Statement of Purpose

The Wisconsin Department of Transportation (WisDOT), on behalf of the Federal Highway Administration (FHWA), is responsible for conducting an environmental review for proposed transportation projects. Transportation projects vary in type, size and complexity, and their potential to affect the environment. Transportation project effects can vary from very minor to significant impacts to the natural and built environment. To account for the variability of project impacts, three basic "classes of action" are allowed for compliance as a part of the National Environmental Policy Act (NEPA) and Wisconsin Environmental Policy Act (WEPA) processes to fulfill requirements of 42 USC 4332, Wis. Stat. 1.12 and Trans 400.

1. An *Environmental Impact Statement (EIS)* is prepared for projects where it is known that the action will have a significant effect on the environment.
2. An *Environmental Assessment (EA)* is prepared for actions in which the significance of the environmental impact is not clearly established.
3. *Categorical Exclusions (CEs)* are issued for actions that do not individually or cumulatively have a significant effect on the environment.

Following an appropriate level of agency review and public involvement to solicit input from all affected public, WisDOT proposes that this project will not have significant environmental impacts, and has prepared an Environmental Assessment to document the NEPA process.

For Environmental Assessment Documents, a Finding of No Significant Impact (FONSI) is issued by FHWA when environmental analysis and interagency review during the EA process find a project to have no significant impacts on the quality of the environment. Significance is determined by context (area and setting of the project) and intensity (degree of impact or effect on a resource). If it is determined that there will be no significant impacts, FHWA will approve the Final EA and issue a FONSI statement to conclude the process and document the decision.

Organization and Content of this Document

WisDOT uses a series of worksheets to investigate, evaluate, and report the environmental effects of proposed transportation actions. The worksheets are comprised of Basic Sheets and Factor Sheets as a framework for preparing the EA. All Basic Sheets must be completed, while Factor Sheets are completed only if the specific resource they address is affected by the project in a way that warrants further discussion, whether negatively or positively.

The environmental document needs to be considered in its entirety. In other words, to completely understand the reasons that one alternative is chosen over another, the entire document must be considered.

The environmental document represents a process of consideration of potential impacts related to potential final design and construction. It is used to help decide the best option for final design and construction that has the least impacts on the environment while considering cost and engineering issues. Only preliminary engineering, or a level of engineering necessary to complete the environmental document, is allowed to occur during the NEPA phase of project development. Final engineering and construction can only occur after an environmental document has been completed.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS

Wisconsin Department of Transportation
DT2094 12/2013

BASIC SHEET 1 – PROJECT SUMMARY

Project ID 1003-10-02 Construction ID 1003-10-79/80	Project Termini IL 75 to County S Cranston Road to WIS 140	Funding Sources *(check all that apply)* ☒ Federal ☒ State ☒ Local
Route Designation *(if applicable)* I-39/90 National Highway System (NHS) Route ☒ Yes ☐ No	Nearest Community City of Beloit and Town of Turtle	Estimated Project Cost and Funding Source (state and/or federal). Year of Expenditure (YOE) dollars include delivery cost. $104,000,000 (2017 - 2018) Real Estate Acquisition Portion of Estimated Cost (YOE) $6,000,000 (2016 – 2017)
Project Title I-39/90 and I-43/WIS 81 Interchange	Section / Township / Range Sections 16,17, 20, 21, 28, 29, 32/T1N/R13E	Utility Relocation Portion of Estimated Cost (YOE) $2,000,000 (2017)
County Rock County		
Bridge Number(s) *(if applicable)* Old – B-53-46/47/48 & 51 New – B-53-300/301/302/303/304/305/306/307/308	Scheduled start date – m/d/yyyy (Operational Planning Meeting (OPM) or Scoping Meeting) 05/02/2012	

Right of Way Acquisition	Acres
Fee	82
TLE	2
PLE	0

Functional Classification of Existing Route (FDM 3-5-2)	Urban	Rural
Freeway/Expressway	☒	☐
Principal Arterial	☐	☐
Minor Arterial	☐	☐
Major Collector		☐
Minor Collector		☐
Collector	☐	
Local	☐	☐
No Functional Class	☐	☐

WisDOT Project Classification (FDM 3-5-2)	
Resurfacing	☐
Pavement Replacement	☐
Reconditioning	☐
Expansion	☒
Bridge Rehabilitation	☐
Bridge Replacement	☐
"Majors" Project (there are both state and federal majors)	☒
SHRM	☐
Reconstruction	☐
Preventive Maintenance	☐
Safety	☐
Other – Describe: Interchange Reconstruction	☒

☐ FHWA Draft Categorical Exclusion (CE), Draft Type 2c/WisDOT Draft Environmental Report (ER).
No significant impacts indicated by initial assessment.

☐ FHWA Final Categorical Exclusion (CE), Type 2c/WisDOT Final Environmental Report (ER). **No significant impacts will occur.**

☒ FHWA Environmental Assessment (EA), Type 3/WisDOT Environmental Assessment (EA). **No significant impacts indicated by initial assessment.**

[signature] 01/07/2015 AECOM PM — [signature] 1/9/2015

(Signature – Company/Organization) (Date – m/d/yy) (Title) (Signature – Director, Bureau of Technical Services) (Date – m/d/yy)

[signature] 1-7-2015 WisDOT Project Manager — [signature] George Poirier 1-20-2015

(Signature – Company/Organization) (Date – m/d/yy) (Title) (Signature) (Date – m/d/yy) (Title)

☒ Region ☐ Aeronautics ☐ Rails & Harbors — ☒ FHWA ☐ FAA ☐ FTA ☐ FRA

After reviewing and addressing substantive public comments, updating the Environmental Assessment (EA) and coordinating with other agencies, it is determined this action:

☐ **Will NOT significantly affect** the quality of the human environment. This document is a Final Categorical Exclusion / Final Environmental Report.

☐ **Will NOT significantly affect** the quality of the human environment. This document is a Finding of No Significant Impact (FONSI).

☐ **Has potential to significantly affect** the quality of the human environment. Draft Environmental Impact Statement (EIS) required.

PREPARER

(Signature – Company/Organization) (Date – m/d/yy) (Title) (Signature – Director, Bureau of Technical Services) (Date – m/d/yy)

(Signature – Company/Organization) (Date – m/d/yy) (Title) (Signature) (Date – m/d/yy) (Title)

☐ Region ☐ Aeronautics ☐ Rails & Harbors — ☐ FHWA ☐ FAA ☐ FTA ☐ FRA

Table of Contents

Listing of Factor Sheets and Appendices/Exhibits

BASIC SHEETS DEFINED

This section of the Environmental Assessment (EA) is called the "Basic Sheets." It contains background information for the study, defines the purpose and need and describes all of the alternatives that were studied to address the purpose and need. This section also provides information on public involvement, environmental factors, a summary of impacts, and other information pertinent to the EA.

Introduction

1) Project History

The proposed project consists of reconstructing the I-39/90 and I-43/WIS 81 interchange. The project area study limits can be seen in Figure 1 below. The I-39/90 and I-43/WIS 81 interchange was originally built in 1960 as an I-90 interchange with WIS 81 to the west and WIS 15 to the east. WIS 15 extended from I-90 just east of Beloit to Milwaukee; and I-90 extended across the United States from Seattle, Washington to Boston, Massachusetts. In the mid 1980's, WIS 15 had its designation changed to I-43. The I-43 interchange configuration itself has remained the same since 1960. As a result, the interchange is nearing the end of its useful life. Capacity on I-39/90 will be increased by one lane in each direction to meet current and future demand, providing a unique opportunity to bring I-43/WIS 81 interchange up to current interstate-to-interstate design standards.

Figure 1 – Project Area Study Limits Map

Planning studies and projects in the corridor include: A corridor study EA/FONSI was completed in 2010 to determine the improvements needed to I-39/90 (project ID 1001-07-00) and an Environmental Assessment (EA) Re-Evaluation under project ID 1001-10-02 was completed in 2014.

2010: Corridor Study

The Wisconsin Department of Transportation (WisDOT) conducted a 45.5 mile corridor study along I-39/90 from the Illinois State Line to Madison from 2004 to 2010. The purpose of the study was to evaluate highway upgrades necessary to meet current design standards, improve safety, accommodate future traffic with an acceptable level of service (LOS), and to replace aging pavements and structures. The study culminated with an approved EA in 2008 and a Finding of No Significant Impact (FONSI) in 2010. The originally-scoped I-43 interchange reconfiguration was addressed with the 2010 EA.

2012: EA Re-Evaluation of 2010 EA/FONSI

In 2012, WisDOT initiated an I-39/90 EA Re-Evaluation of the 2010 EA/FONSI to document the environmental impacts of proposed design changes to the preferred alternative. The re-evaluation included all 45.5 miles of the original 2010 Corridor Study, except for the I-43 and US 12/18 interchanges and the document was approved on October 30, 2014. The Federal Highway Administration (FHWA) and WisDOT have determined a stand-alone National Environmental Policy Act (NEPA) document is appropriate for these two interchanges due to scope changes at these locations. The re-evaluation addressed the addition of a lane in each direction through each interchange and appropriate ramp designs to keep the interim interchanges operable.

