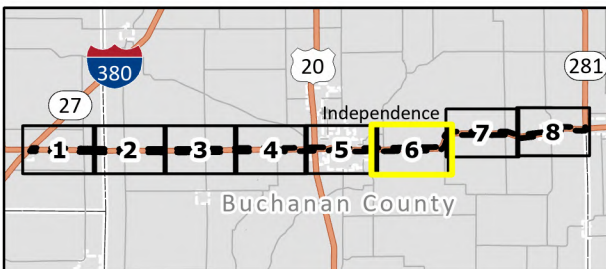
- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
| 2. Reconstruct Existing Turn Lane Taper/Design | 11. Improve resiliency to mitigate flood risks |
| 3. Two-Way Left Turn Lane (TWLT) | 12. Install Durable, Reflective Pavement Markings |
| 4. Potential Ditch Re-grading | 13. Sidewalks/Shared Use Path/Bus Stop |
| 5. Pavement Markings/Cross Walks | 14. Add or Modify the Guardrail |
| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |



Base Map Source: Bing Maps
Data Sources: IADOT



NOTE: SEE APPENDIX G FOR PROPOSED PASSING LANE LOCATIONS.



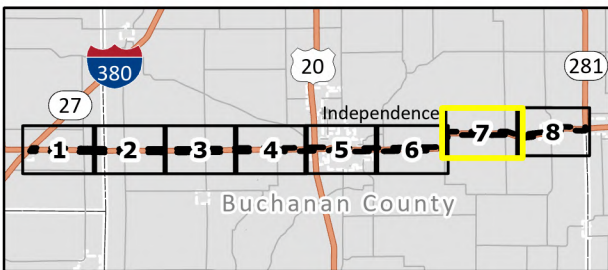
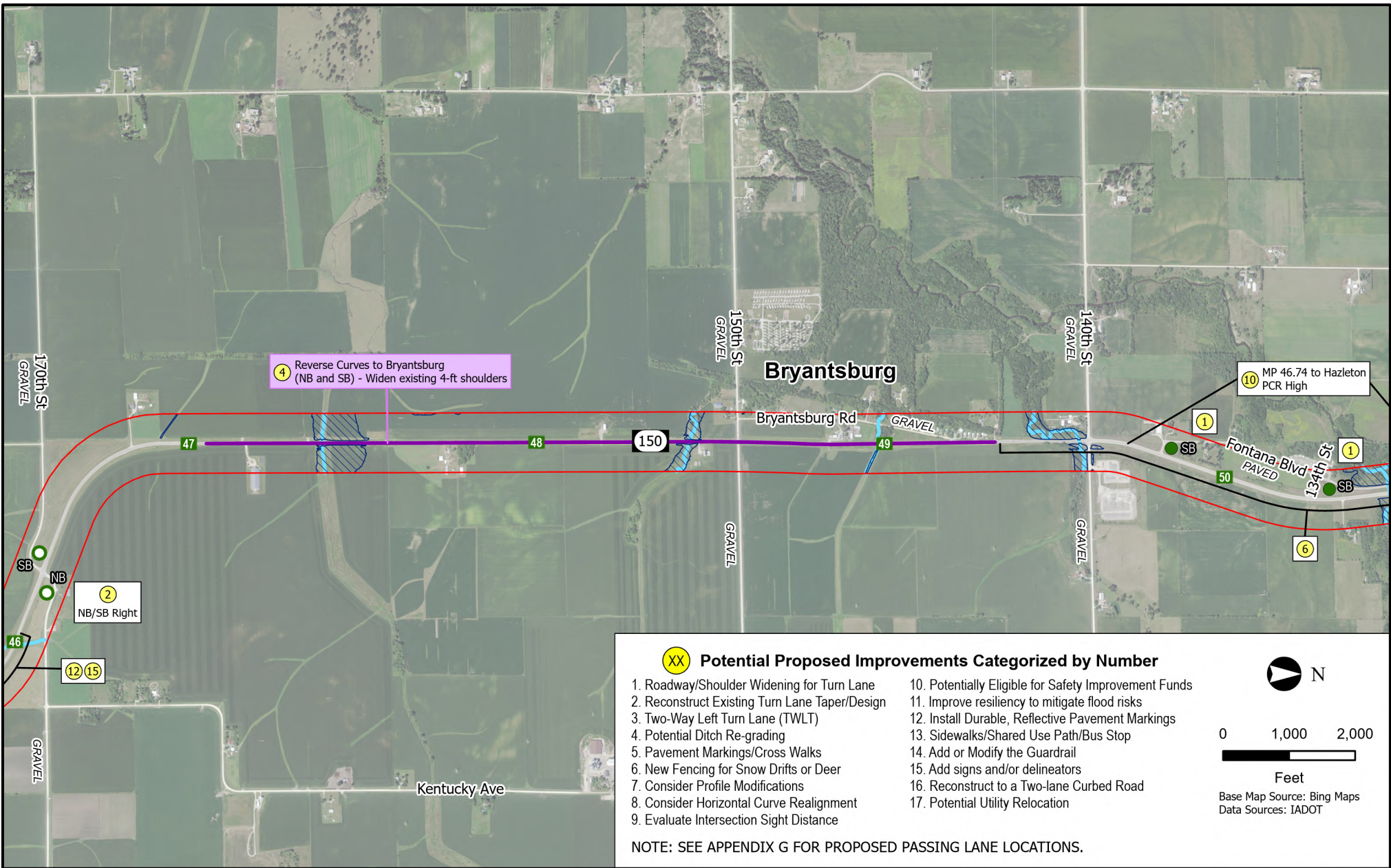
IA 150 Corridor Legend

- | | |
|------------------------------------|----------------------------------|
| Study Area | Modified Left Turn Lane |
| City Limits Boundary | Proposed Left Turn Lane |
| IA 150 Mile Post | Adequate Major Right Turn Lane |
| Signalized Intersection (Existing) | Adequate Minor Right Turn Lane |
| Existing Climbing/Auxiliary Lane | Proposed Minor Right Turn Lane |
| Shoulder - 10 ft Paved | Upgrade to Major Right Turn Lane |
| Existing Floodplain/Wetland | Proposed Major Right Turn Lane |
| Outside Scope of Study | Proposed Improvement |
| Adequate Left Turn Lane | |

Intersection Inset Legend

- | |
|-----------------------------|
| Existing Lane Configuration |
| Re-stripe to a thru lane |
| Left Turn Lane |
| Minor Right Turn Lane |
| Major Right/Left Turn Lane |
| Signalized Intersection |
| Proposed Design Element |





- ### IA 150 Corridor Legend
- Study Area
 - City Limits Boundary
 - IA 150 Mile Post
 - Signalized Intersection (Existing)
 - Existing Climbing/Auxiliary Lane
 - Shoulder - 10 ft Paved
 - Existing Floodplain/Wetland
 - Outside Scope of Study
 - Adequate Left Turn Lane
 - Modified Left Turn Lane
 - Proposed Left Turn Lane
 - Adequate Major Right Turn Lane
 - Adequate Minor Right Turn Lane
 - Proposed Minor Right Turn Lane
 - Upgrade to Major Right Turn Lane
 - Proposed Major Right Turn Lane
 - Proposed Improvement

- ### Intersection Inset Legend
- Existing Lane Configuration
 - Re-stripe to a thru lane
 - Left Turn Lane
 - Minor Right Turn Lane
 - Major Right/Left Turn Lane
 - Signalized Intersection
 - Proposed Design Element

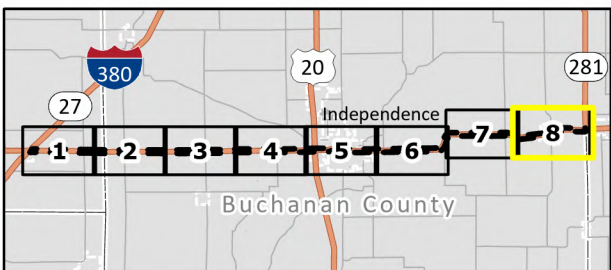
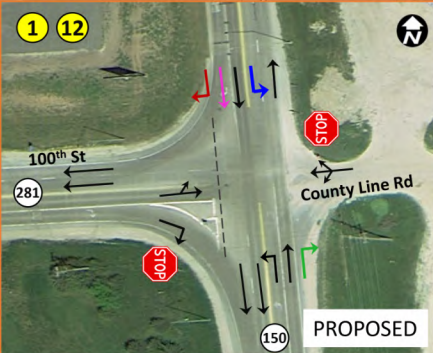
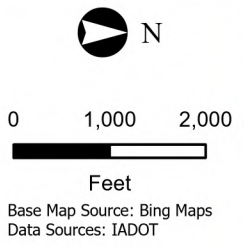


NOTE:
CROSSROADS PAVED WITHIN HAZLETON
BOUNDARY UNLESS OTHERWISE NOTED



XX Potential Proposed Improvements Categorized by Number

- | | |
|--|---|
| 1. Roadway/Shoulder Widening for Turn Lane | 10. Potentially Eligible for Safety Improvement Funds |
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| 5. Pavement Markings/Cross Walks | 14. Add or Modify the Guardrail |
| 6. New Fencing for Snow Drifts or Deer | 15. Add signs and/or delineators |
| 7. Consider Profile Modifications | 16. Reconstruct to a Two-lane Curbed Road |
| 8. Consider Horizontal Curve Realignment | 17. Potential Utility Relocation |
| 9. Evaluate Intersection Sight Distance | |



IA 150 Corridor Legend

- | | |
|------------------------------------|----------------------------------|
| Study Area | Modified Left Turn Lane |
| City Limits Boundary | Proposed Left Turn Lane |
| IA 150 Mile Post | Adequate Major Right Turn Lane |
| Signalized Intersection (Existing) | Adequate Minor Right Turn Lane |
| Existing Climbing/Auxiliary Lane | Proposed Minor Right Turn Lane |
| Shoulder - 10 ft Paved | Upgrade to Major Right Turn Lane |
| Existing Floodplain/Wetland | Proposed Major Right Turn Lane |
| Outside Scope of Study | Proposed Improvement |
| Adequate Left Turn Lane | |

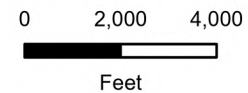
Intersection Inset Legend

- | |
|-----------------------------|
| Existing Lane Configuration |
| Re-stripe to a thru lane |
| Left Turn Lane |
| Minor Right Turn Lane |
| Major Right/Left Turn Lane |
| Signalized Intersection |
| Proposed Design Element |

APPENDIX G – PROPOSED PASSING LANE LOCATIONS



- Study Area
- Proposed Northbound Passing Lane
- Proposed Southbound Passing Lane
- Existing Bridge
- Existing Multiple Barrel Reinforced Concrete Box Culvert
- Stream
- IA 150 Mile Post

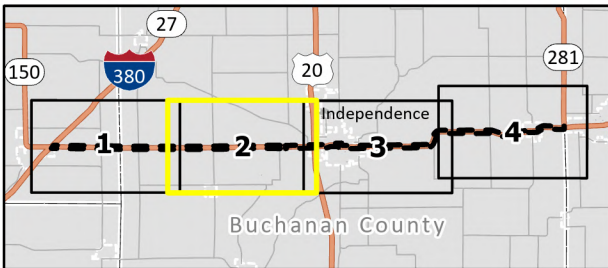
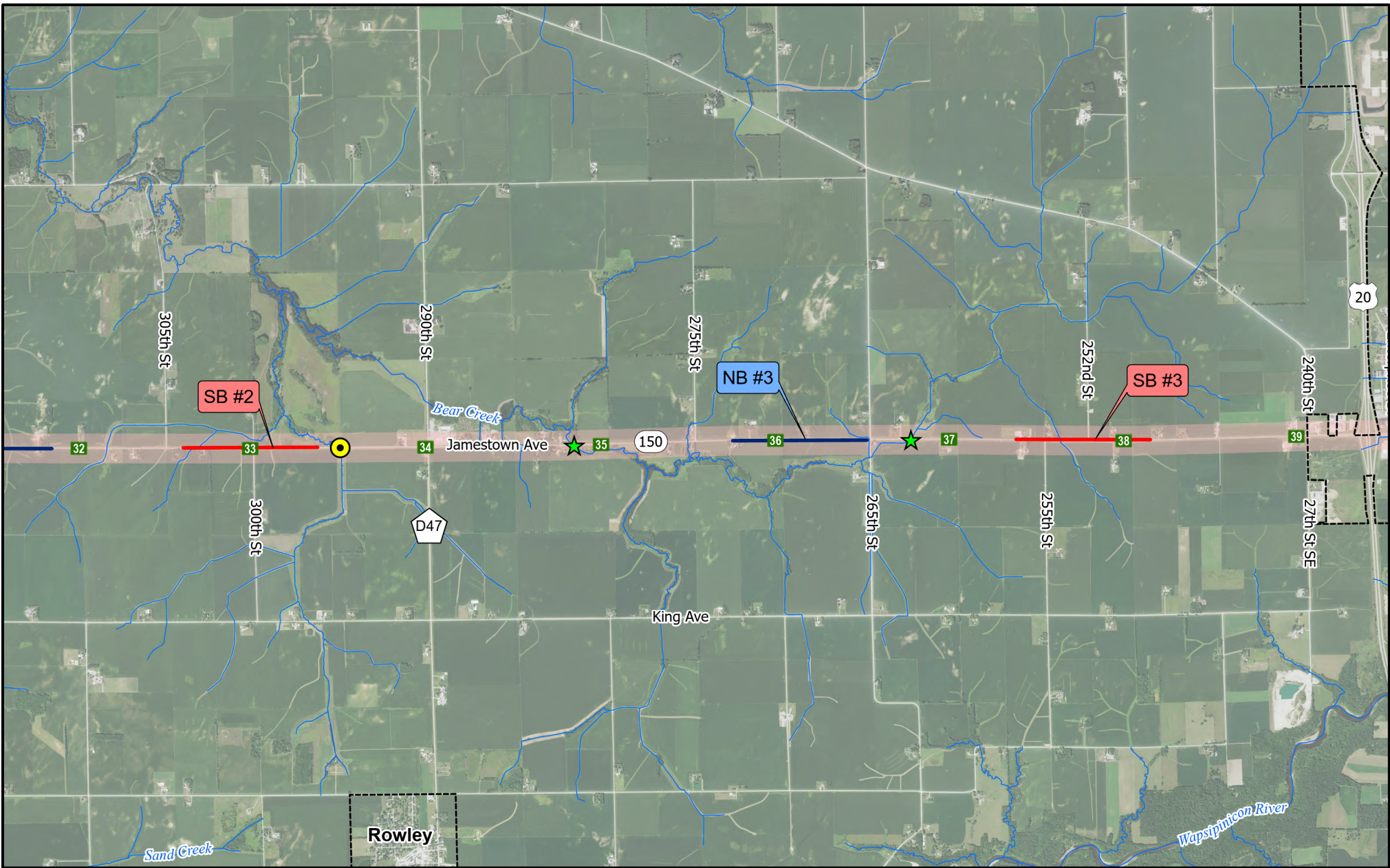


Base Map Source: NAIP Imagery
Data Source: IADOT

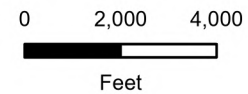
Jacobs

10/27/2023





- Study Area
- Proposed Northbound Passing Lane
- Proposed Southbound Passing Lane
- Existing Bridge
- Existing Multiple Barrel Reinforced Concrete Box Culvert
- Stream
- IA 150 Mile Post