2013: EA for I-39/90 and I-43/WIS 81 Interchange (Project ID 1003-10-02)

To ensure the entire corridor analysis and re-evaluation properly considered overall corridor impacts, the original I-43/WIS 81 interchange impacts included in the 2010 EA/FONSI were considered as part of the 2012 EA corridor re-evaluation referenced above. This NEPA document is being developed to reflect the updated scope of the I-39/90 and I-43/WIS 81 interchange reconfiguration and need to enhance local mobility. The scope of this interchange reconfiguration was originally based on the need to accommodate the I-39/90 interstate expansion, to provide higher speed free-flow interstate-to-interstate access, and maintain the existing local access into Beloit. Several of the design features of the preferred alternative from the original EA either do not meet current design standards or are not desirable design features for safety and operational reasons. The original design is also not consistent with the City of Beloit's 2008 Comprehensive Plan to develop regional commercial development in the area adjacent to the I-43 interchange. Therefore, during the preliminary design phase, the interchange scope was broadened as a result of public involvement and coordination with Beloit and Rock County.

As additional alternatives were developed and evaluated with input from the local officials and public, it became apparent the scope and impacts of the revised recommended I-43 interchange design were more extensive than would be appropriate for only a re-evaluation of the original interchange design presented in the original EA. Furthermore, other than adding additional lanes to I-39 through the interchange, all of the other proposed improvements to the I-43 interchange could be implemented independently. It was therefore concluded evaluating alternatives and impacts for upgrading the I-39/I-43/WIS 81 interchange at Beloit would more appropriately addressed with a new separate EA environmental document. This decision was documented on May 22, 2013 in a memo from WisDOT's Environmental Process and Documents (EPDS) Section. The proposed approach was also presented and discussed with environmental resource agencies on May 30, 2013. Each of the resource agencies supported the preparation of a new Environmental Assessment for the work associated with the I-43/WIS 81 interchange.

2) Importance of the Existing Interchange

I-43 is a route of state, regional, and local importance. The route is included in the National Highway System (NHS). This interstate serves and connects Beloit, Milwaukee, and Green Bay. I-43 is identified as a Backbone route by the WisDOT Connections 2030 Transportation Plan and as a Primary Highway in the Glacial Plains Corridor in Connections 2030. This interchange provides an important interstate-to-interstate access to connect major cities in both Wisconsin and Illinois.

The I-39/90 & I-43/WIS 81 interchange is the main entrance to Beloit. Beloit has 37,000 population and the Greater Beloit area has a population of 67,000. The City's land use and transportation system have been established with this interchange as the main entrance. In the interchange's northwest and southwest quadrants, the existing land use includes highway dependent businesses such as truck stops, gas stations, fast-food restaurants, and traveler information stations. In the northwest quadrant there is also a Wal-Mart store. In recent years, Beloit has expanded to east of the interchange with the 450 acre Gateway Business Park in the southeast quadrant.

3) Purpose and Need Summary

The purpose of the proposed I-39/90 and I-43/WIS 81 interchange improvements is to upgrade the interchange to meet current design standards, improve overall safety, accommodate future traffic with an acceptable Level of Service (LOS), replace aging pavements and structures, and enhance local mobility to the city of Beloit. The need for the project includes:

- **Route Importance/System Linkage** – Both I-39/90 and I-43 are WisDOT backbone routes that are part of the NHS. I-39/90 truck traffic is higher compared to other Wisconsin interstate highways. The I-39/90 & I-43/WIS 81 interchange serves as an important connector route in the state of Wisconsin and serves as the primary interstate access to the city of Beloit via WIS 81. Local access from this interchange is important in order to be consistent with local and regional transportation and land use planning objectives and to be compatible with the proposed roadway improvements identified in the City of Beloit's 2008 Comprehensive Plan. The plan includes the desire to develop regional commercial uses near the I-43 interchange. Specifically, the area between I-43 and IL 75 has been identified as an area for future business park development.
- **Traffic Roadway Capacity** – Existing I-39/90 and I-43 were evaluated to determine the interchange's roadway capacity. The results indicate the interchange will operate at LOS F in the design year 2040. Most diverge and merge movements will also operate at LOS F in the design year. Weave movements onto I-39/90 are anticipated to operate at LOS D in the design year.
- **Safety** – There are three weaving movements at the current interchange that have crash rates over 50% higher than the state average for freeway segments.
- **Interchange Deficiencies** – The existing pavements and structures are aging and deteriorated based on 1983/84 pavement and 1959 structures. The interchange configuration is from the original 1960 interchange construction which results in several interchange design deficiencies that do not meet current WisDOT Facilities Development Manual (FDM) standards. These deficiencies include speed ratings on ramps, taper entrance ramps, and ramp superelevations.

4) Proposed Interchange

The project will provide a safe and efficient transportation system at the I-39/90 and I-43/WIS 81 interchange. The project length totals 4.6 miles in the project area. The north-south leg of I-39/90 has a length of approximately 2.7 miles. The east-west leg of WIS 81/Milwaukee Road and I-43 has a length of approximately 1.9 miles. The alignment of I-39/90 will be shifted to the east such that the southbound lanes will be located on the existing location of the northbound lanes. It will also provide improved access to Gateway Business Park and maintains all other access to the Beloit urban area. The new I-39/90 and I-43/WIS 81 interchange will include posted 65 mph free-flow movements from I-43 southbound to I-39/90 southbound and from I-39/90 northbound to I-43 northbound. It will also include posted 55 mph free-flow movements from I-39/90 southbound to I-43 northbound and from I-43 southbound to I-39/90 northbound.

BASIC SHEET 2 – PURPOSE AND NEED

1. Purpose and Need

A. Purpose of Project

The purpose of the proposed I-39/90 and I-43/WIS 81 interchange improvements is to upgrade the interchange to meet current design standards, improve overall safety, accommodate future traffic with an acceptable level of service (LOS), replace aging pavements and structures, and enhance local mobility to the city of Beloit. The project will serve existing and future traffic demands while minimizing disturbance to the natural and built environment. The logical termini for this project extend along I-39/90 from IL-75 south of I-43 to County S and along WIS 81/I-43 from Cranston Road in the city of Beloit to WIS 140 (see **Appendix 1 Project Termini Map**). The anticipated reconstruction limits for this interchange extends north along I-39/90 from the WisDOT Welcome Center south of I-43 to E. Hart Road and east along WIS 81/I-43 from Freeman Parkway in the city of Beloit to County X/Hart Road Interchange (see **Appendix 2 Project Area Study Limits Map**).

B. Project Need

1. Route Importance/System Linkage

I-39/90 is a route of national, state, regional, and local importance. The route is included in the National Highway System (NHS) and is part of Interstate Highway and Defense System that was funded beginning in 1956. I-90 is the longest, most northern, east-to-west interstate highway in the United States. In 1992, I-39 was added to the I-90 designation in Wisconsin from the Illinois State line to eastbound WIS 29 near Wausau. I-39/90 is identified as a Backbone route by WisDOT's Corridors 2030 Transportation Plan (see **Appendix 3 Corridors 2030 Transportation Plan**) and as a Primary Highway in the South Central Connection Corridor in Connections 2030.

The I-39/90 corridor is a federal truck route, with about 35 percent of its total traffic volume consisting of heavy trucks. The truck route designation increases the importance of the route to operate safely and efficiently. The high volume of trucks compared to other interstate segments signifies the importance of the route in movement of goods throughout the state. Table 1-1 lists several segments of interstate highways in Wisconsin with their corresponding truck percentages.

Table 1-1: Wisconsin Interstate Highway Truck Percentage

Year	Site Code	County	Interstate Highway	Truck %	AADT
2010	530275	Rock	I-39/90 N. of County S La Prairie Township	35	45,700
2009	491126	Portage	I-39/USH 51 between Casimir Road and BUS USH 51	20	22,900
2010	670101	Waukesha	I-94 West of WIS 67 - Oconomowoc Lake	20	42,300
2010	510001	Racine	I-94 - 1.5 miles S. of Milwaukee County - Kilbournville	18	87,200
2010	450239	Ozaukee	I-43 - 0.9 miles N. of WIS 84 - Port Washington	14	24,900

I-43 is currently a route of state, regional, and local importance and it is included in the NHS. This interstate serves and connects Beloit, Milwaukee, and Green Bay. I-43 is identified as a Backbone route by the WisDOT Corridors 2030 Transportation Plan (**Appendix 3**) and as a Primary Highway in the Glacial Plains Corridor in Connections 2030.

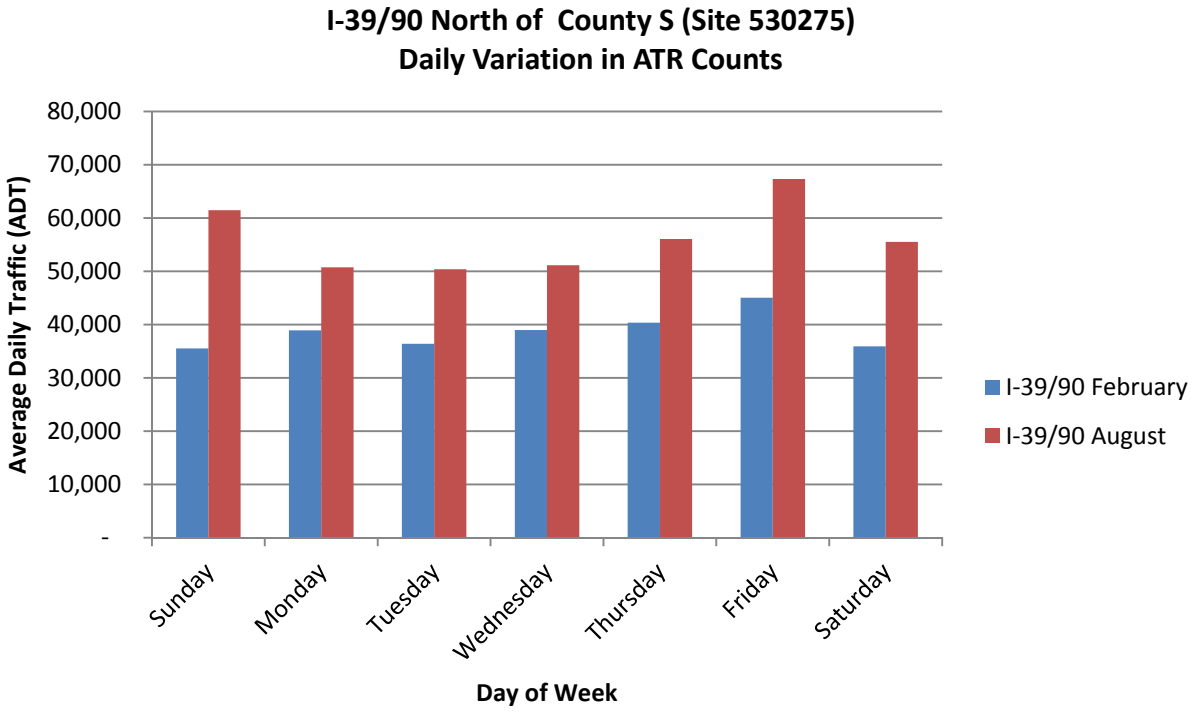
The I-39/90 and I-43/WIS 81 interchange is currently a full cloverleaf configuration that operates as a system interchange between two high volume interstate highways, I-39/90 and I-43. This interchange serves as an important state, regional and local commuter route connector. Substantial traffic generators use the I-43 interchange that includes recreational, commercial, and industrial facilities in the Beloit, Janesville, and Madison areas.

The I-39/90 and I-43/WIS 81 interchange serves as the primary interstate access to the city of Beloit via WIS 81. There are several other local access roads from the east into the city of Beloit. **Appendix 4** shows the local access into the city of Beloit. Local access from this interchange is important in order to be consistent with local and regional transportation and land use planning objectives and to be compatible with the proposed roadway improvements identified in the city of Beloit's 2008 Comprehensive Plan. The plan includes the desire to develop regional commercial uses near the I-43 interchange. Specifically, the area between I-43 and IL 75 has been identified as an area for future business park development.

2. Traffic and Roadway Capacity

The primary deficiency at this interchange is that the two heaviest traffic volumes, northbound I-39/90 to northbound I-43 and southbound I-43 to southbound I-39/90, are served by single lane, low speed ramps that do not provide sufficient capacity for the traffic volumes. The existing traffic volumes (2013) are continually monitored along I-39/90 by an automatic traffic recorder (ATR) site 530275 just north of the I-39/90 and I-43/WIS 81 interchange. The volume of traffic on this rural segment of I-39/90 fluctuates by both month and day as shown on Graph 1-1. The graph shows that summer months (August) and weekends have higher traffic volumes. This variance in traffic reflects the importance of the I-39/90 corridor to summer tourism travel from Illinois to Wisconsin.

Graph 1-1
2013 I-39/90 and I-43 Daily Variations in Traffic

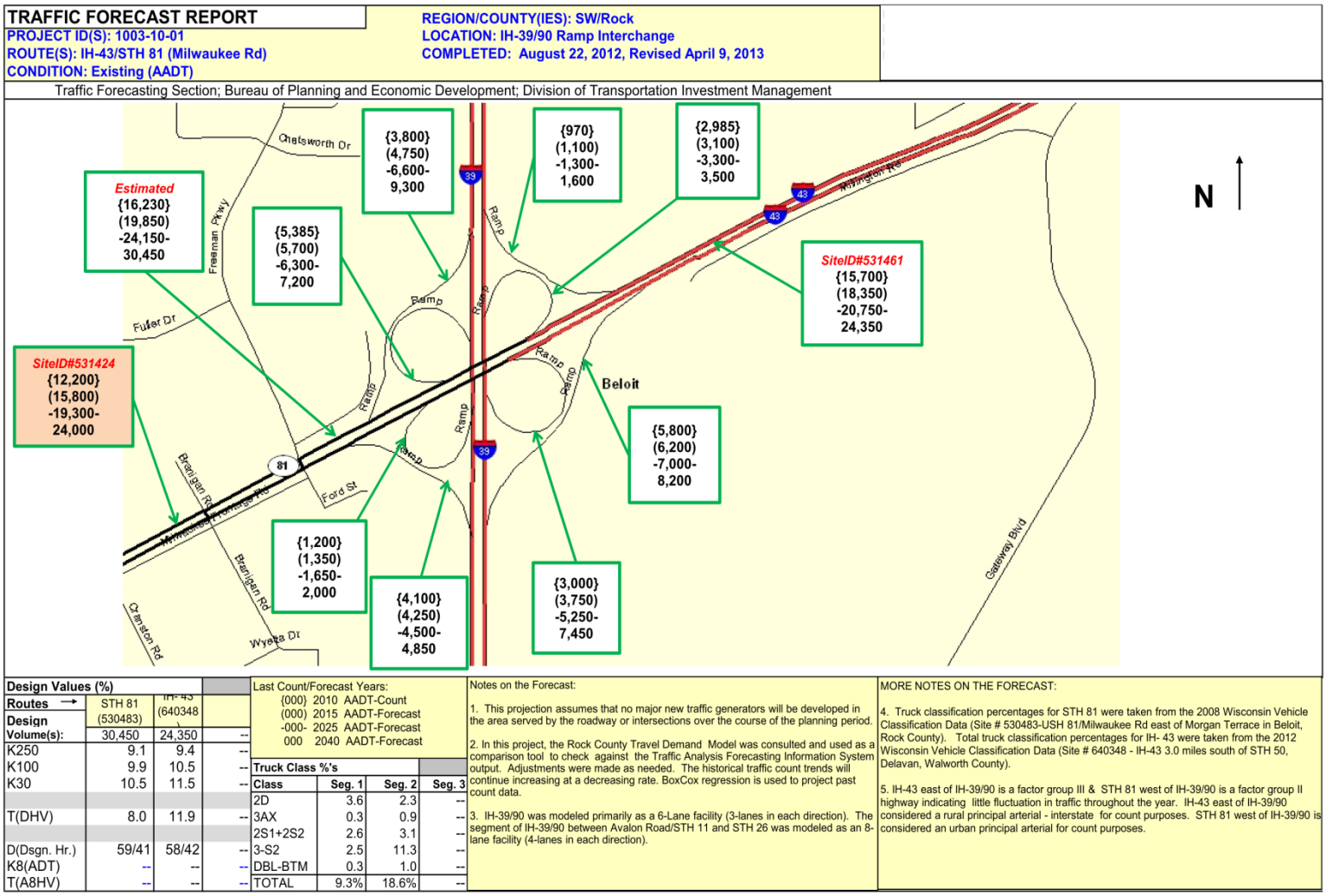


Source: Wisconsin Hourly Traffic Data Access Portal, Automatic Traffic Recorder (ATR) Station 530275

3. Traffic Analysis

WisDOT central office traffic forecasting unit provided traffic projections for the I-39/90 & I-43/WIS 81 interchange based on turning movement counts taken in April 2012, coverage counts from 2010, and the Rock County Travel Demand Model. Future Average Daily Traffic (ADT) volumes were developed for I-39/90 & I-43/WIS 81 interchange ramps, I-39/90, I-43, and WIS 81 for 2015, 2025, and the design year 2040. Figure 1-1 is the WisDOT Traffic Forecast that was provided for the existing I-39/90 & I-43/WIS 81 Interchange. Forecasted turning movement volumes at the I-39/90 & I-43/WIS 81 interchange were developed for the AM and PM peak hours and the ADT for the years 2015, 2025, and 2040. WisDOT traffic forecast information can be found in **Appendix 21**.

Figure 1-1
I-39/90 and I-43/WIS 81 Traffic Forecast



These projections take into account anticipated land use changes and estimated travel patterns. Highways are typically designed for 20 years after construction and, given the anticipated construction between 2016 and 2020, forecast updates for 2040 are desirable. Graph 1-2 details how traffic volumes are projected to increase from 2010 to design year 2040 along the I-39/90 and I-43 mainlines.

Traffic on I-39/90 north of the I-43 interchange between 2010 and the design year 2040 is anticipated to increase 81 percent and traffic on I-39/90 south of the I-43 interchange during this same time period is anticipated to increase 54 percent. Traffic on I-43 east of the interchange is anticipated to increase 55 percent between 2010 and 2040. Heavy trucks make up about 35 percent of the number of vehicles that pass a given location on an average day of the year (Average Annual Daily Traffic (AADT)) on I-39/90 and 19 percent of the AADT on I-43.