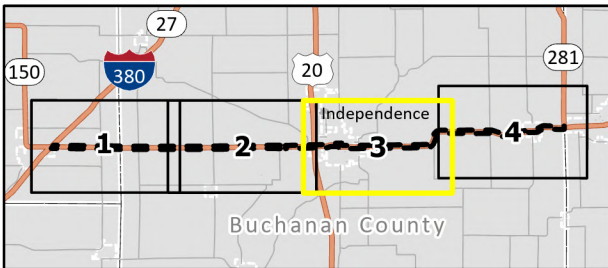
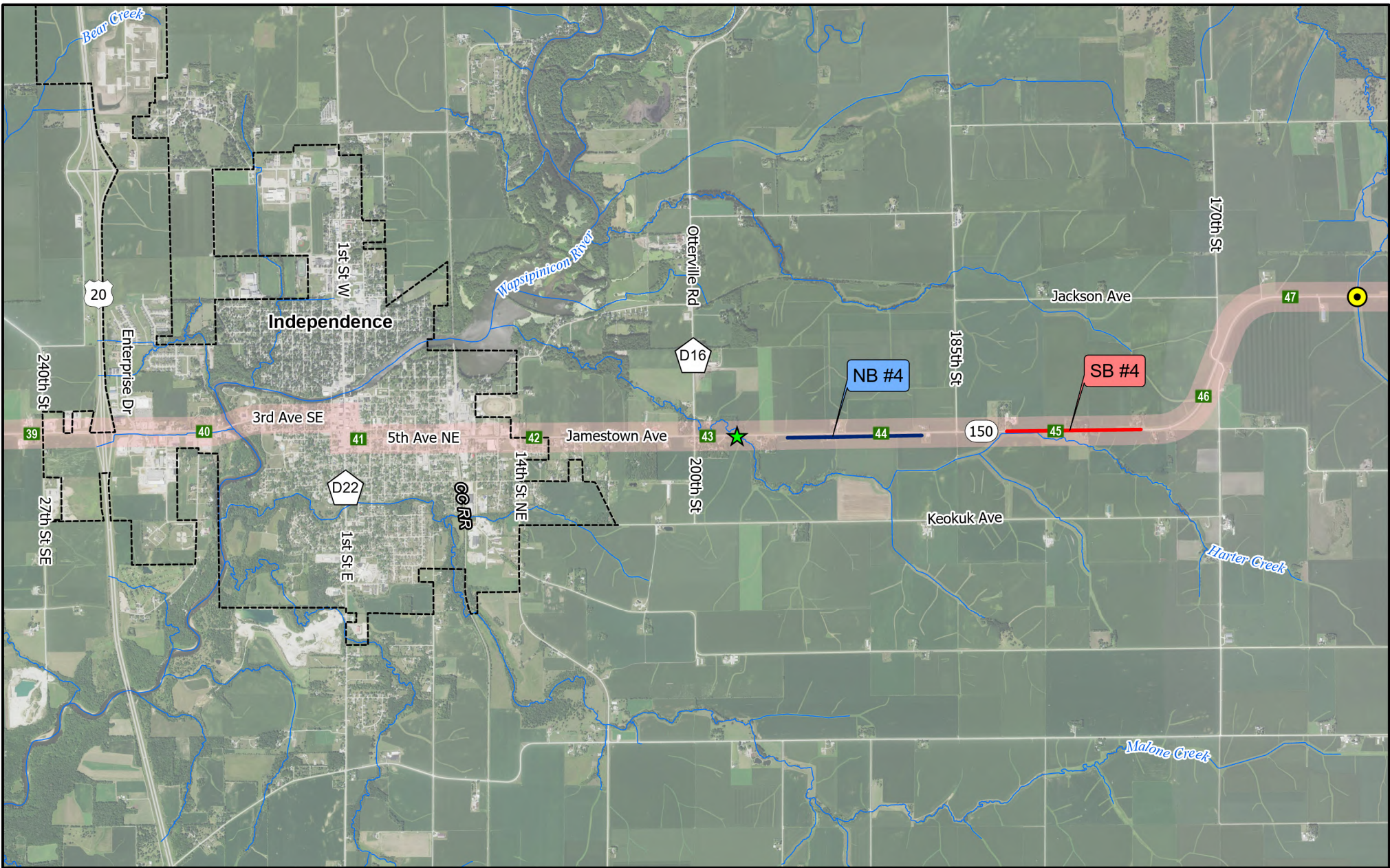
Base Map Source: NAIP Imagery
Data Source: IADOT

DRAFT IA 150 Super Two Study
Proposed Passing Lanes
Page 2 of 4

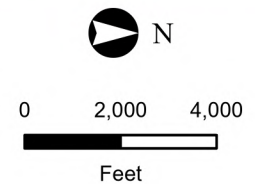
Jacobs

10/27/2023

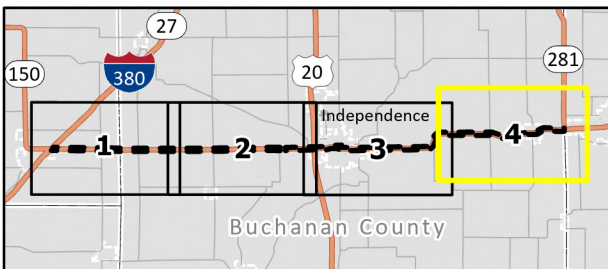
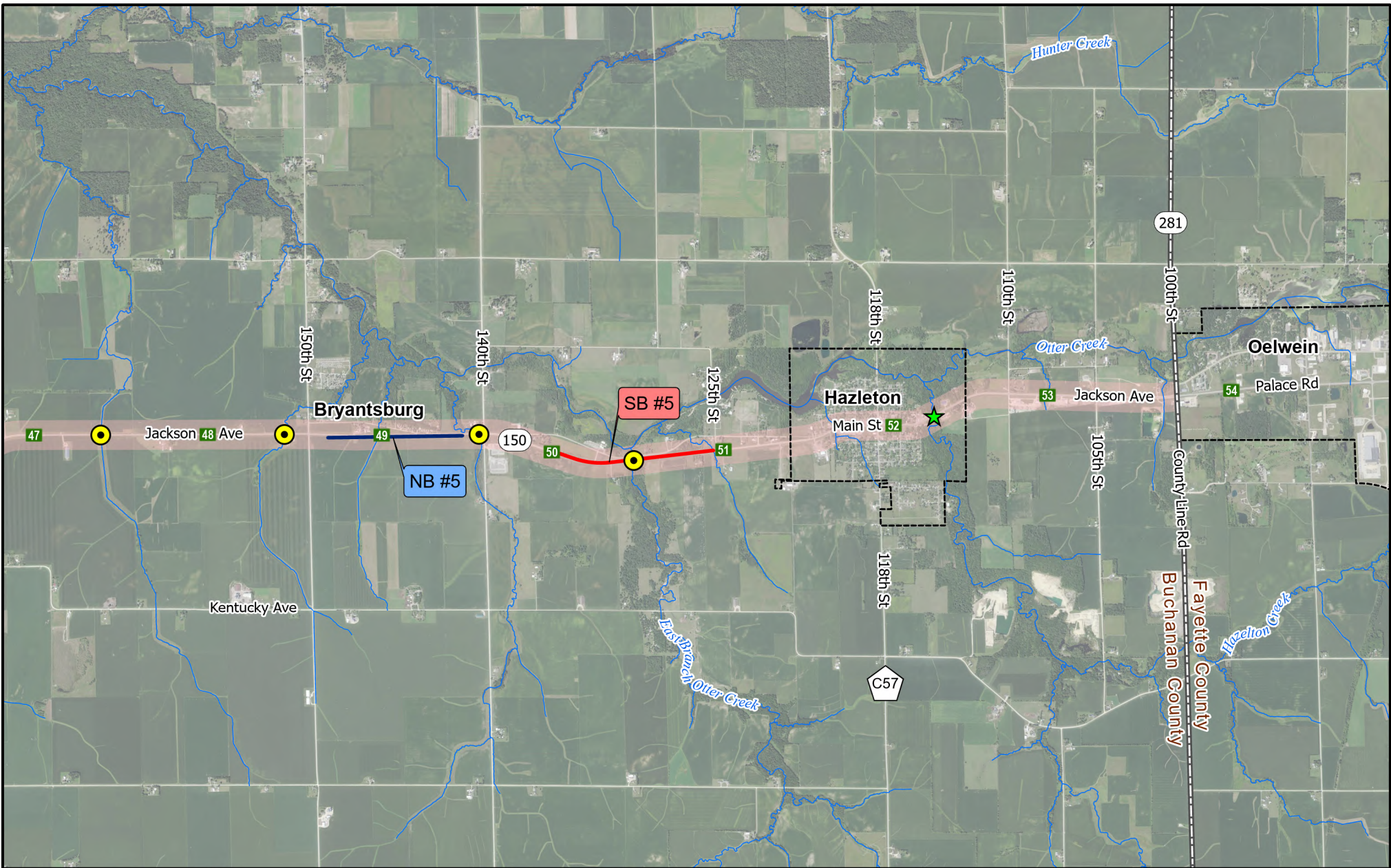




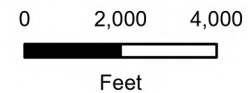
- Study Area
- Proposed Northbound Passing Lane
- Proposed Southbound Passing Lane
- Existing Bridge
- Existing Multiple Barrel Reinforced Concrete Box Culvert
- Stream
- IA 150 Mile Post



Base Map Source: NAIP Imagery
Data Source: IADOT



- Study Area
- Proposed Northbound Passing Lane
- Proposed Southbound Passing Lane
- Existing Bridge
- Existing Multiple Barrel Reinforced Concrete Box Culvert
- Stream
- IA 150 Mile Post



Base Map Source: NAIP Imagery
Data Source: IADOT

DRAFT IA 150 Super Two Study
Proposed Passing Lanes
Page 4 of 4

Jacobs

10/27/2023



APPENDIX H - IMAGES OF BEGINNING AND END OF PROPOSED PASSING LANES

Start of NB #1 Looking North



End of NB #1 Looking South



Start of SB #1 Looking South



End of SB #1 Looking North



Start of NB #2 Looking North



End of NB #2 Looking South



Start of SB #2 Looking South



End of SB #2 Looking North



Start of NB #3 Looking North



End of NB #3 Looking South



Start of SB #3 Looking South



End of SB #3 Looking North



Start of NB #4 Looking North



End of NB #4 Looking South



Start of SB #4 Looking South



End of SB #4 Looking North



Start of NB #5 Looking North



End of NB #5 Looking South



Start of SB #5 Looking South



End of SB #5 Looking North



APPENDIX I – STAKEHOLDER CORRESPONDENCE

**Email from Central Iowa Power Cooperative
(Received 01/25/2023)**

From: Adam Clymer
Sent: Wednesday, January 25, 2023 2:05 PM
To: Billhorn, Krista
Cc: Dan Ketchum; Chad Hildreth; Tim Root

Subject: IA 150 Planning Study - NHSX-150-2(30)--3H-06

Krista,

CIPCO received the DOT letter regarding the Hwy 150 Super-2 planning study. CIPCO has a 69kV transmission line along the route from Hwy 20 south 5.5 miles to 290th St which is west of the town of Rowley. CIPCO has all private easement for this line(s). If the DOT plans to acquire additional ROW, the CIPCO line will need to be moved at the expense of the DOT.

Please keep CIPCO informed regarding the progress of the project.

Thanks,
Adam Clymer
Senior Transmission Engineer
Central Iowa Power Cooperative (CIPCO)
Main: 319.734.4323 Cell: 319.521.7263

Letter from Hazelton Resident
(Received 02/01/2023)

Krista

I live along Hwy 150 south of Hazelton about a mile across from Jaspers RV. My street is 133rd. I have a creek which the state put a culvert in when they rebuilt Hwy 150 years ago. I think the project would be a good idea,

Here is my concern a couple of years ago I applied to have some creek bank erosion fixed the project was approved but for one item. The state archeologist had information there were Active American settlements here and needed to do a study. I did not proceed with my project.

If you proceed with yours you might want to go back when they rebuilt the road and check that study so you don't run into the same issue.

Again, I think your plan is a good one

Record of Conversation (01/25/2023)
Media Contact

SUBMITTED BY

Submitted by: Krista Billhorn

Submitter's email: Krista.Billhorn@iowadot.us

Bureau/Division: Transportation Development

CONTACTED BY

Contacted by: Jeff Holmes

Business/Office: Vinton Newspaper

City: Vinton

State: IA

Phone: 319-472-2311

Email:

DISCUSSION

Discussion summary:

Mr. Holmes called about the IA 150 PEL study and what it entailed. We discussed passing opportunities, turning lanes, and improvement alternatives in Independence. Mr. Holmes will use the map from the PowerPoint on our public meeting website as a graphic in his news article. He stated his news company has readership in all cities along IA 150 from in Calmar to Vinton.

Is any additional follow-up required? No



February 2, 2023

Leo Lodholz
1927 133rd Street
Hazelton, IA 50641-9610

Dear Mr. Lodholz,

Thank you for sending your comment regarding the potential for Native American settlements that may be protected. For each project, we must do research for any type of protected item, be it historic, and animal or plant related. We have a team of people that begin the research on known information as well as conduct research and verification on location, in some instances. We are Federally required to do so. By all means, we appreciate the reminder.

Hopefully the study will give us good information for future projects that will enhance the IA 150 highway corridor.

Thank you very much for taking the time to write to me with your information and support for the study.

Sincerely,

A handwritten signature in black ink, appearing to read 'Krista L. Billhorn'.

Krista L. Billhorn
District Planner

KLB/ac

Email Correspondence (January 2023)
Media Contact

From: Billhorn, Krista
Sent: Tuesday, January 31, 2023 10:09 AM
To: XXXX; Kluesner, Terrance <TERRY.KLUESNER@IOWADOT.US>
Cc: XXXX
Subject: RE: Planning study on Iowa 150 - A proposed driveway

Good morning XXXX,
I am forwarding your request to the appropriate staff at the District 6 office in Cedar Rapids. I am a Planner that works on projects and studies before they go to engineering. You will be working with Terry Kluesner, an Engineering Operations Technician, that will review the location and if it can be done by a Permit. Thank you for contacting me.

Terry, please see the attached request for a driveway.

Thank you all,
Krista

From: XXXX
Sent: Monday, January 30, 2023 9:47 PM
To: Billhorn, Krista <Krista.Billhorn@iowadot.us>
Cc: XXXX
Subject: Fwd: Planning study on Iowa 150 - A proposed driveway

Dear Krista Billhorn,
I am resending my email as the map attached in the first email became distorted and placed markings in the wrong location. Please see the corrected map "USDA Map of farm with potential driveway location".

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

From: XXXX
Date: Mon, Jan 30, 2023 at 9:33 PM
Subject: Planning study on Iowa 150 - A proposed driveway
To: <krista.billhorn@iowadot.us>
Cc: XXXX

Dear Krista Billhorn,

We made a comment concerning a proposed driveway from our farm onto Iowa 150. My wife received a phone call today asking for more details concerning the location. Please see the attached map of the 200+ acre farm. On the map, I placed an arrow showing the proposed location, give or take. According to Google map, this location is about:



Early July 26, 2021, I spoke with Joel Keim, cell phone: 319-310-2793, of the Iowa Department of Transportation about the proposed driveway.

Best Regards,
XXXX
Pekin, IL

APPENDIX J – INDEPENDENCE STUDY



IA 150 Super Two Planning Study Independence Study

August 2023



IA 150 SUPER TWO STUDY

Today's Agenda



- Study Overview/Scope
 - Super Two Study
 - Downtown Independence Study
- Downtown Independence Alternatives
 - Study Goals and Approach
 - Alternatives Considered
 - Evaluation of Alternatives
 - PMT and Local Input
- Proposed Corridor-wide Super Two Sequencing Layouts (3 alternatives)
- Proposed Corridor-wide Improvements

IA 150 SUPER TWO STUDY

Study Overview/Scope

Study Area

- Project Limits - 28 miles in length
 - I-380 to IA 281/100th St
- Benton, Buchanan, Fayette counties

Project Purpose

- Evaluate and document existing conditions and seek stakeholder input on future needs of IA 150
- Identify possible future improvements for project development and funding

Improvements Being Explored

- Potential Super Two passing lanes
- Spot corridor improvements to address deficiencies
- IA 150 routing options in Downtown Independence

Vision Document will summarize findings and potential future improvements



INDEPENDENCE

Study Area and Scope

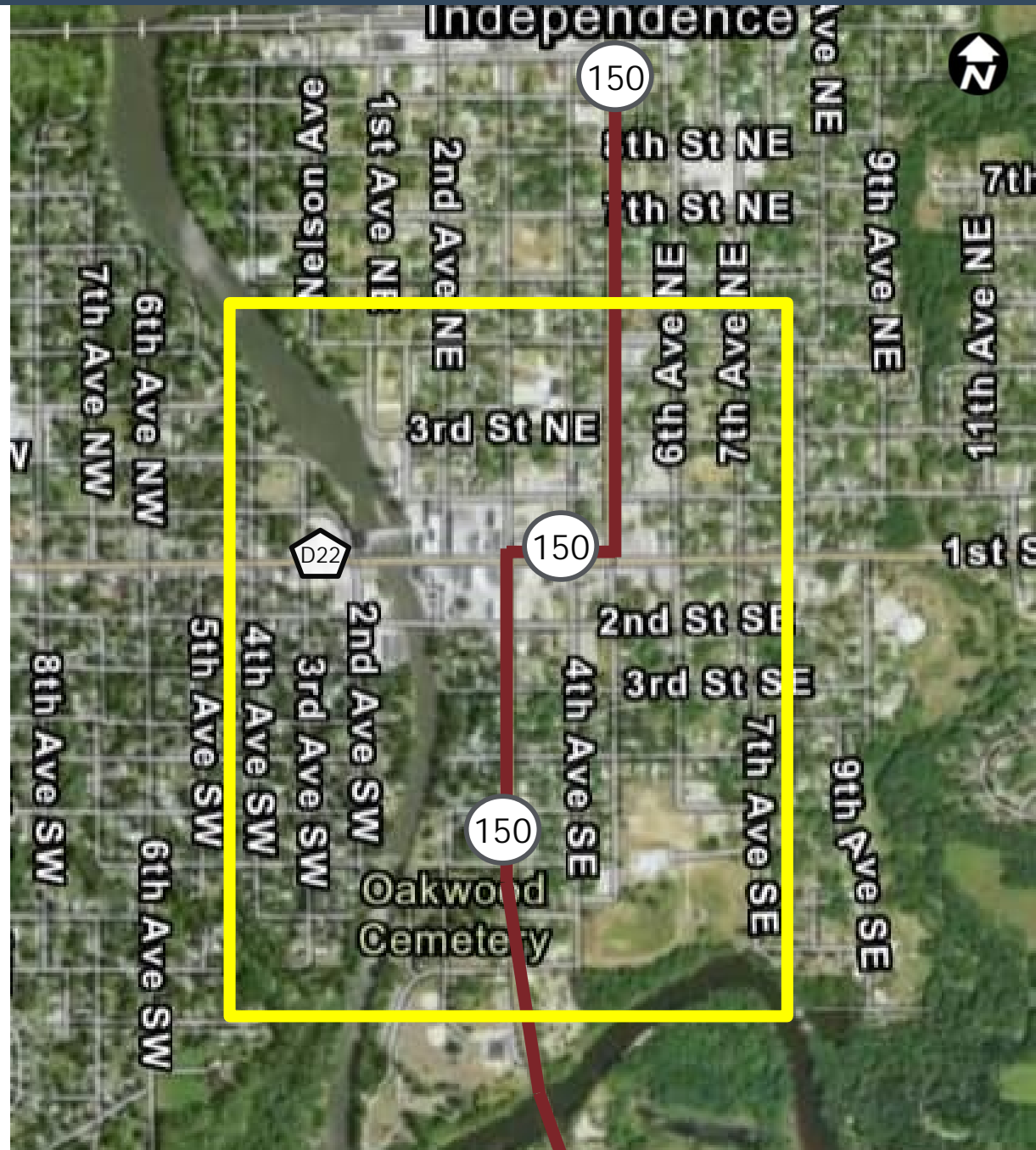
Study Area

- Downtown Independence
- Slightly expanded area of the Downtown Revitalization Plan area
- Large enough area to develop multiple options