Graph 1-2
AADT during 2010 and Forecasted Design Year (2040)

I-39/90 North of I-43 Interchange (Site 530103)
I-39/90 South of I-43 Interchange (Site 530335)
East of I-43 Interchange (Site 531461)

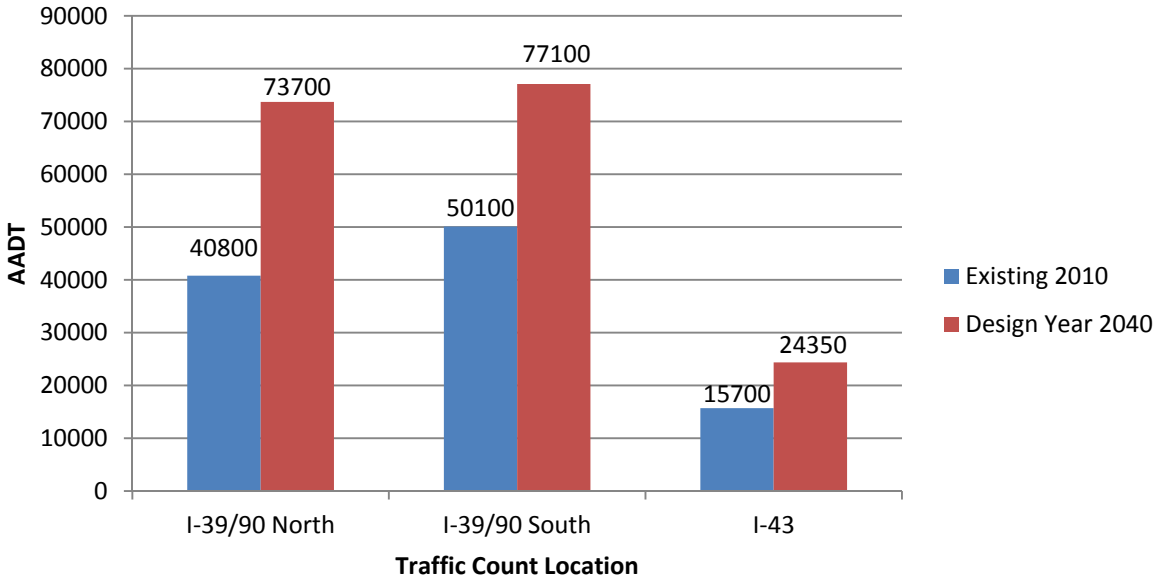


Table 1-2 summarizes the AADT and the design hour volumes for the I-39/90 and I-43/WIS 81 interchange ramps in 2010 and design year 2040. The design hourly volume is recommended by the American Association of State Highway and Transportation Officials (AASHTO) as the 30th highest hourly volume of the year (K30).

Table 1-2: I-39/90 & I-43/WIS 81 Ramp Volumes
AADT and K30 Values for 2010 and Design Year 2040

I-39/90 & I-43/WIS 81 Ramp	Type of Ramp	2010 AADT	2040 AADT	2010 K30 (vph)
NB Off-Ramp to NB I-43	Directional	5,800	8,200	665
NB On-Ramp from NB WIS 81	Loop	3,000	7,450	345
NB Off-Ramp to SB WIS 81	Loop	2,985	3,500	345
NB On-Ramp from SB I-43	Directional	970	1,600	110
SB Off-Ramp to SB WIS 81	Directional	3,800	9,300	435
SB On-Ramp from SB I-43	Loop	5,385	7,200	620
SB Off-Ramp to NB I-43	Loop	1,200	2,000	140
SB On-Ramp from NB WIS 81	Directional	4,100	4,850	470

VPH-vehicles per hour

A traffic operational analysis was completed to determine 2010 and design year 2040 levels of service for the I-39/90 mainline, I-43 mainline, and I-43/WIS 81 interchange. Level of service (LOS) is a measure of the highway's operations and response to traffic demands. Table 1-3 describes each LOS and Figure 1-2 illustrates traffic conditions associated with each LOS for a multilane divided facility. LOS designations range from A to F. LOS C indicates that the roadway is operating at or near the free-flow speed and minor incidents can be absorbed without traffic backups. LOS D indicates that the roadway is operating slightly below the free-flow speed, but minor incidents will cause traffic backups. LOS E indicates that the roadway is operating at capacity; the traffic stream offers no usable gaps to maneuver; and any incident will cause extensive traffic backups. LOS F describes breakdowns in traffic flow, and any maneuver, such as merging, weaving, or lane drop, results in traffic backing up. It is desirable that a facility operates at LOS C or better in the design year.

TABLE 1-3 LEVEL OF SERVICES DESCRIPTIONS	
LOS A	Drivers virtually unaffected by others High level of freedom to select speed and maneuver Excellent level of driver comfort and convenience
LOS B	Drivers aware of use by others Slight restriction in speed and maneuvering Good level of driver comfort and convenience
LOS C	Driver operation significantly affected by others Moderate restriction in speed and maneuvering Fair level of comfort and convenience
LOS D	Driver operation completely affected by others Severe restriction in speed and maneuvering Poor level of driver comfort and convenience
LOS E	Slow speeds and traffic backups; some stoppage Total restriction in vehicle maneuvering High driver frustration
LOS F	Stop and go movements with long backups and delay Forced vehicle maneuvers Maximum driver frustration

Figure 1-2
Level of Service Characteristics

Freeway segments, merge, diverge and weave areas for the I-39/90 and I-43/WIS 81 interchange can be seen in Figure 1-3. Table 1-4 summarizes the 2010 and forecasted design year 2040 Level of Service (LOS) for the I-39/90 segments. Operations were analyzed separately for both northbound and southbound on I-39/90. After evaluating 2010 and projected design year 2040 traffic volumes the anticipated LOS is not desirable. All segments on I-39/90 in 2010 operate at a LOS C; compared to 2040 in which they are anticipated to operate at a LOS F. Table 1-5 summarizes the operations for the unacceptable merge, diverge, and weave operations at the existing I-39/90 and I-43/WIS 81 interchange ramp junctions.

Figure 1-3
I-39/90 and I-43/WIS 81 Merge, Diverge, and Weave Areas

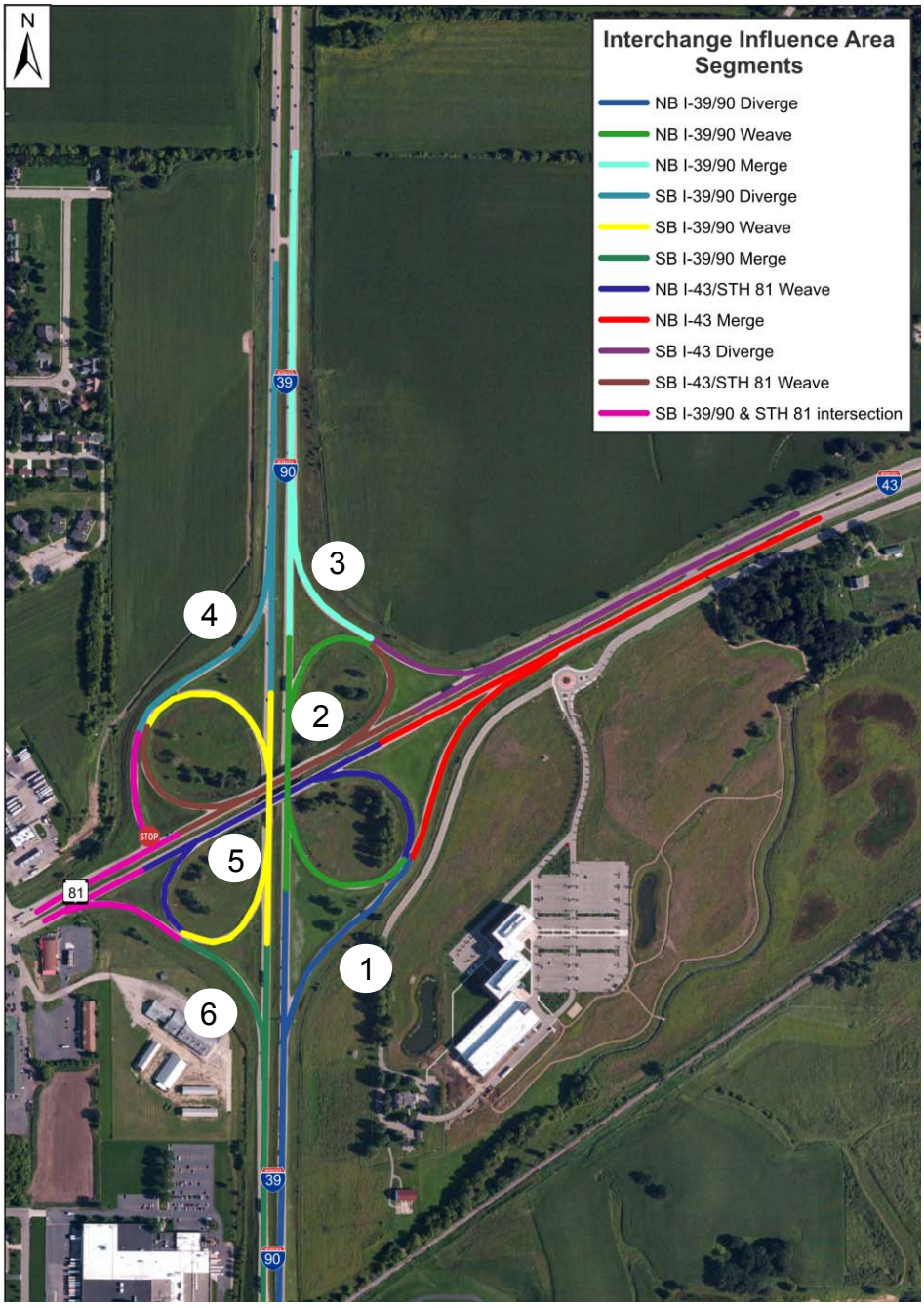


Table 1-4: Freeway Operational Analysis
K30 Volumes Existing Year 2010 and Design Year 2040