Scope

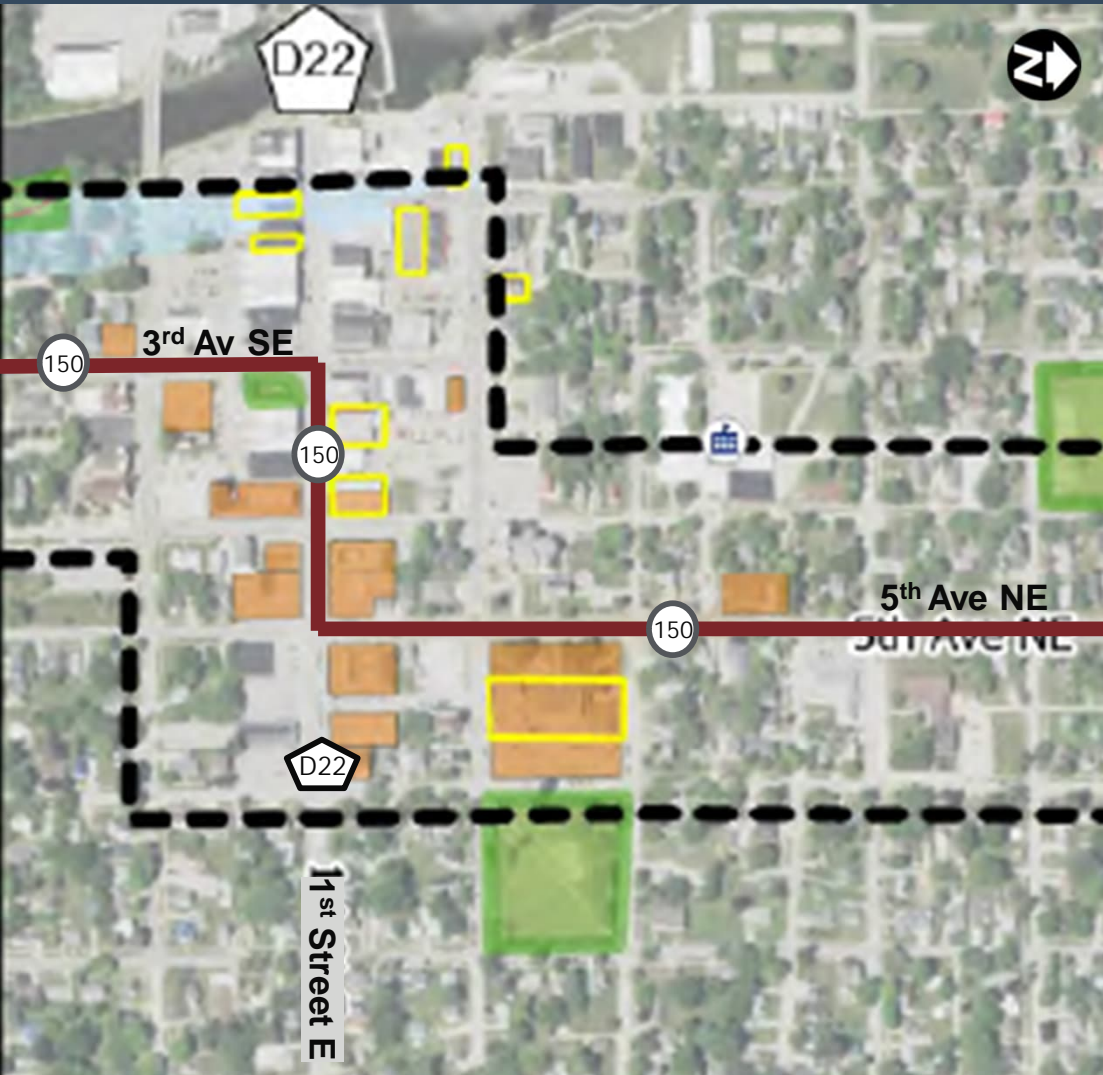
- Through town study, not a bypass study
- Develop alternatives to address travel demand along IA 150 through the downtown area
- Summarize the pros and cons of each alternative
- Screen to 2 concept alternatives, based on technical analyses and agency and stakeholder input

Downtown Independence Alternatives Development and Evaluation Process will be summarized in the Vision Document



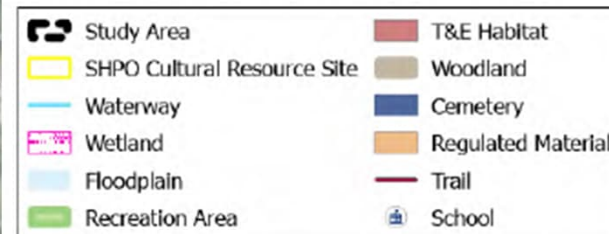
INDEPENDENCE

Environmental Resources



Environmental resources along IA 150:

- Cultural Resource/ Historic Buildings
- Recreation Areas/Parks
- Regulated Materials
- Floodplain



Base Map Source: NAIP Imagery
Data Sources: IADOT, IADNR, FEMA

INDEPENDENCE

Prior Transportation Studies

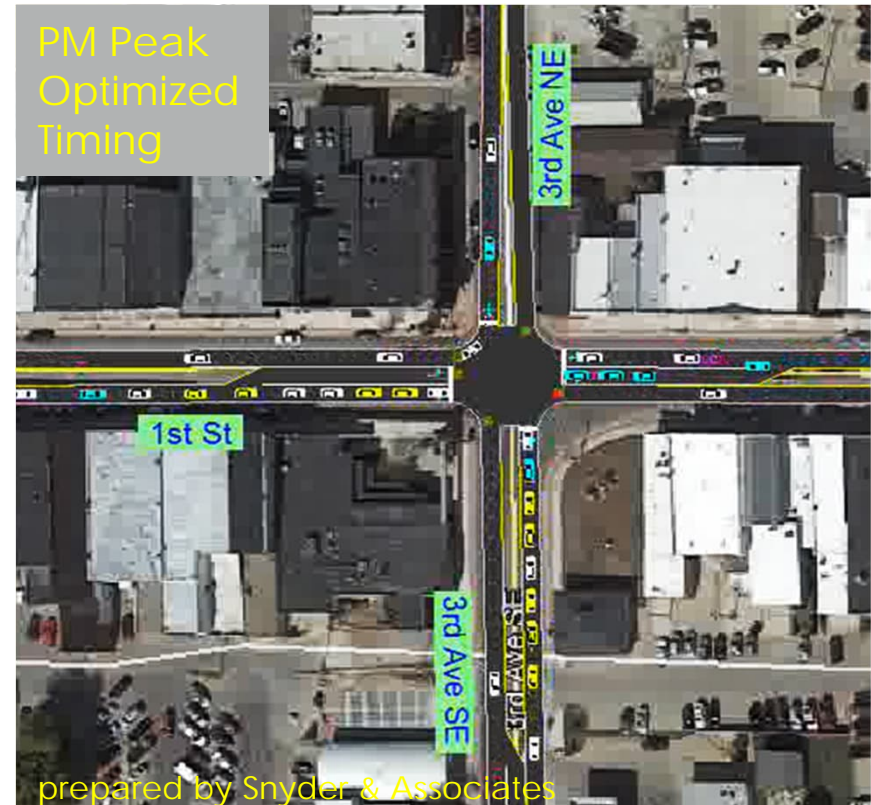
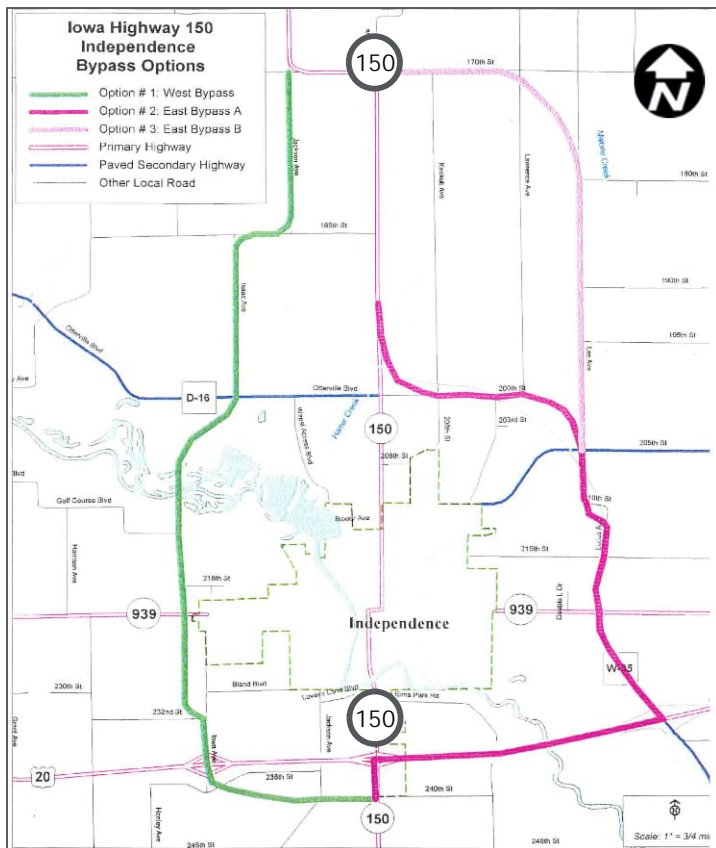
Highway 150 Corridor Study (early 2000s)

- Intended to study bypass alternatives (study not completed)
- Several issues identified >20 years ago remain:
 - No queue space between the turns
 - Pedestrian safety concerns crossing of IA 150 especially along 1st Street

Independence off-alignment alternatives are not being investigated as part of the Super Two Study

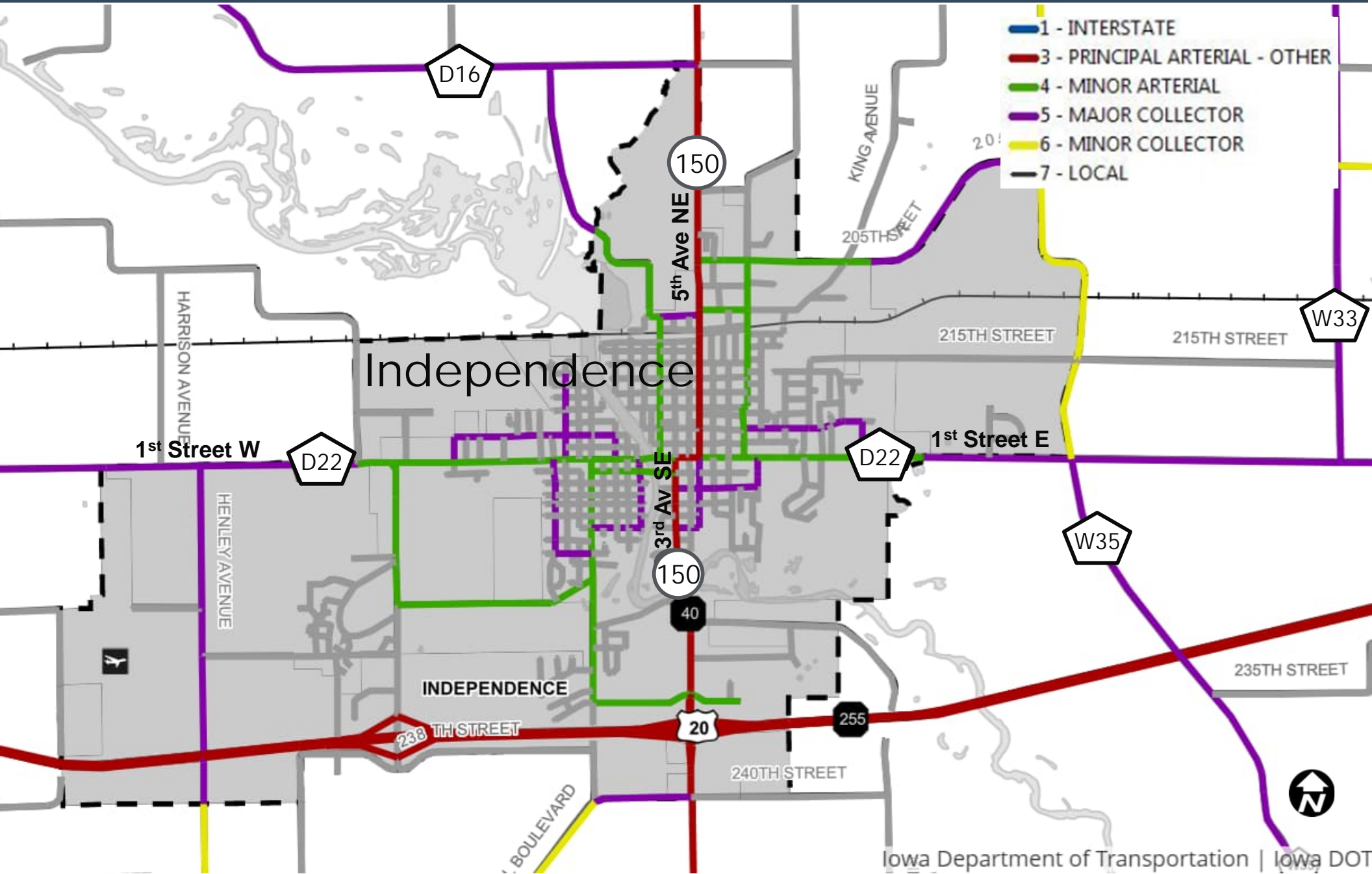
1st Street Signal Timing Improvements (TEAP study)

- Traffic signal timing was optimized to give preference to the Highway 150 movements while improving pedestrian mobility.
- AM peak and PM peak timing plans with 80 second cycles
- Additional green and all-way red time added to each movement.
- The proposed improvements are expected to increase driver delay along IA 150 and CR D22.