I-39/90 Segment	Year 2010 K30 Existing		Year 2040 K30 No Build	
	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
Illinois State Line to I-43/WIS 81 - NB	C	24	**F**	51
Illinois State Line to I-43/WIS 81 - SB	C	24	**F**	51
I-43/WIS 81 to County S - NB	C	19	**F**	45
I-43/WIS 81 to County S - SB	C	19	**F**	45

Pc/mi/ln – Passenger Cars/Mile/Lane

Table 1-5: I-39/90 Ramp Junction Operational Analysis
K30 Volumes for 2010 and Design Year 2040

Ramp Movement	Figure 1-3 Color Reference	Analysis Type	Year 2010 K30		Year 2040 K30	
			Existing		No Build	
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)
NB Off-Ramp to NB I-43	1	Diverge	C	27	**F**	42
Between NB Loop Ramps on I-39	2	Weave	B	16	**D**	31
NB On-Ramp from SB I-43	3	Merge	C	23	**F**	40
SB Off-Ramp to SB WIS 81	4	Diverge	C	22	**F**	40
Between SB Loop Ramps on I-39	5	Weave	B	16	**D**	28
SB On-Ramp from NB WIS 81	6	Merge	C	27	**F**	40

According to WisDOT's Facilities Development Manual (FDM) indicates that Connections 2030 backbone routes and interstates must achieve LOS 'C' or better to be considered acceptable. This would include the merge, diverge, and weaving traffic associated with both I-39/90 and I-43. Based on the analysis of the I-39/90 and I-43/WIS 81 interchange, both the diverge and merge ramp movements in Table 1-5 operate at LOS C in 2010. In the design year 2040 they are anticipated to operate at LOS F. The weave movements between ramps operate at LOS B in 2010 and operate at LOS D in the design year 2040. This interchange does not meet the desirable LOS C for the ramp movements listed in Table 1-5 in the design year 2040.

As depicted in Tables 1-4 and 1-5, it is necessary to increase the capacity of the I-39/90 and I-43/WIS 81 interchange to meet the anticipated 2040 traffic demands. The current cloverleaf design also does not have the capability needed to operate near the free-flow speed along the interstates.

4. Safety

A 5-year crash analysis from 2008 – 2012 was completed at the I-39/90 and I-43/WIS 81 system interchange. Table 1-6 below summarizes the segment crash rates and severity for each of the segments in the interchange influence area. Along I-39/90, the influence area was extended 1,500 feet from the beginning of the entrance ramp or exit ramp at both the on-ramps and off-ramps. Likewise, along I-43, the influence area was extended 1,500 feet from the beginning of the entrance ramp or exit ramp at both the on-ramps and off-ramps east of the interchange.

Crash rates were calculated as crashes per hundred million vehicle miles traveled (HMVMT). Segment crash rates were compared to the statewide average and segments that exceeded the statewide average are highlighted on Table 1-6. The overall I-39/90 & I-43/WIS 81 influence area had a total of 110 crashes over the five year crash analysis period. 33% of these crashes resulted in personal injury, 9% of them being high severity crashes (Type A crashes).

Three weaving areas at the interchange had higher crash rates than the state average. The SB I-39/90 weave has a crash rate is more than twice the amount of the statewide 5-year average crash rate. The weaving sections are located between the on-ramps and off-ramps. These areas have a high amount of merging and diverging vehicles which creates more opportunities for crashes. These crashes may be due to the insufficient length for safe lane changes. There is inadequate spacing from a safety perspective between the loop ramps for vehicles to properly merge/diverge at this interchange.

Table 1-6: I-39/90 & I-43/WIS 81 Interchange
Crash Rate
Years 2008 – 2012

Segment	Total Crashes	Segment Length (miles)	5-year Avg Segment Crash Rate[1]	Statewide 5-year Avg Crash Rate[2]	PDO[3]	Injury Crashes			
						C[4]	B[5]	A[6]	Fatal
NB I-39/90 Diverge	11	0.43	28	73	5	1	3	2	0
NB I-39/90 Weave	23	0.23	116	73	15	4	3	1	0
NB I-39/90 Merge	8	0.43	25	73	6	1	1	0	0
SB I-39/90 Diverge	8	0.39	28	73	7	0	1	0	0
SB I-39/90 Weave	36	0.23	202	73	27	3	2	4	0
SB I-39/90 Merge	5	0.39	14	73	3	2	0	0	0
NB I-43/WIS 81 Weave	7	0.24	124	73	4	0	1	2	0
NB I-43/WIS 81 Merge	6	0.45	47	73	5	1	0	0	0
SB I-43/WIS 81 Diverge	3	0.38	28	73	1	0	2	0	0
SB I-43/WIS 81 Weave	3	0.24	39	73	1	0	1	1	0
Totals	**110**	**-**	**-**	**-**	**74**	**12**	**14**	**10**	**0**

1. Crash Rate Calculation = (100,000,000 x # of Crashes) / (Time frame of the analysis (years) x Annual Average Daily Traffic x Segment Length (miles) x 365)
2. 2008-2012 five-year statewide average crash rate for Peer Group 7 – Large Urban Freeway
3. PDO – Property Damage Only
4. Type C – Possibly Injury
5. Type B – Non-incapacitating injury
6. Type A – Incapacitating injury

5. Interchange Deficiencies

The I-39/90 and I-43/WIS 81 interchange pavements and structures are aging and deteriorated. The original interchange was constructed in 1960. The I-39/90 pavement was replaced in 1983 and 1984 and required resurfacing in 2004. The 1983/1984 pavement structure has 31 years of service and will require continued maintenance since it is beyond its planned service life of 20 years. The original bridge structures B-53-46/47/48/51 (see **Appendix 7**) in the project area were constructed in 1959. All shoulder widths on the bridges do not meet the current 12-foot WisDOT standard.

The I-39/90 and I-43/WIS 81 interchange configuration was based on 1960 design. Since that time, design standards have been updated continually to allow facilities such as the interstate to operate more efficiently and safely. **Appendix 5** identifies the existing geometric deficiencies and Table 1-7 summarizes the geometric deficiencies at the I-39/90 and I-43/WIS 81 interchange.

The current ramp geometrics do not meet current WisDOT Facilities Development Manual (FDM) standards for an interstate. The four existing loop ramps have a design speed of 30-35 mph. The FDM states freeway to freeway directional ramps need to be within 10 mph of mainline highway design speed for 60 mph and greater. I-39/90 mainline has a design speed of 70 mph. I-43 has a design speed of 60 mph northbound and 50 mph southbound through the interchange.

The I-39/90 and I-43/WIS 81 interchange was originally designed with a maximum horizontal curve superelevation rate of eight percent. Superelevation is defined as the vertical distance between the heights of the inner and outer edges of highway pavement. Superelevation is created by rotating the pavement on the approach to and through a horizontal curve. It is intended to assist the driver through a curve in such a way that the driver will not need to reduce their travel speed. The superelevation is dependent on speed at which a vehicle travels and the radius of the horizontal curve. Current FDM design standards require no more than six percent superelevation. Each loop ramp currently exceeds this standard.

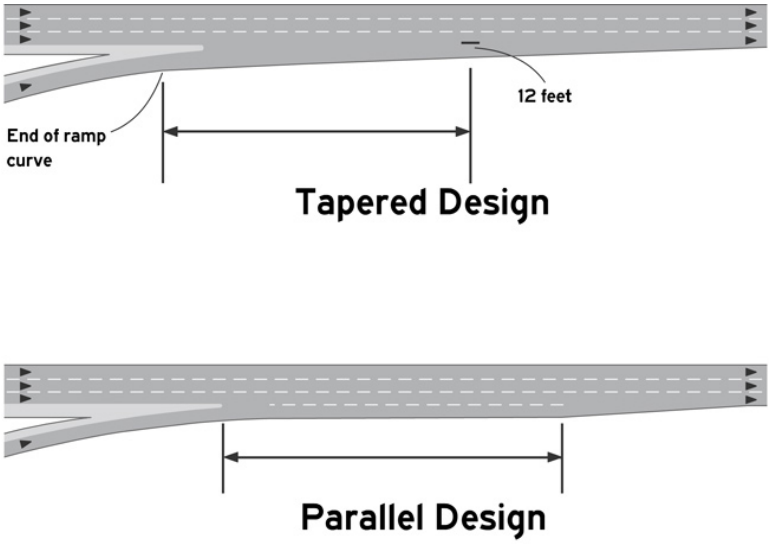
Table 1-7: I-39/90 & I-43/WIS 81 Interchange
Geometric Deficiencies