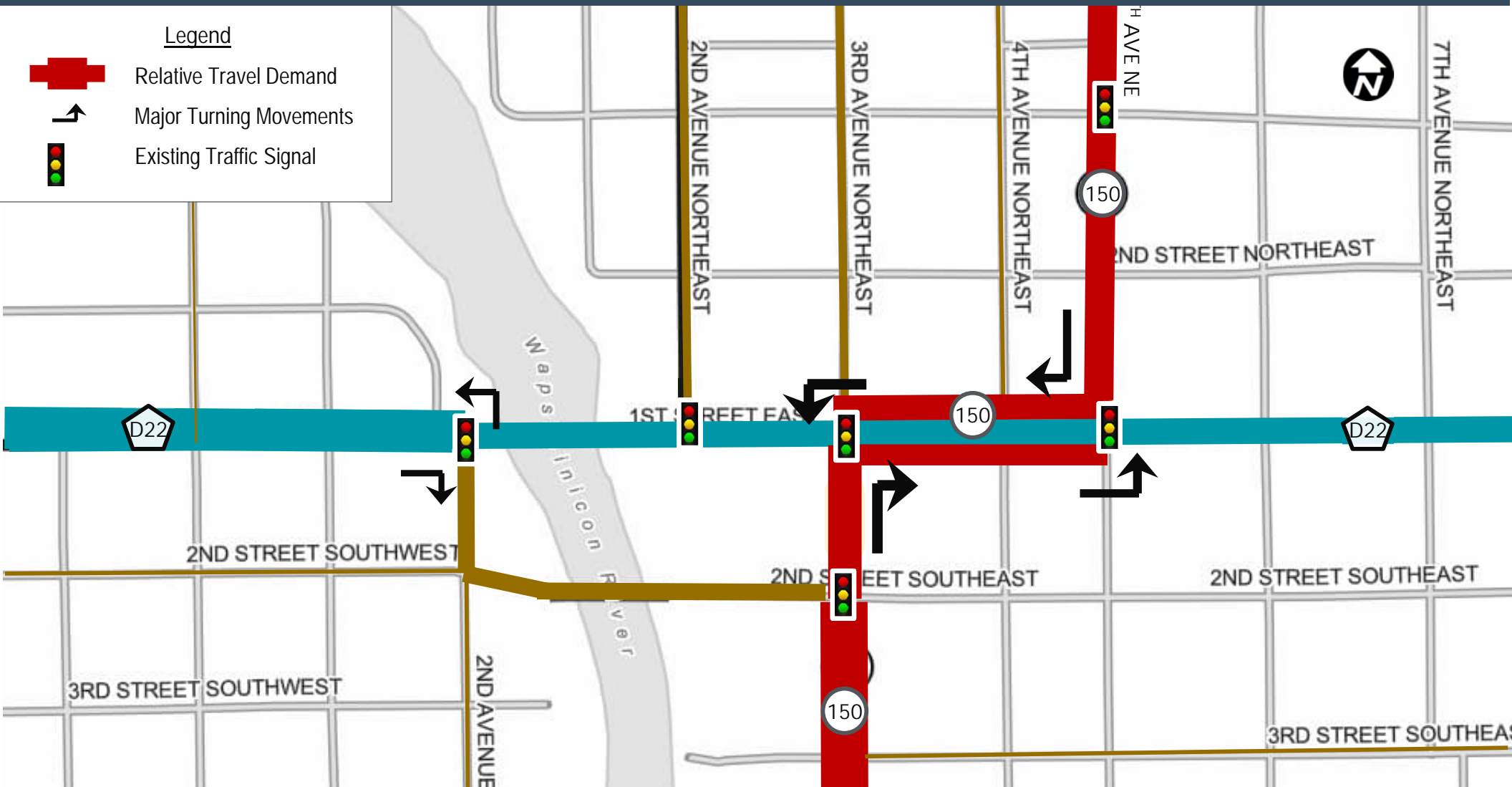
INDEPENDENCE

Existing Transportation Network



INDEPENDENCE

Existing Travel Patterns

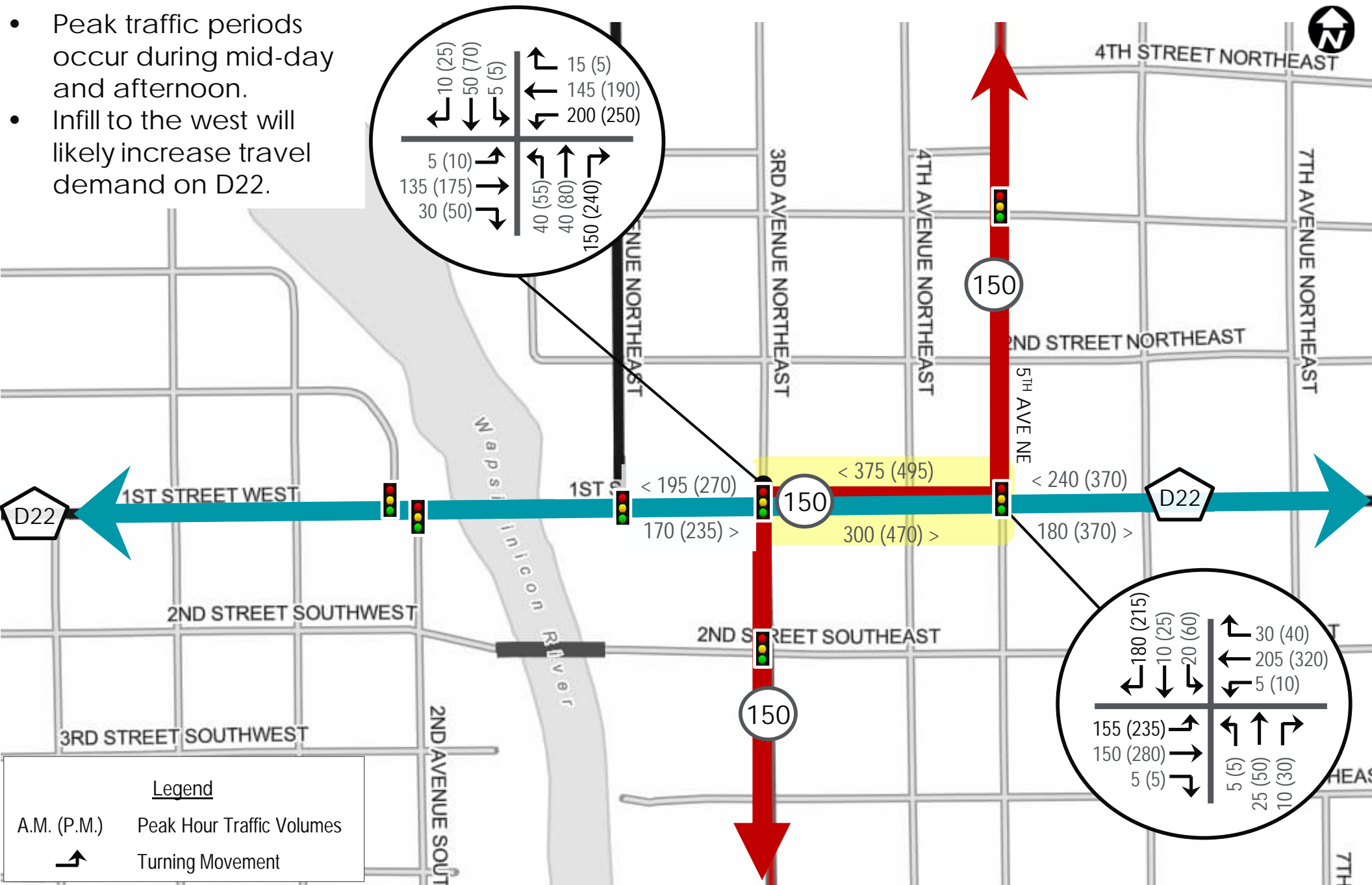


- E-W and N-S travel routes converge in Downtown Independence
- Travel demand greatest along 1st Street between 3rd and 5th Aves
- Approximately 10% trucks on IA 150
- Challenging for pedestrians to cross 1st Street intersections in this area, especially at 3rd Avenue

INDEPENDENCE

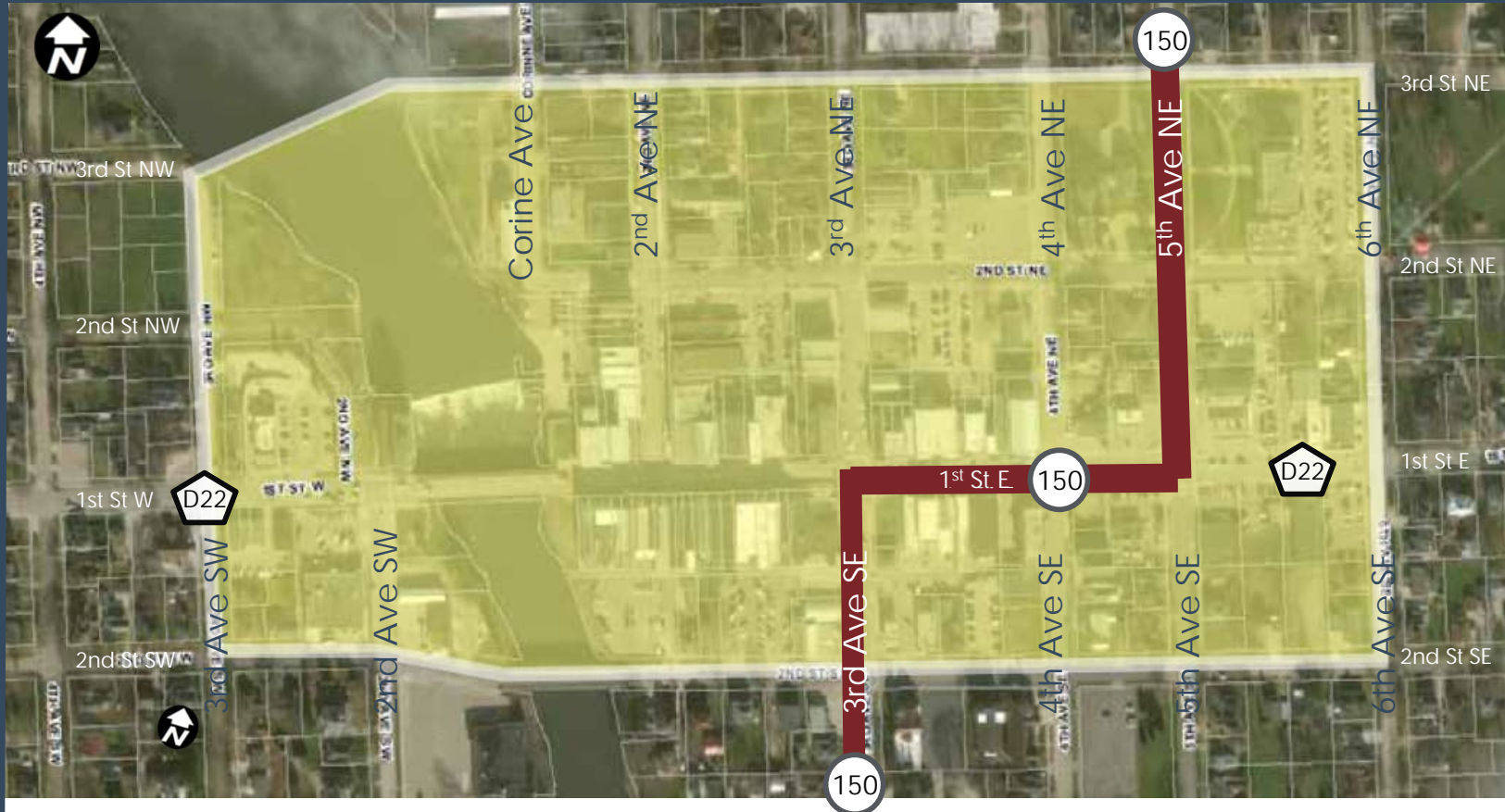
Traffic Patterns/Peak Hour Traffic

- Peak traffic periods occur during mid-day and afternoon.
- Infill to the west will likely increase travel demand on D22.



INDEPENDENCE

Downtown Revitalization Area (2021 Study)



Independence Downtown Revitalization Plan 2021



- Revitalization plans for Downtown Independence
- Goal is to attract visitors and commerce
- Revitalization area (0.1 sq mile area)
 - W-E from 3rd Ave SW to 6th Ave SE (0.44 miles)
 - N-S from 3rd St NW/NE to 2nd St SW/SE (0.23 miles)

INDEPENDENCE

Major Travel Patterns and Future Needs Assessment

- 1st St E traffic volumes double between 3rd Ave and 5th Ave due to the combined E-W and N-S travel patterns
- IA 150 traffic volumes are not expected to decrease, including 10% trucks in the mix
- E-W traffic volumes likely to increase due to planned growth to the south and west
- Downtown Revitalization Plan (2021) is designed to attract more trips to the area
- Independence is already seeking options through TEAP to improve pedestrian walkability based on existing traffic volumes – WILL ONLY GET WORSE
- Increase in travel demand along 1st Street will continue to present challenges in addressing the City's walkability goals.



1st St E looking west towards 3rd Avenue



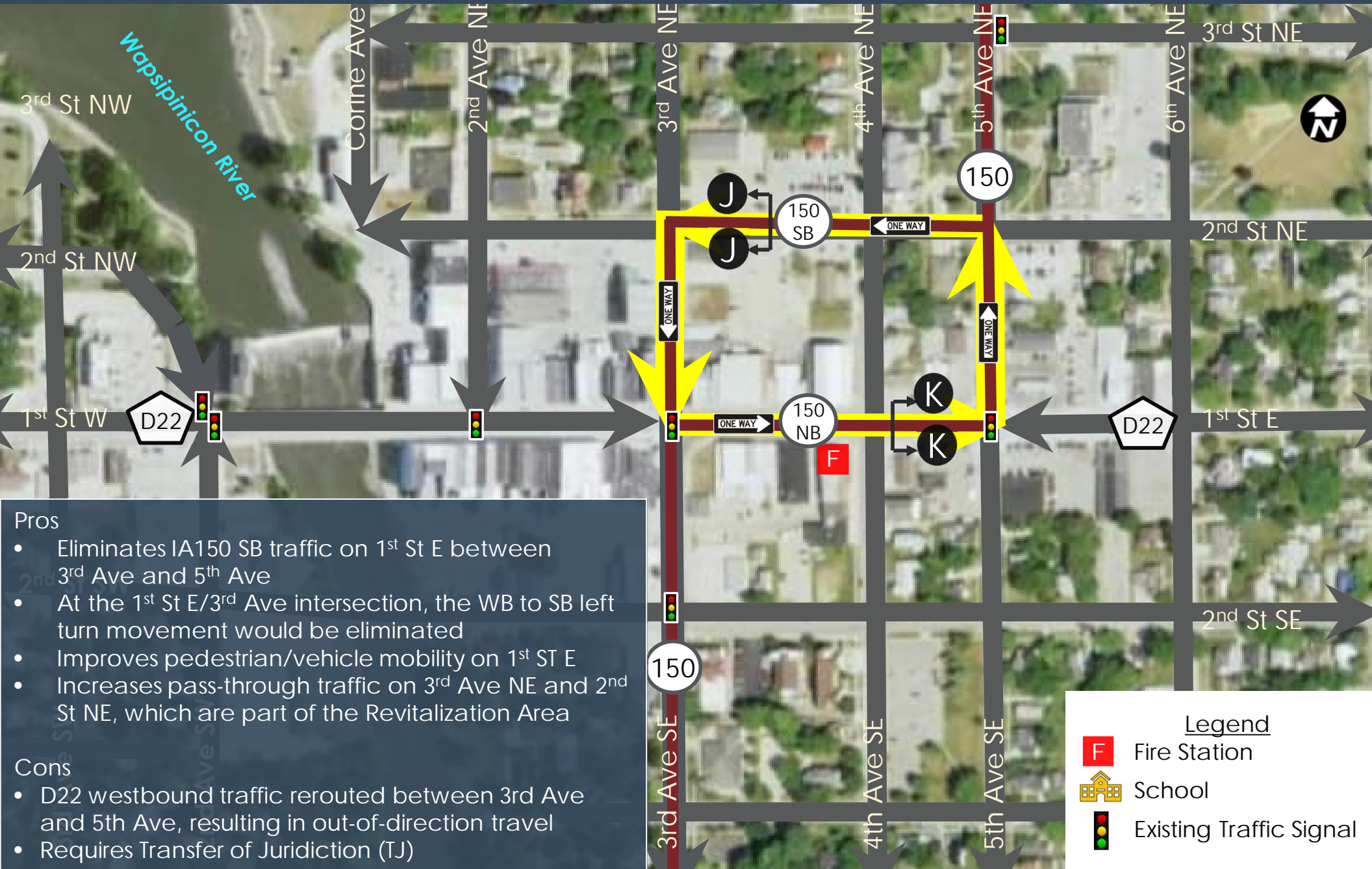
1st St E looking east towards 5th Avenue

Alternatives developed that consider existing and future needs of the City while providing safe transportation solutions for all modes of travel.