Deficiencies		From	To	Current WisDOT FDM Design Standard
1	Ramp is Speed Rated for 35 mph*	Eastbound WIS 81	Southbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
2	Ramp is Speed Rated for 30 mph*	Southbound I-39/90	Northbound I-43	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 50 mph
3	Ramp is Speed Rated for 30 mph*	Southbound I-43	Southbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
4	Ramp is Speed Rated for 35 mph*	Southbound I-43	Northbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
5	Ramp is Speed Rated for 45 mph*	Northbound I-39/90	Northbound I-43	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 50 mph
6	Ramp is Speed Rated for 30 mph*	Eastbound WIS 81	Northbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
7	Taper Entrance Ramp	Eastbound WIS 81	Southbound I-39/90	Parallel Entrance Ramp
8	Taper Entrance Ramp	Northbound I-39/90	Northbound I-43	Parallel Entrance Ramp
9	Taper Entrance Ramp	Southbound I-43	Northbound I-39/90	Parallel Entrance Ramp
10	Ramp Superelevations	All Ramps	All Ramps	Superelevation must be less than or equal to 6 percent

*Based on 6% superelevation table

Since the 1960s, entrance ramp design standards have changed considerably to provide safer merging movements. Parallel entrance ramps are now required by WisDOT for any reconstruction or new construction project. The current interchange does not provide parallel entrance ramps on I-39/90 or I-43. See Figure 1-5 for comparison of a parallel entrance ramp versus tapered entrance ramp.

Figure 1-5: Tapered Entrance Ramp vs Parallel Entrance Ramp



Source: **http://www.mireinfo.org/DataElements/188.cfm**

2. Summary of Alternatives

The scoping stage of this project was completed in three screenings. At the end of each screening, alternatives were presented to the public for comment. Table 2-1 schematically summarizes the project's alternative development process.

TABLE 2-1
ALTERNATIVE DEVELOPMENT PROCESS SCHEMATIC

INITIAL ALTERNATIVES	Screening 1[1]	PRELIMINARY ALTERNATIVES DEVELOPMENT	Screening 2[2]	DETAILED STUDY ALTERNATIVES DEVELOPMENT	Screening 3[3]	PREFERRED ALTERNATIVE
No Build Alternative →		No Build Alternative →		No-Build Alternative → ●		
Original EA Preferred Alternative → ●						
Build Alternatives						
Alternative 1 →						
		Option A → ●				
		Option B → ●				
Alternative 2 →						
		Option A →		Option A → ●		
				Option A Modified →		Preferred Alternative
		Option B → ●				
Alternative 3 →						
		Option B → ●				
CONTINUED TO NEXT STAGE →						
ELIMINATED FROM FUTURE CONSIDERATION → ●						

1 Initial Alternatives shown to the public on August 28, 2012 (Public Involvement meeting (PIM #1)
2 Preliminary Alternatives shown to the public on December 10, 2013 (PIM #2)
3 Preferred Alternative shown to the public on August 5, 2014 (PIM #3)

A. Preliminary Alternatives

Five alternatives were evaluated during the initial/preliminary alternative stage. These alternatives include the original EA preferred alternative, the No-Build Alternative, and three build alternatives. Both the original EA preferred alternative and the No-Build Alternative do not meet the project's purpose and need because they did not address the current interchange deficiencies. Therefore, they were both dropped from further consideration. However, the no build alternative was carried through until the preferred alternative selection to compare impacts between the preferred alternative and the alternative not to construct the interchange (no-build alternative).

All of the build alternatives meet the project's purpose and need. The design speed for each of the build alternatives is up to 70 miles per hour (mph). The free flow movements of I-43 southbound to I-39/90 southbound and I-39/90 northbound to I-43 northbound are designed for 70 mph. The other two free flow movements are designed for 60 mph. For each of the three build alternatives, two options were developed. Option A included relocating the I-39/90 mainline approximately 300 feet to the east (alternate alignment) in an effort to both minimize overall community impacts and construction costs to construct a two-level interchange. Option B maintained the location of I-39 through the interchange (base alignment) which resulted in developing interchange alternatives with three tier roadways.

A Location Study Report was completed that details the preliminary alternatives and reasoning for the selection of the preferred alternative. Figures and discussion of the alternatives dismissed and selection of the preferred alternative can be found in **Appendix 8**. The alternatives include Alternative 1A, Alternative 1B, Alternative 2B, Alternative 3B, and the Original EA Alternative. Table 1 in Appendix 8 summarizes and compares the impacts of each preliminary alternative. During the preliminary alternative phase, Alternative 3B was dropped from further discussion due to its high construction costs compared to the others. Alternatives 1A and 1B were dropped from further consideration due to public input and their less than desirable local access configurations.

Alternative 2B is the same as Alternative 2A except I-39/90 would remain on its current alignment. This would result in decreased construction complexity but would require a three tier interchange. Alternative 2B was dropped from further consideration because of its high costs compared to Alternative 2A at that time.

B. Detailed Study Alternatives

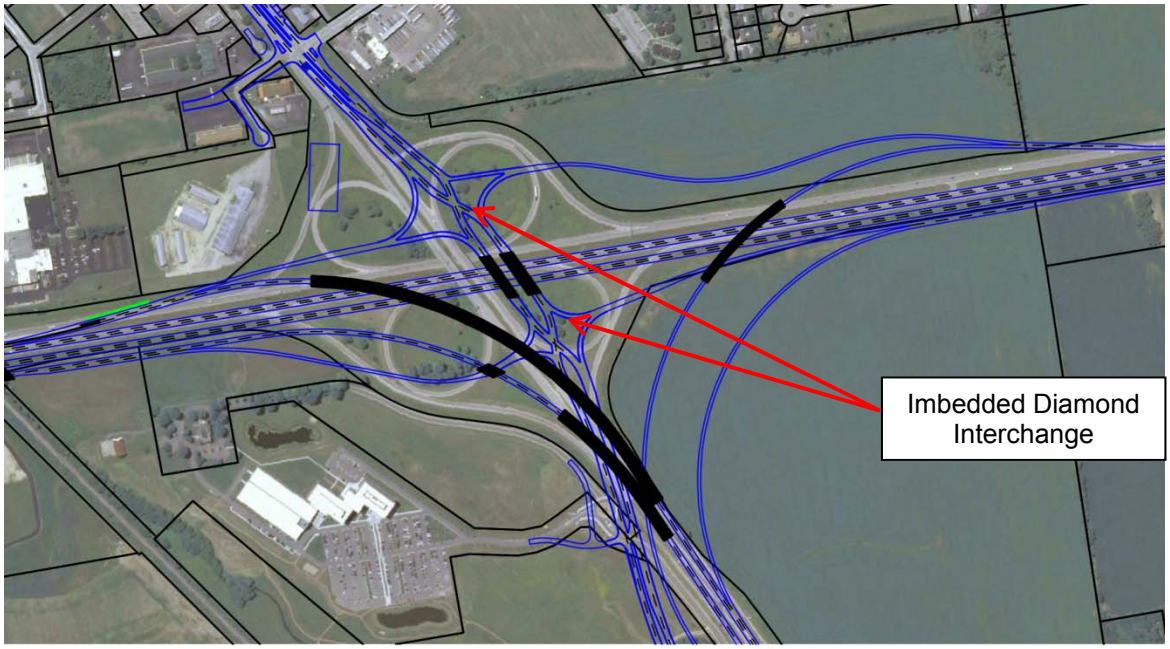
No Build Alternative –

The No-build Alternative was evaluated as a baseline comparison. The No-build Alternative would leave the existing deficient I-43 configuration the same with the exception that it would add an additional lane along I-39/90 in both directions. The addition of the northbound and southbound lanes along I-39/90 is part of the I-39/90 expansion project (2012 EA Re-evaluation) from the Illinois State Line to Madison.

The geometry of the existing I-39/90 & I-43/WIS 81 interchange (see **Appendix 5**) does not meet current highway design standards and the traffic operations along the ramps would be below LOS C in the design year 2040. At the interchange, the additional lanes would need to be accommodated in the existing median to avoid/minimize impacts to the existing interchange and ramps. This would result in a narrow median and substandard inside shoulder widths.

Alternative 2 –

Alternative 2 would involve a full reconstruction of the I-43/WIS 81 interchange. The following improvements would be made:

- High design speed ramps - up to 70 mph
- Access modifications:
  - Existing cloverleaf configuration will be re-designed as a free-flow system interchange with an imbedded diamond interchange (see below) providing access to WIS 81/Milwaukee Road.
  - 

  - Extend eastbound WIS 81/Milwaukee Road from its current location in Beloit to connect with County X and Hart Road.
    - Moves local Beloit access from I-43 to the County X/Hart Road interchange.
  - Four new intersections along WIS 81/Milwaukee Road extension.
    - Two will be the on and off ramps for I-39/90.
    - Two will be for the Kerry Corporation driveway and Gateway Boulevard.

I. Option A – Relocate I-39/90 Eastward

See **Appendix 6 (Sheet 1 of 2)** for a map of Alternative 2, Option A. This alternative option has a high level staging complexity for construction since mainline construction of I-39/90 will occur off alignment and require complex staging of temporary ramps.

Alternative 2, Option A includes the following:

- Relocating the I-39/90 mainline approximately 300 feet to the east in the interchange area and adding closely spaced reverse curves to the mainline alignment.
- Two tier interchange.
- All movements along I-39/90, I-43, and WIS 81/Milwaukee Road would be changed and upgraded to meet current design standards.
- Maintains existing local road and interstate access.

This alternative option provides improved access to Gateway Business Park, while maintaining the local access into the city of Beloit and providing high-speed free flow ramps for the interstate-to-interstate connections. By improving the access to the Gateway Boulevard area, it enhances the ability for the city of Beloit to expand and provide for the planned future growth of the community east of the I-39/90 & I-43/WIS 81 interchange.

II. Option A Modified - I-39/90 Minor Shift Eastward

See **Appendix 6 (Sheet 2 of 2)** for a map of Alternative 2, Option A Modified. This alternative option has a medium level staging complexity since mainline construction of I-39/90 at the interchange can follow a similar staging strategy of the corridor.

Option A Modified is the same as Option A except for the following significant items described below:

- The alignment of I-39/90 will be shifted so that the SB lanes will be located on the existing location of the NB lanes. This will allow for less complex construction staging.
- The alignment of the extended WIS 81/Milwaukee Road will be shifted north of the existing crossing of I-39/90. This will allow for less complex construction staging and contribute to the need of less overall right-of-way.
- The median of I-39/90 will be widened to 34 feet to account for the potential of wider hammerhead pier columns.
- The I-39/90 alignment will return to the existing location via two normal crown curves just south of Hart Road.

This alternative option provides improved access to the Gateway Business Park area and maintains all other access at the system/service interchange. It also allows I-39/90 to remain closer to the existing alignment, reducing right-of-way impacts and making construction staging easier than Option A.

C. Preferred Alternative Selection – Alternative 2 Option A Modified

Alternative 2A Modified was selected as the preferred alternative because it received strong public support and provided desirable local mobility while minimizing costs and environmental impacts compared to the other detailed study alternatives at that time.

Both Option A and Option A Modified meet the purpose and need and were included in the Interstate Access Justification Report (IAJR) that was sent to FHWA Washington. There are several differences between the two build alternatives. In an effort to improve design features from Option A and reduce right of way impacts, Option A modified was created. Option A is $5 million more than Option A Modified. Option A Modified has 18 less acres of total right of way impact and 5 less acres of farmland right of way impact versus Option A. Also, Option A Modified allows for better construction staging than Option A, which will result in fewer impacts to the community during construction. The only advantage Option A has over Option A Modified is it results in no wetland impacts. The wetland impacts for Option A Modified result in 0.6 acres of wetland impacts.

The public and local officials prefer Alternative 2. Since Alternative 2, Option A Modified has less right of way impacts and better construction staging versus Alternative 2 Option A, the preferred detailed alternative is Alternative 2, Option A Modified (see **Appendix 7 Preferred Alternative)**.

Since the selection of the preferred alternative, further design refinement has been completed which changed some of the environmental and socioeconomic impacts. The right of way impacts have increased from 70 acres to 82 acres. The total cost has increased from $101 million to $112 million. The total area required from farm operations has

increased from 48.6 acres to 56 acres. The preferred alternative provides for better construction staging and the least total right of way impacts versus Alternative 2 Option A.

3. Description of Proposed Action

The proposed project consists of reconstructing the I-39/90 and I-43/WIS 81 interchange. The project length totals 4.6 miles in the project area. The north-south leg of I-39/90 has a length of approximately 2.7 miles. The east-west leg of WIS 81/Milwaukee Road and I-43 has a length of approximately 1.9 miles. The project study limits for this project extend along I-39/90 from the WisDOT Welcome Center south of I-43 to E. Hart Road and along I-43/WIS 81 from Freeman Parkway in the city of Beloit to the County X/Hart Road Interchange (see **Appendix 2**).

The new I-39/90 and I-43/WIS 81 interchange will include 70 mph (design speed) free flow movements from southbound I-43 to southbound I-39/90 and from northbound I-39/90 to northbound I-43. It will also include 60 mph (design speed) free flow movements from southbound I-39/90 to northbound I-43 and from southbound I-43 to northbound I-39/90. These movements will play an important role in improving the system linkage between the two WisDOT backbone routes.

The preferred alternative will enhance the community's local mobility by extending WIS 81/Milwaukee Road from Beloit to the I-43/County X/Hart Road interchange. This extension will provide improved vehicle access from the city of Beloit to the Gateway Business Park and will accommodate both bicycle and pedestrian traffic.

The new interchange will be constructed with current design standards thus improving the overall safety from the existing geometric deficiencies. The interchange will remain open to traffic throughout the duration of construction; with the exception of temporary lane closures during transition between the various construction stages. Local access will be provided during construction as there will be no designated detour route for this project. However, for the I-39 reconstruction project from the Illinois State Line to Madison, there is a designated alternate route for motorists to choose to utilize during construction. See **Appendix 9** for the Alternate Route Map.

4. Construction and Operational Energy Requirements

Energy consumption related to highway projects pertains to construction and operation. Construction energy is that required in raw materials and equipment to build or maintain the highway. Operational energy is the direct consumption of fuel by vehicles using the roadway. Fuel usage is affected by types of vehicles, roadway grades, and the geometric characteristics, speed, congestion and queuing caused by high traffic volume and intersection stop conditions.

Although construction energy is greater for the preferred alternative when compared to the no-build alternative, exertion of this energy now is necessary to reduce the need for more intense repairs in the future. If the structural, pavement and intersection repairs are not completed, these elements will continue to deteriorate and larger scale improvements that require more construction energy will be necessary in the future.

5. Land Use

Beginning at the south end of the project by the WisDOT Welcome Center on I-39/90 in the city of Beloit, land use immediately adjacent to the I-39/90 and I-43/WIS 81 interchange is a mix of agricultural, institutional and community services, business park, industrial, residential, and commericial. See **Appendix 10** for an existing and future land use maps for the city of Beloit and the town of Turtle.

6. Planning and Zoning

The improvement of I-39/90 and I-43/WIS 81 interchange is a necesssary part of the I-39/90 mainline improvement project. The I-39/90 project is listed in the Rock County Comprehenisve Plan 2035 and mentioned under the discussion of the State Highway Plan 2020. It lists the improvement of I-39/90 and the reconstruction of all interchanges within that project. The city of Beloit Comprehensive Plan notes the reconfiguration of the I-39/90 and I-43/WIS 81 interchange. The two plans are listed:

- City of Beloit Comprehensive Plan, March 17, 2008 (http://www.beloitwi.gov/)
- Rock County Comprehensive Plan, September 10, 2009 (https://www.co.rock.wi.us/planning-comprehensive-plan-2035)

Zoning maps for the city of Beloit and town of Turtle are attached in **Appendix 11**.

7. Environmental Justice

The proposed action will have both beneficial and adverse effects to all populations. Beneficial effects include improved safety for motorists, enhanced local mobility, pedestrian and bike accommodations, and added aesthetics features. Adverse effects will be in the form of inconveniences during construction and the proposed acquisition of highway right of way from the adjacent property owners. No disproportionate adverse impacts to minority or low-income populations are expected to result from the proposed action. Beneficial and adverse effects will be similar for all populations as the project area consists of several different land types. There were several methods used including windshield survey, US Census data, public information meetings, and local official meetings. See Factor Sheet B-1 Community/Residential (Page 40) for more detailed information.

How was information obtained about the presence of populations covered by EO 12898? *(check all that apply)*	
☒ Windshield Survey	☐ Official Plan
☒ US Census Data	☐ Survey Questionnaire
☐ Real Estate Company	☐ WisDOT Real Estate
☒ Public Information Meeting	☒ Local Government
☐ Human Resources Agency Identify agency: Identify plan, approval authority and date of approval:	
☐ Other – Identify:	

a. ☒ No – Populations covered by EO 12898 are not present in project area.
b. ☐ Yes – Populations covered by EO 12898 are present in project area. Factor Sheet B-4 must be completed.

8. Title VI of the 1964 Civil Rights Act, the Americans with Disabilities Act or the Age Discrimination Act

Indicate whether or not individuals covered by Title VI have been identified. Title VI prohibits discrimination on the basis of race, color, or country of origin.

a. ☒ No – Individuals covered by the above laws were not identified.
b. ☐ Yes – Individuals covered by the above laws were identified.
   ☐ Civil Rights issues were not identified.
   ☐ Civil Rights issues were identified. Explain:

9. Public Involvement

A. Public Meetings

Date (m/d/yyyy)	**Meeting Sponsor** (WisDOT, RPC, MPO, etc.)	**Type of Meeting** (PIM, Public Hearings, etc.)	**Location**	**Approx. Number of Attendees**
8/28/2012	WisDOT	Local Officials Meeting #1	Turtle Town Halll	29
8/28/2012	WisDOT	Public Involvement Meeting #1	Turtle Town Hall	88
12/10/2013	WisDOT	Local Officials Meeting #2	Rotary River Center, Beloit WI	31
12/10/2013	WisDOT	Public Involvement Meeting #2	Rotary River Center, Beloit WI	61
8/5/2014	WisDOT	Local Official Meeting #3	Beloit Public Library	23
8/5/2014	WisDOT	Public Involvement #3	Beloit Public Library	75
10/21/14	WisDOT	Local Requested Meeting by Beloit City Council	Rotary River Center, Beloit WI	11

*For complete documentation please refer to the WisDOT project file for complete documentation for all involvement.