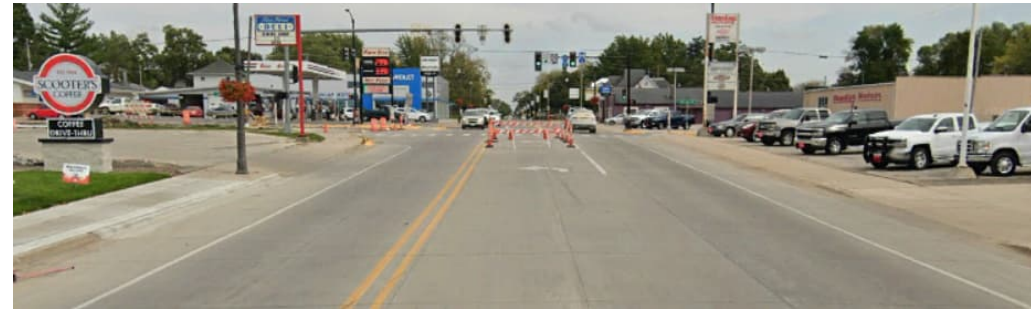
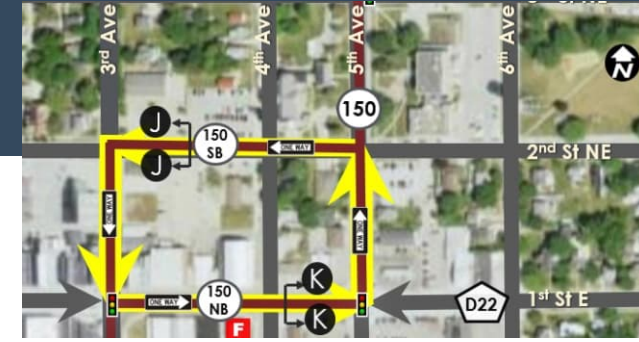
ONE-WAY PAIR ALTERNATIVES

Alternative 1 – ORIGINAL CONCEPT

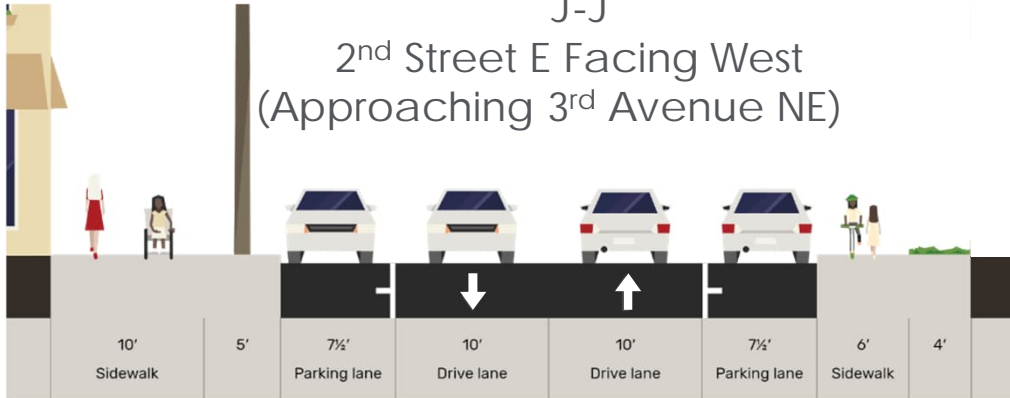




1st St E & 2nd St NE (Alternative 1) REDISTRIBUTED TRAVEL WAY



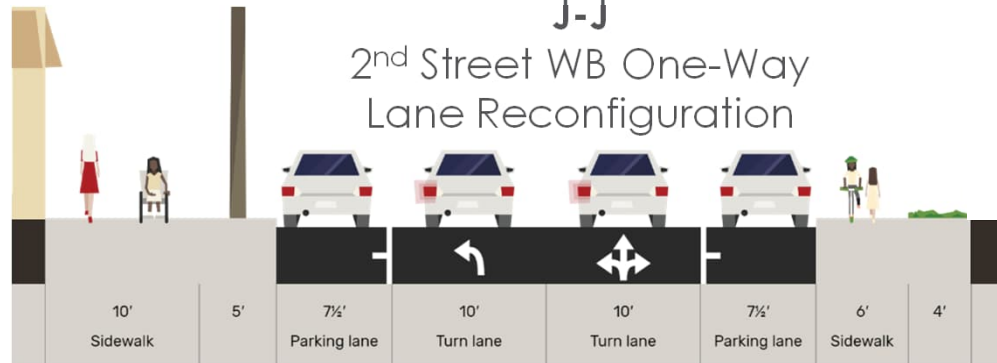
J-J
2nd Street E Facing West
(Approaching 3rd Avenue NE)



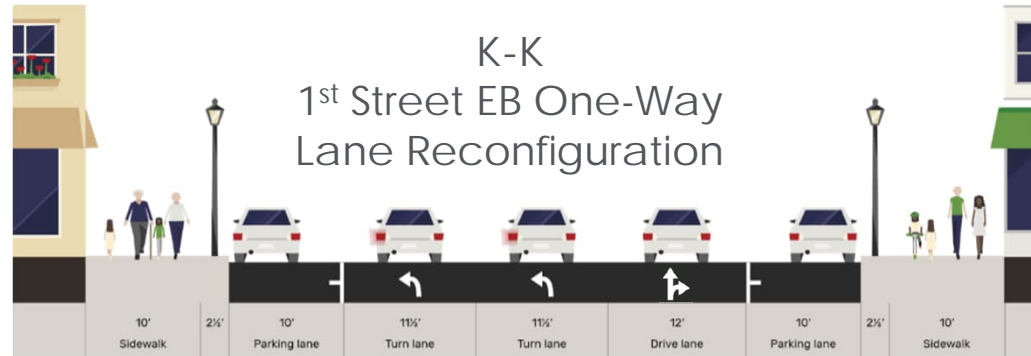
K-K
1st Street E Facing East
(Approaching 5th Ave NE)



J-J
2nd Street WB One-Way
Lane Reconfiguration



K-K
1st Street EB One-Way
Lane Reconfiguration





ONE-WAY PAIR ALTERNATIVES

Alternative 2 – IA 150 SB SHIFTED TO THE NORTH

Pros

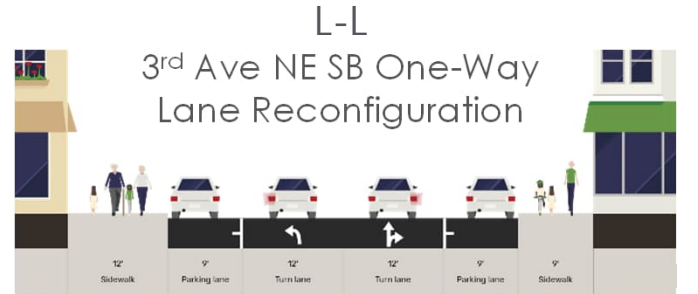
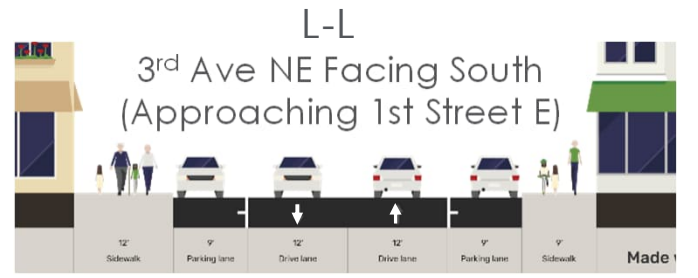
- Reduces travel demand on 1st St E by relocating IA150 SB to 2nd St NE/3rd Ave NE
- At the 1st St E/3rd Ave intersection, the WB to SB left turn movement would be significantly reduced
- Maintains two-way traffic along 1st St E
- Increases pass-through traffic on 2nd St NE and 3rd Ave NE, which are part of the Revitalization Area

Cons

- Requires TJ



Wapsipinicon River





ONE-WAY PAIR ALTERNATIVES

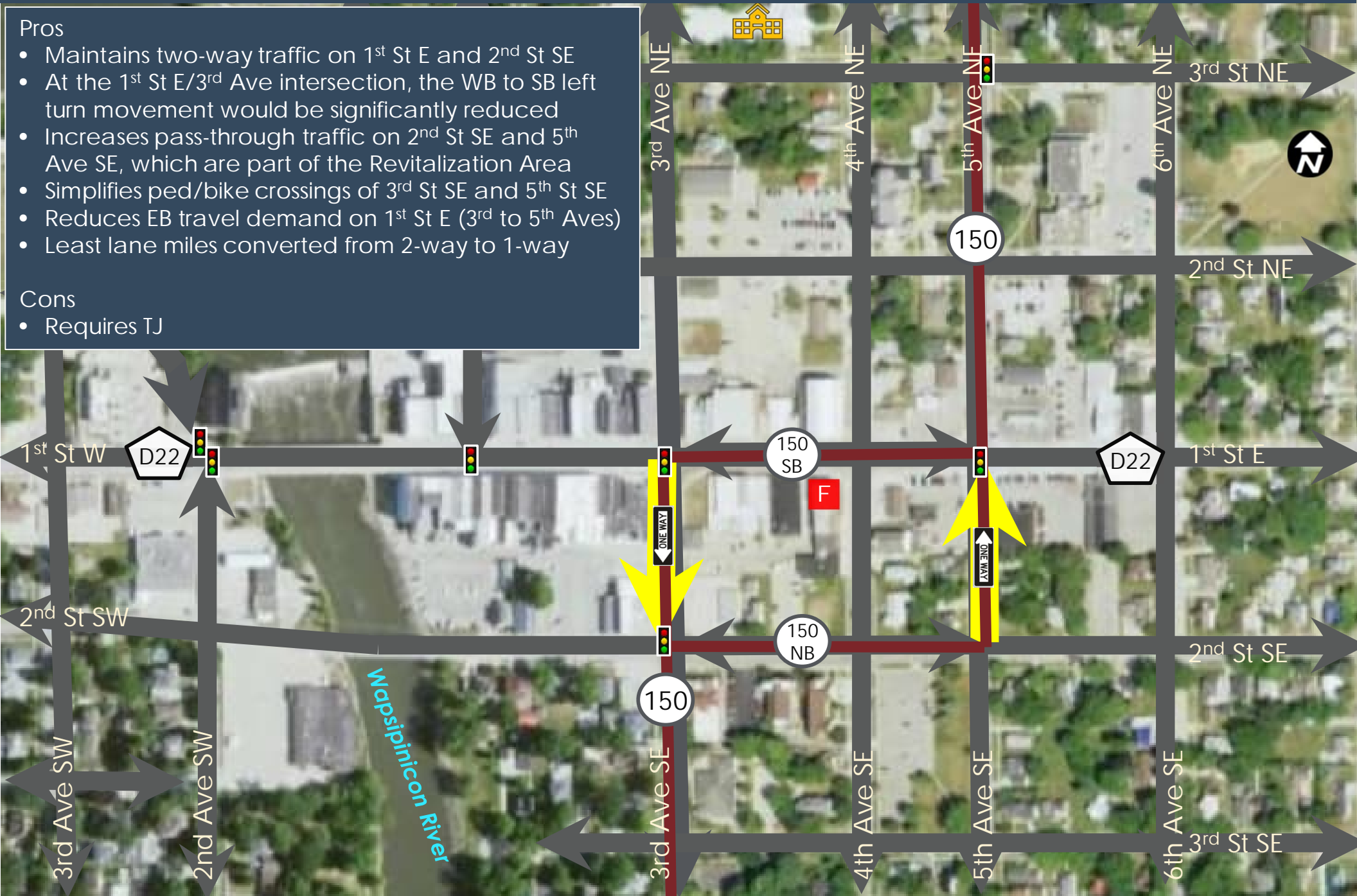
Alternative 3 – IA 150 NB SHIFTED TO THE SOUTH

Pros

- Maintains two-way traffic on 1st St E and 2nd St SE
- At the 1st St E/3rd Ave intersection, the WB to SB left turn movement would be significantly reduced
- Increases pass-through traffic on 2nd St SE and 5th Ave SE, which are part of the Revitalization Area
- Simplifies ped/bike crossings of 3rd St SE and 5th St SE
- Reduces EB travel demand on 1st St E (3rd to 5th Aves)
- Least lane miles converted from 2-way to 1-way

Cons

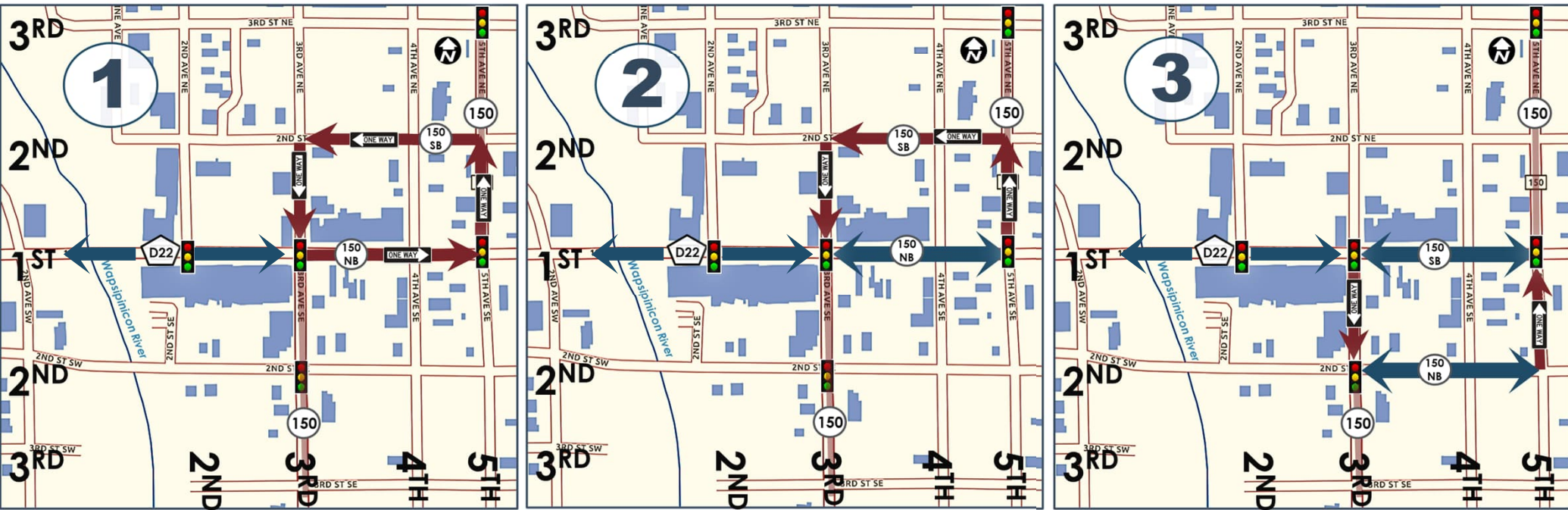
- Requires TJ





INDEPENDENCE ALTERNATIVES 1 THRU 3

IA 150 REMAINS ON 1ST ST E IN ONE DIRECTION



Alternative	In Revitalization Zone	1 st St Designated Route	N-S One-Way	E-W One-Way	Retains 1 st St as Two-Way Traffic
No-Build					
1		IA 150 NB D22 EB	NB: 5 th Ave NE SB: 3 rd Ave NE	WB: 2 nd St NE EB: 1 st ST E	One-Way EB, D22 Rerouted
2		IA 150 NB D22 EB EB/WB	NB: 5 th Ave NE SB: 3 rd Ave NE	WB: 2 nd St NE	
3		IA 150 SB D22 EB EB/WB	NB: 5 th Ave SE SB: 3 rd Ave SE		



ONE-WAY PAIR ALTERNATIVES

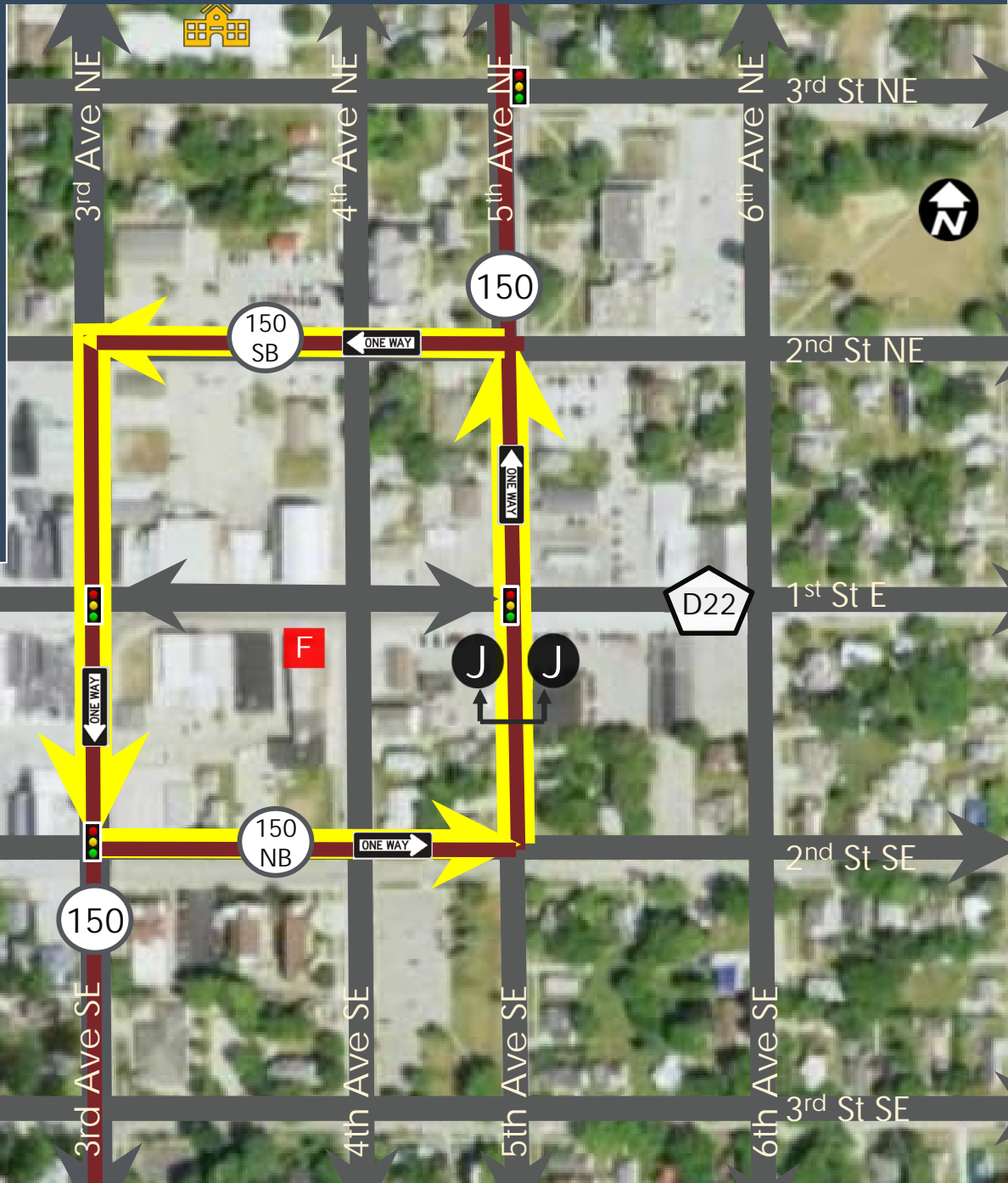
Alternative 4 – IA 150 SHIFTED NORTH AND SOUTH

Pros

- Significantly reduces travel demand along 1st St E between 3rd Ave and 5th Ave
- Maintains two-way traffic on 1st St E
- Increases pass-through traffic on 2nd St NE and SE, 3rd Ave NE, and 5th Ave SE, which are of which all part of the Revitalization Area
- Reduces turning volumes at the 1st St E/5th Ave intersection for the EB to NB movement

Cons

- IA150 bypasses 1st St E commercial district
- Requires TJ for multiple roads
- Increases snow/regular maintenance areas for IA DOT





ONE-WAY PAIR ALTERNATIVES

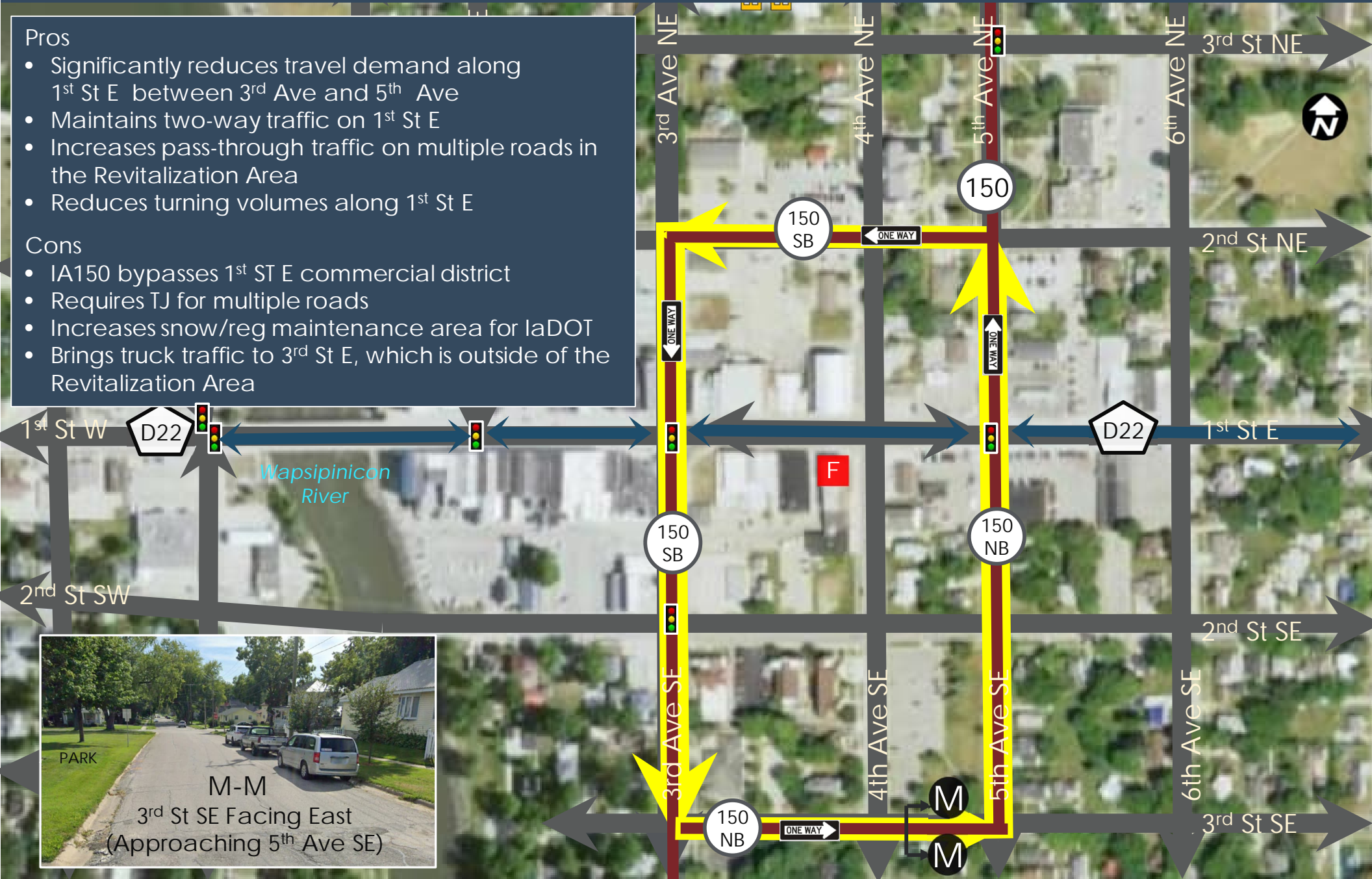
Alternative 5 – IA 150 SHIFTED NORTH AND SOUTH

Pros

- Significantly reduces travel demand along 1st St E between 3rd Ave and 5th Ave
- Maintains two-way traffic on 1st St E
- Increases pass-through traffic on multiple roads in the Revitalization Area
- Reduces turning volumes along 1st St E

Cons

- IA150 bypasses 1st St E commercial district
- Requires TJ for multiple roads
- Increases snow/reg maintenance area for IaDOT
- Brings truck traffic to 3rd St E, which is outside of the Revitalization Area



ONE-WAY PAIR ALTERNATIVES

Alternative 6 – ONE-WAY PAIRS NORTH/SOUTH OF DOWNTOWN



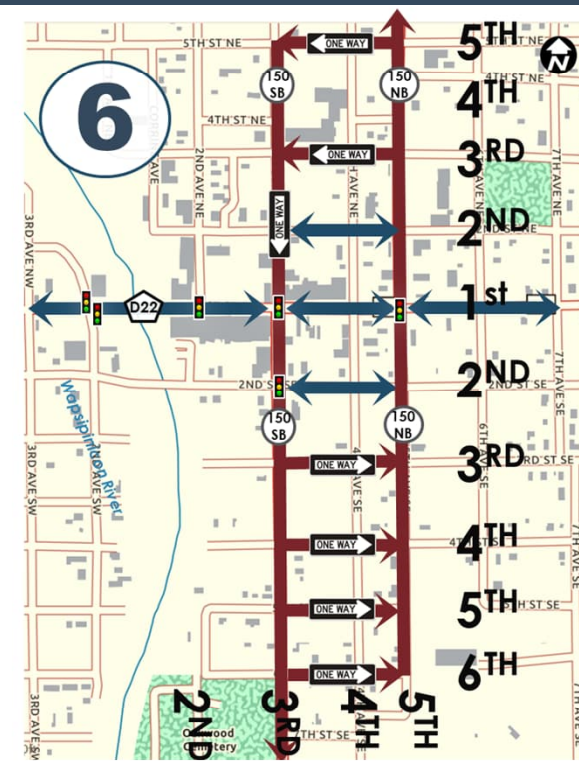
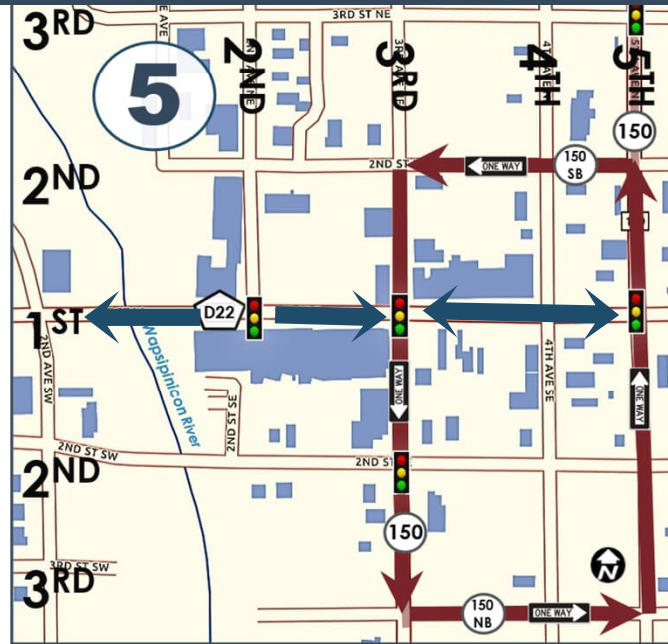
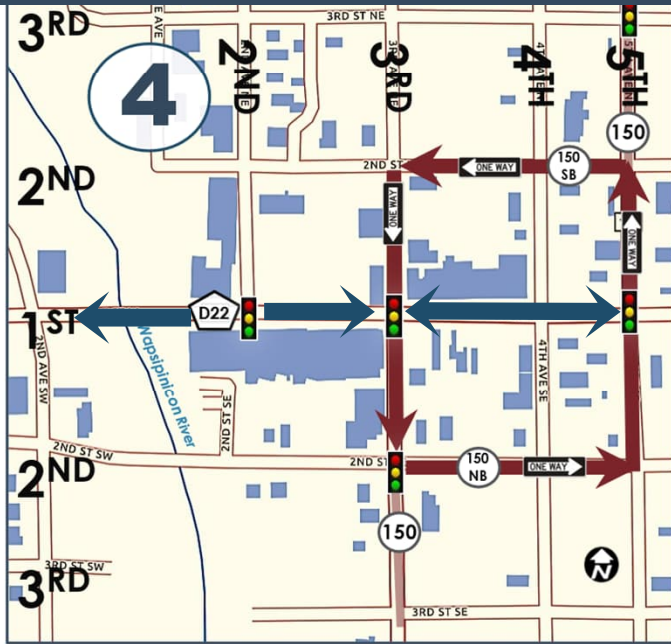
P-P
3rd St NE Facing West
(Approaching 4th Ave NE)



Q-Q
5th Ave SE Facing North
(Approaching 5th St SE)

- Pros
- Significantly reduces travel demand along 1st St E between 3rd Ave and 5th Ave
 - Maintains two-way traffic on 1st St E
 - Reduces turning volumes along 1st St E
 - One-way roads beneficial for peds/bikes
- Cons
- Outside the revitalization zone
 - IA150 bypasses 1st St E commercial district
 - Requires TJ for multiple roads
 - Increases snow/reg maintenance area for IA DOT
 - IA 150 NB/SB trips, including truck traffic, would be routed through residential neighborhoods

INDEPENDENCE ALTERNATIVES 4 THRU 6 IA 150 SHIFTED OFF OF 1ST ST E



Alternative	In Revitalization Zone	1 st St Designated IA 150	N-S One-Way	E-W One-Way	Retains 1 st St as Two-Way Traffic
No-Build	✓	✓	✗	✗	✓
4	✓	✗ D22 EB/WB	✓ NB: 5 th Ave NE/SE SB: 3 rd Ave NE/SE	✓ WB: 2 nd St NE EB: 2 nd St SE	✓ IA 150 shifted to parallel roadways
5	✗	✗ D22 EB/WB	✓ NB: 5 th Ave NE/SE SB: 3 rd Ave NE/SE	✓ WB: 2 nd St NE EB: 3 rd St SE	✓ IA 150 shifted to parallel roadways
6	✗	✗	✓ NB: 5 th Ave NE/SE SB: 3 rd Ave NE/SE	✓ WB: varies EB: varies	✓ IA 150 shifted to parallel roadways



ONE-WAY PAIR ALTERNATIVES

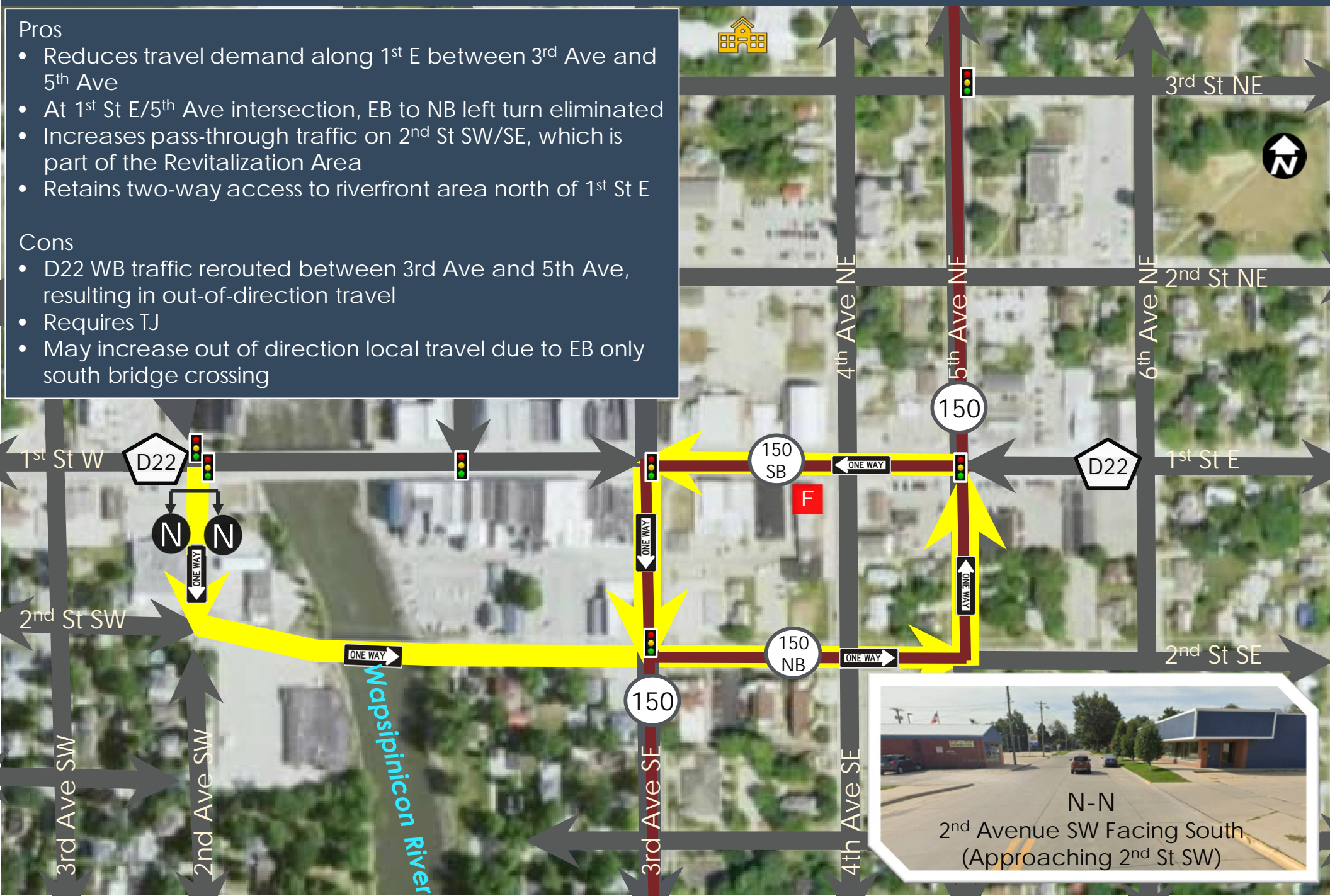
Alternative 7 – ONE-WAY PAIR ROADWAY NETWORK

Pros

- Reduces travel demand along 1st E between 3rd Ave and 5th Ave
- At 1st St E/5th Ave intersection, EB to NB left turn eliminated
- Increases pass-through traffic on 2nd St SW/SE, which is part of the Revitalization Area
- Retains two-way access to riverfront area north of 1st St E

Cons

- D22 WB traffic rerouted between 3rd Ave and 5th Ave, resulting in out-of-direction travel
- Requires TJ
- May increase out of direction local travel due to EB only south bridge crossing





ONE-WAY PAIR ALTERNATIVES

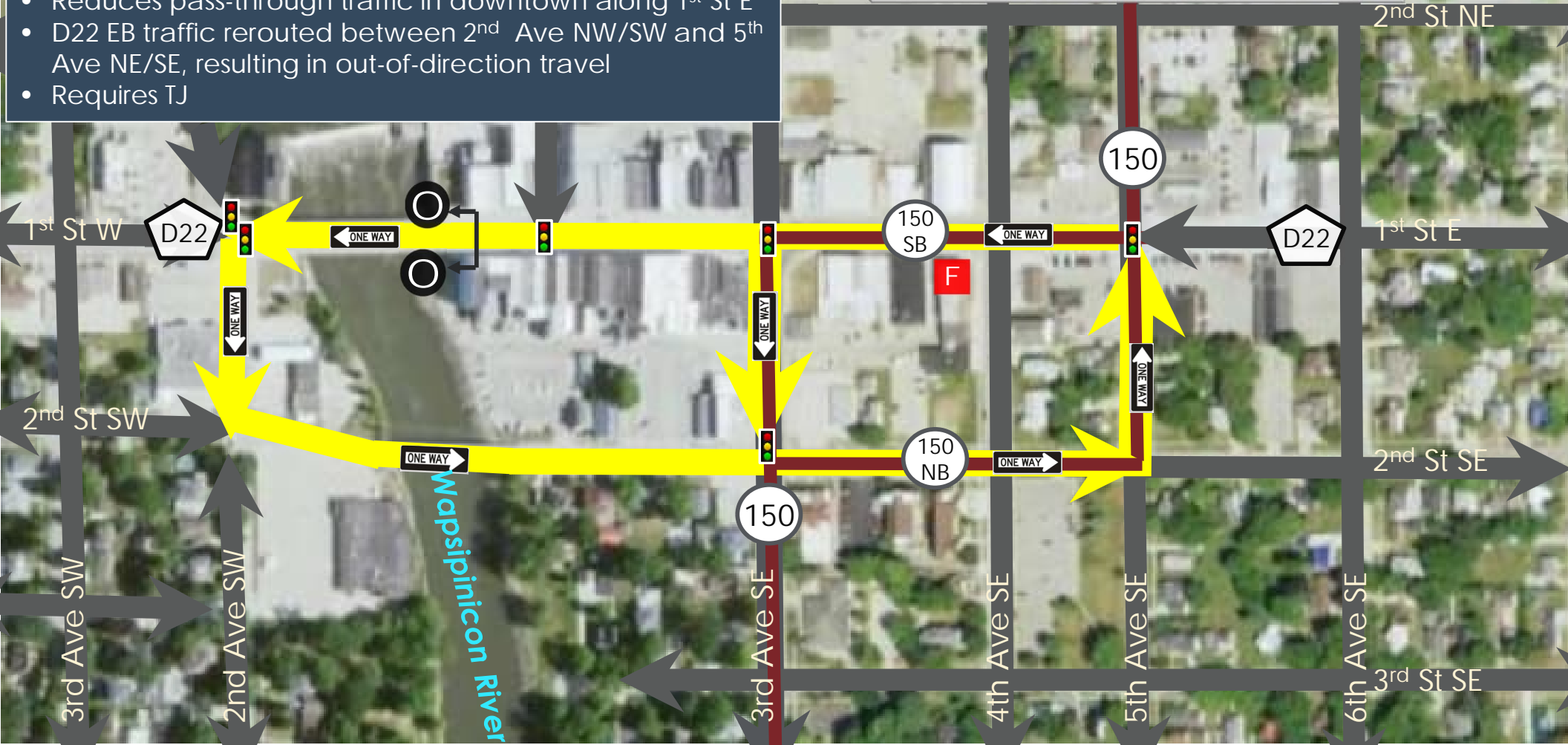
Alternative 8 – ONE-WAY PAIR ROADWAY NETWORK

Pros

- Reduces travel demand along 1st St W/E between 2nd Ave NW/SW and 5th Ave NE/SE
- Increases pass-through traffic on 2nd St SW/SE, which is part of the Revitalization Area
- Provides opportunity to expand pedestrian/bike path along one-way pair roadway network

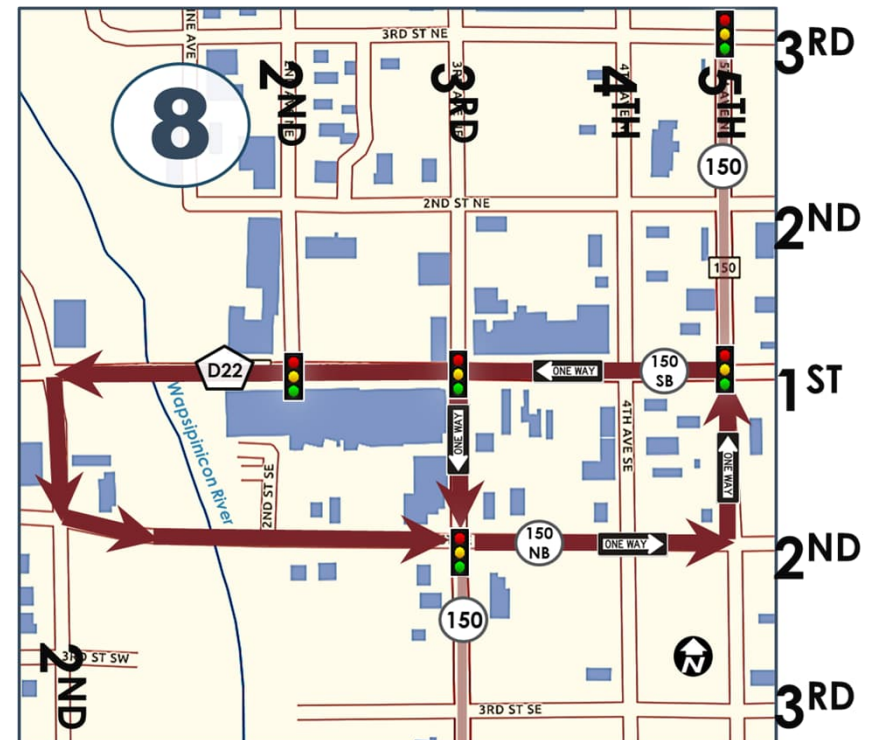
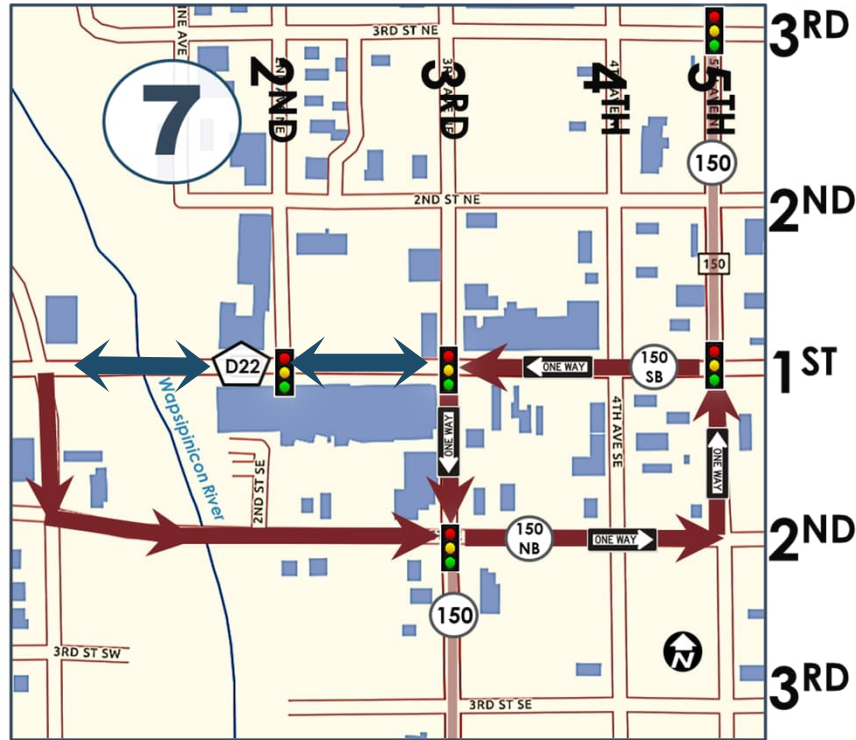
Cons

- Reduces pass-through traffic in downtown along 1st St E
- D22 EB traffic rerouted between 2nd Ave NW/SW and 5th Ave NE/SE, resulting in out-of-direction travel
- Requires TJ



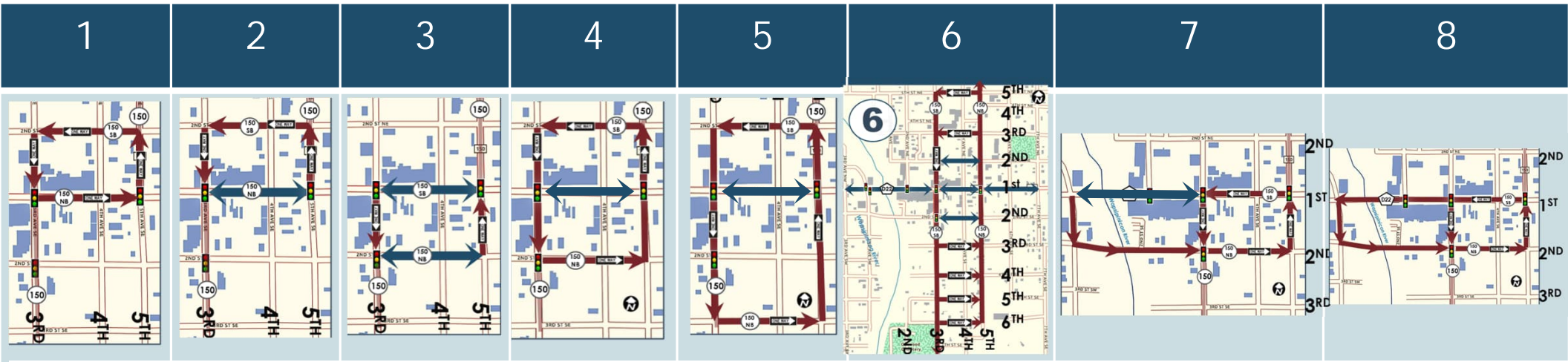
INDEPENDENCE ALTERNATIVES 7 AND 8

ONE-WAY PAIR NETWORK EXTENDS WEST OF RIVER CROSSING



Alternative	In Revitalization Zone	1 st St Designated IA 150	N-S One-Way	E-W One-Way	Retains 1 st St as Two-Way Traffic
No-Build	✓	✓	✗	✗	✓
7	✓	✓ IA 150 SB D22 WB	✓ NB: 5 th Ave SE SB: 2 nd St SW 3 rd Ave SE	✓ WB: 1 st St E EB: 2 nd St SE	✗ One Way WB IA 150 shifted to parallel roadways
8	✓	✓ IA 150 SB D22 WB	✓ NB: 5 th Ave SE SB: : 2 nd St SW 3 rd Ave SE	✓ WB: 1 st St E EB: 2 nd St SE	✗ One Way WB IA 150 shifted to parallel roadways

Downtown Independence One-Way Pair Alternative Summary



1st Street West – East Proposed Route Designation/Direction of Travel

IA 150 NB D22 EB	IA 150 NB D22 EB/WB	IA 150 SB D22 EB/WB	D22 EB/WB	D22 EB/WB	D22 EB/WB	IA 150 SB D22 EB/WB (W of 3 rd E) D22 WB(E of 3 rd E)	IA 150 SB D22 WB (2 nd Ave W to 5 th Ave E)
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One-way Pairs Located Within The Revitalization Zone

Yes	Yes	Yes	Yes	No, EB Outside	E-W No N-S Partially Outside	Yes	Yes
-----	-----	-----	-----	-------------------	------------------------------------	-----	-----

Results In Out-of-direction Travel For IA150 or D22

Yes D22 WB	No	No	No	No	No	Yes D22 EB	Yes D22 EB
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Total Length Of One One-way Pair Network (miles)

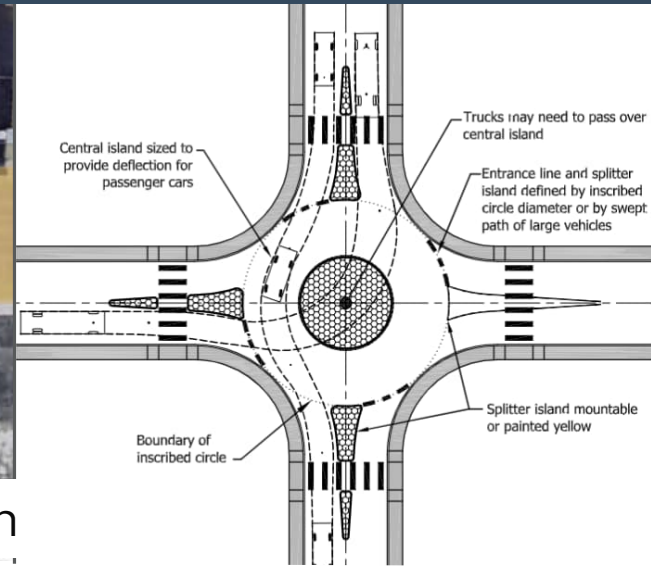
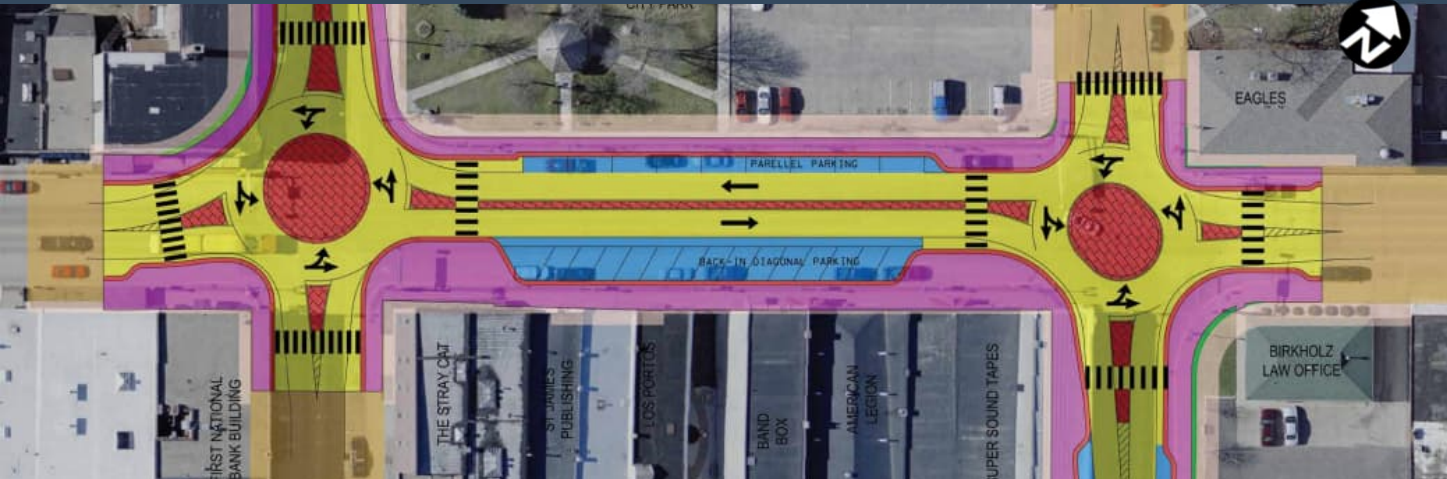
E/W .25 m N/S .15 m Total 0.40 m	E/W .12 m N/S .15 m Total 0.27 m	E/W 0 m N/S .16 m Total 0.16 m	E/W .25 m N/S .31 m Total 0.56 m	E/W .25 m N/S .50 m Total 0.75 m	E/W .25 m N/S .75-1.4 m Total 1-1.65 m	E/W 0.44 m N/S 0.22 m Total 0.66 miles	E/W 0.61 M N/S 0.22 M Total 0.83 miles
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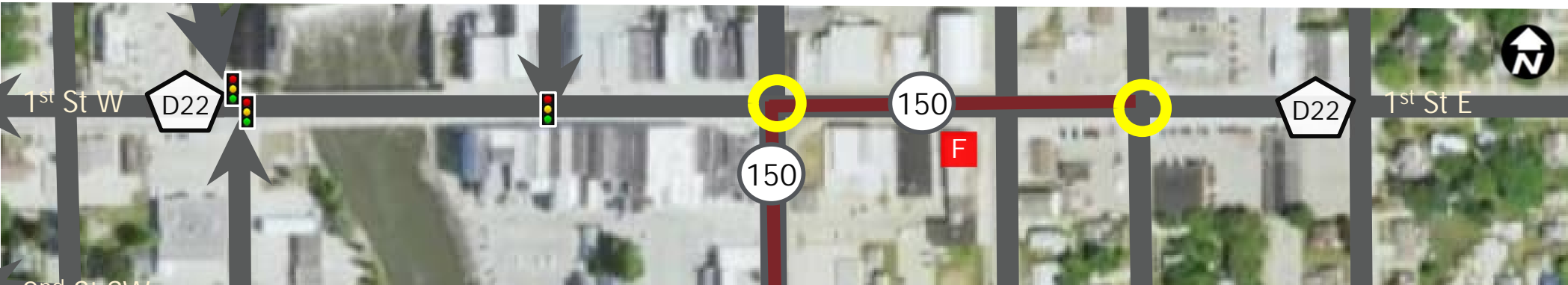


OTHER ALTERNATIVES CONSIDERED

Alternative 9 – MINI ROUNDABOUT DESIGN



Example: MnDOT mini-roundabout constructed in St. James, Mn



Pros

- Creates a more walkable community
- Maintains two-way traffic on 1st St E
- Eliminates long-term maintenance costs for two traffic signals

Cons

- Significant truck traffic which may need to pass over the central island to make their turn
- Potential for ROW impact at the corners of existing intersections
- One lane mini-roundabout can effectively manage 1600 approach vph. If there is a substantial increase in travel demand as compared to existing, there would not be sufficient capacity during peak periods
- May be limited gaps for pedestrians on certain legs of the intersection during noon and evening peak periods

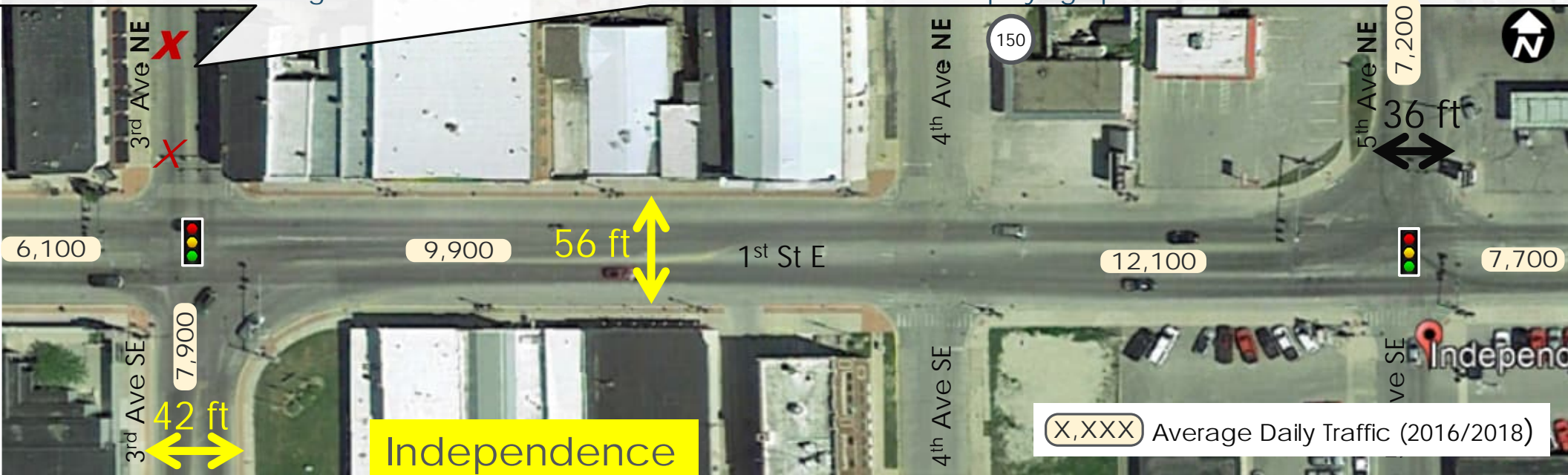


MINI-ROUNDAOBOUT COMPARISON ST JAMES, MINNESOTA VS INDEPENDENCE



For the mini-roundabout alternative, could improve operations by

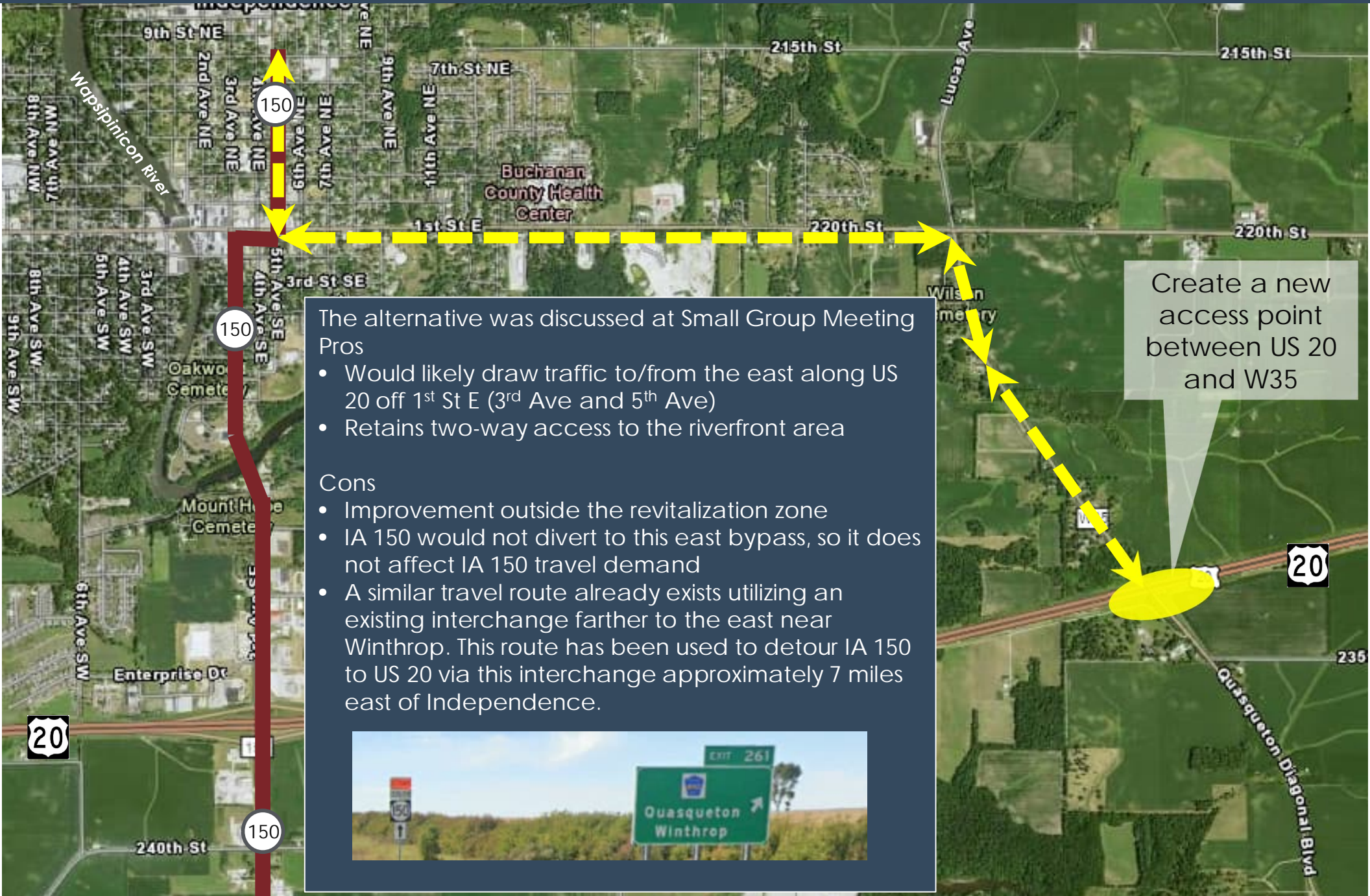
- combining roundabouts with an alternative that shifts one direction of IA150 to a parallel street
- eliminate the north leg of the 3rd Ave/1st St E roundabout intersection to simplifying operations





OTHER ALTERNATIVES CONSIDERED

Alternative 10 - US 20 EAST BYPASS OF DOWNTOWN




The alternative was discussed at Small Group Meeting Pros

- Would likely draw traffic to/from the east along US 20 off 1st St E (3rd Ave and 5th Ave)
- Retains two-way access to the riverfront area

Cons

- Improvement outside the revitalization zone
- IA 150 would not divert to this east bypass, so it does not affect IA 150 travel demand
- A similar travel route already exists utilizing an existing interchange farther to the east near Winthrop. This route has been used to detour IA 150 to US 20 via this interchange approximately 7 miles east of Independence.



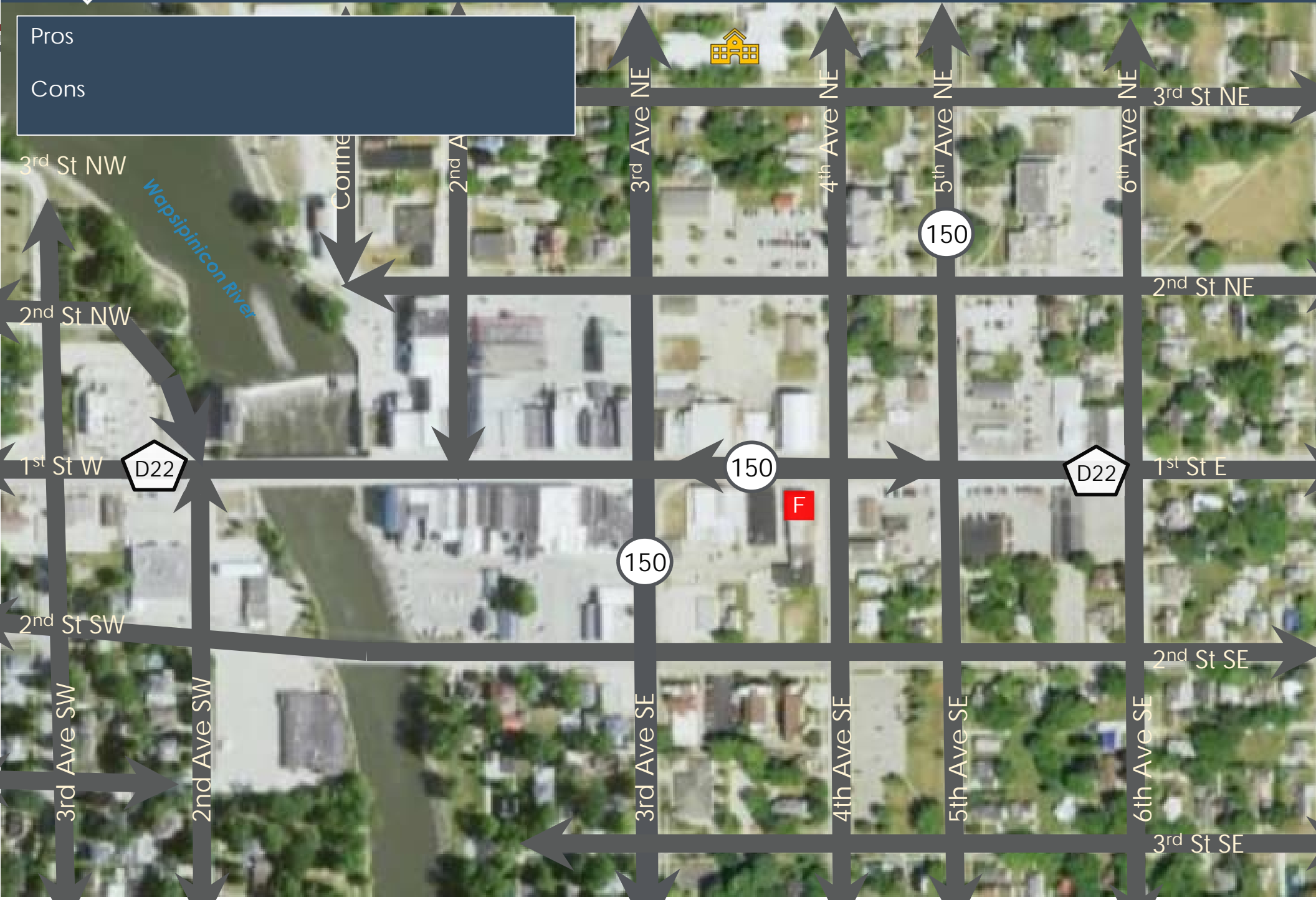
Create a new access point between US 20 and W35



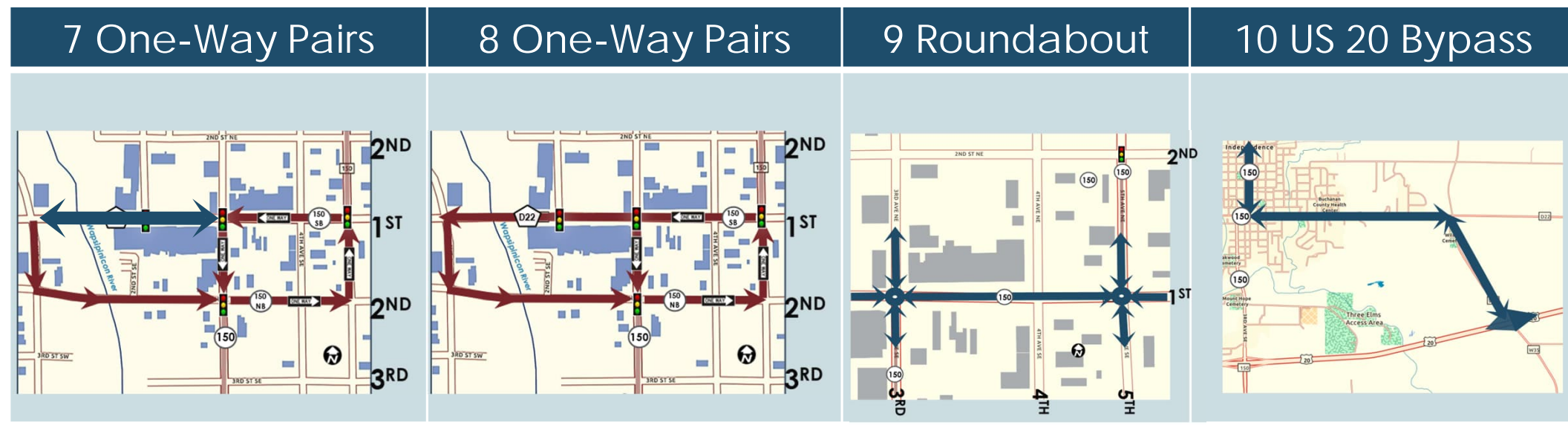
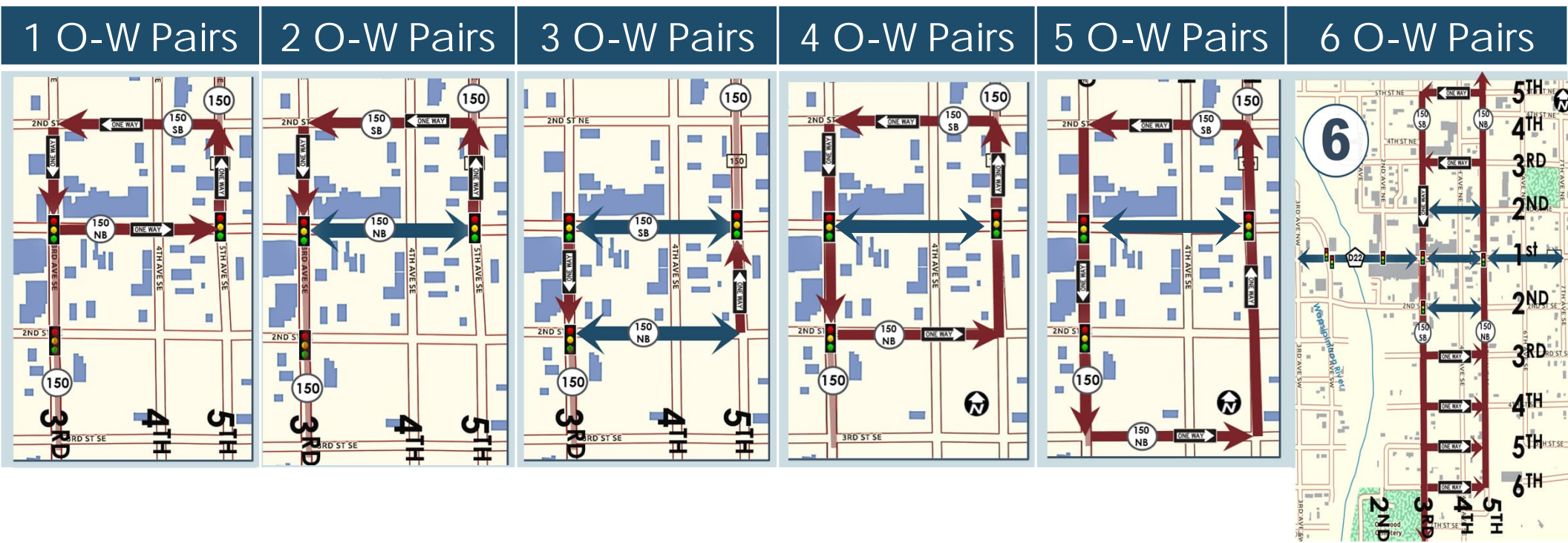
Other Ideas?

Pros

Cons



Summary of Alternatives Considered



LEGEND
 Two-Way Road
 One-Way Road



NEXT STEPS

- Finalize the range of alternatives
- Select maximum of two alternatives to develop in greater detail
- Present to public at an in-person meeting
- Incorporate two Independence alternatives into the Vision Study