Agency coordination contacts (U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Wisconsin Department of Natural Resources) and American Indian Tribes were invited to participate in the local officials meetings. Representatives from the following entities were also invited to participate and generally attended the meetings:

- Town of Turtle
- Town of LaPrarie
- Town of Rock
- City of Beloit
- City of Janesville
- Rock County
- Assembly Districts 11, 15, 31, 43, 44
- Beloit City Council
- Beloit Plan Commission
- Town of Beloit Police Department
- Beloit Landmarks Committee
- Janesville MPO
- School District of Beloit Turner
- CPG Midwest

- US Infrastructure Corp
- Van Galder Bus Company
- Beloit Transit System
- IDOT District 2
- FHWA
- School District of Beloit
- Wisconsin & Southern Railroad Company
- Janesville Transit
- Stateline Area Transportation Study
- Durham School Services
- Union Pacific Railroad
- Beloit Chamber of Commerce
- Greater Beloit Economic Development Corp.

B. Other methods:

A project website was created to provide project related information to the public. All exhibits and presentations used at the public involvement meetings are available on the website www.i39-90.wi.gov. Other methods used to reach out to the public included project newsletters and articles in the local newspaper.

C. Identify groups that participated in the public involvement process. Include any organizations and special interest groups:

The I-90 Business Connection group held a meeting to discuss the future interchange reconstruction on February 18, 2014. This group includes many local businesses within the city of Beloit. There were two resolutions that were passed during this meeting. The first resolution was the preference of constructing traffic signals along the extension of WIS 81/Milwaukee Road instead of roundabouts. The second resolution that was passed was the preference of extending WIS 81 from Beloit to the County X/Hart Road Interchange. The existing WIS 81 is associated with entering the city of Beloit from I-43 and they want to keep the same nomenclature for this segment of roadway. See **Appendix 12.**

D. Indicate plans for additional public involvement, if applicable:

A public hearing is planned to be held in the spring of 2015. Additional public information and local officials meetings will be held during the design phase of the project.

10. Briefly summarize the results of public involvement.

A. Describe the issues, if any, identified by individuals or groups during the public involvement process:

The following is a list of issues brought up by attendees at the Public Involvement Meetings:

- *Access*:
  1. Business owners and residents have expressed a desire to improve access to businesses along the WIS 81/Milwaukee Road corridor and to the Gateway Business Park. Alternatives 2A, 2B, and 3B generally were favored as providing desirable access over alternatives 1A and 1B (which do not provide a local connector road to serve the east side of I-39).
  2. Some expressed concerns that the expanded interchange will increase travel time to businesses.
  3. Others are concerned the interchange will be confusing to the public which may slow economic growth in the area. Adequate signage was mentioned as being very important.
  4. One commented there would be too many roundabouts to navigate when entering Beloit from the east (Alternative 3B) if that is the chosen intersection treatment.
- *Bicycle and Pedestrian Facilities*:
  1. Many residents expressed the importance of providing bicycle and pedestrian accommodations where possible for leisure use and for commuting purposes (specifically from the east side of the interstate to the west). Alternatives 2A, 2B and 3B are favored by these residents due to the inclusion of an off road path along the local connector road. Connections to the existing paths and locations of entry/exit points were also deemed very important.
- *Noise*:
  1. Several residents were concerned of increased noise due to the expanded interchange and requested noise walls or berms for noise abatement.
- *Cost*:
  1. Cost is a concern for the public, some of which dismissed alternative 3B as too expensive. Others are concerned about the increased roadway length and long term maintenance costs of all the alternatives.
- *Environmental:*
  1. One resident inquired about impacts to the floodplain within the project.

- *Park and Ride*:
    1. One resident inquired about locating a park and ride at the interchange.
- *Alternate Route Consideration*:
    1. Several residents inquired if alternate routes have been taken into consideration during the design of the interchange.
    2. The conversion of Gateway Boulevard into a state highway, and improvements to Hart Road and/or Lathers Road was also suggested.
- *Other Concerns:*
    1. Improve the entrance ramp at the WisDOT Welcome Center to provide more space to merge onto the interstate.
    2. Add auxiliary lanes northbound between the WisDOT Welcome Center and the interchange and in both directions between the County X/Hart Road interchange and the I-43 interchange.
    3. Hart Road interchange cannot handle the increased traffic load and difficult for trucks to maneuver the roundabouts.

B. Briefly describe how the issues identified above were addressed:

The above issues were taken into consideration throughout the design process and also in the selection of the preferred alternative.

- *Access*:
    1. The access issue of extending WIS 81 eastward was one of the main topics and was one of the reasons why the city of Beloit passed a resolution in favor of Alternative 2. The proposed action includes the extension of WIS 81/Milwaukee Road.
    2. The proposed action will cause an increase in time for some users but will also decrease the time for other users. The increase and decrease in time will be approximately 3-4 minutes.
    3. The proposed action includes a detailed sign plan that will provide the proper signage necessary to clearly mark the new interchange.
    4. The traffic control is ongoing.
- *Bicycle and Pedestrian Facilities*:
    1. The preferred alternative will provide bicycle and pedestrian facilities along the extension of WIS 81/Milwaukee Road that will provide access under the interstate.
- *Noise*:
    1. A noise analysis was completed that analyzed the impacts of the new interchange in the design year 2040. It is anticipated that there will be not be any noise impact.
- *Cost*:
    1. Cost was an important issue throughout the design process. **Appendix 8** discusses in detail the cost of the alternatives. Rock County will be responsible and still continue to manage maintenance for this interchange.
- *Environmental:*
    1. The existing floodplain will be impacted by the proposed improvements due to the placement of fill in its storage area. The designers will mitigate the impacts by providing compensatory storage within the floodplain reach to balance the floodplain storage lost due to fill. It is not anticipated that the adjacent property owners will be impacted.
- *Park and Ride*:
    1. A park and ride lot is anticipated to be located in the southwest quadrant of the interchange and is currently being discussed with the city of Beloit.
- *Alternate Route Consideration*:
    1. There is no alternate route designation for this project because the interchange will remain open with temporary lane closures. However, the I-39/90 mainline reconstruction from Illinois State Line to Madison has a designated alternate route for the motorists to use during construction. See **Appendix 9** for the Alternate Route Map.
    2. Gateway Boulevard is a local road and will remain one. Improvements to Hart and Lathers Road are beyond the scope of this project and will not be included in the final plan because it is not needed for the operation of the interchange. Hart Road from County S to I-43/County X interchange will be improved as an alternate route for I-39/90.
- *Other Concerns:*
    1. The WisDOT Welcome Center ramps will be improved.
    2. Auxiliary lanes will be added northbound between the WisDOT Welcome Center and the interchange and southbound between the County X/Hart Road interchange and the I-43 interchange.
    3. I-43 & Hart Road/County X interchange has been analyzed to determine if any modifications will be needed to handle the increased traffic volumes and any improvements to truck turning movements. Hart Road improvements will occur based on the analysis and will be incorporated into the project.

11. Local/regional/tribal/federal government coordination

A. Identify units of government contacted and provide the date coordination was initiated.

Unit of Government (MPO, RPC, City, County, Village, Town, etc.)	**Coordination** Correspondence Attached	**Coordination Initiation Date** (m/d/yyyy)	**Coordination Completion Date** (m/d/yyyy)	**Comments**
Rock County	☒ Yes ☐ No	8/28/2012	Ongoing	
City of Beloit	☒ Yes ☐ No	8/28/2012	Ongoing	City of Beloit passed a resolution in favor of Alternative 2 (preferred alternative). See **Appendix 12**
City of Janesville	☐ Yes ☒ No	8/28/2012	Ongoing	
Town of Beloit	☒ Yes ☐ No	8/28/2012	Ongoing	
Town of LaPrairie	☒ Yes ☐ No	8/28/2012	Ongoing	
Town of Rock	☐ Yes ☒ No	8/28/2012	Ongoing	
Town of Turtle	☐ Yes ☒ No	8/28/2012	Ongoing	
Janesville MPO	☐ Yes ☒ No	8/28/2012	Ongoing	

B. Describe the issues, if any, identified by units of government during the public involvement process:

The local units of government identified the same issues that are found in the previous question as well as several other issues.

1. The amount of right of way that was required to construct the new interchange.
2. The number of access points for emergency situations.
3. Desire to have additional local access connection to the Gateway Business Park.
4. Provide plenty of signing for Beloit businesses along I-43 to inform drivers to exit at the Hart Road interchange.

C. Briefly describe how the issues identified above were addressed:

The four additional concerns by the units of government were incorporated into the Preferred Alternative.

1. The Preferred Alternative minimizes the amount of right of way by 6 acres compared to the Alternative 2A option.
2. The Preferred Alternative provides convenient access into the Gateway Business Park in case of an emergency situation with the extension of WIS 81/Milwaukee Road.
3. The Preferred Alternative provides access to and from the interchange with the extension of WIS 81/Milwaukee Road. On January 21, 2014, the city of Beloit passed a resolution endorsing Alternative 2. One of the main reasons they selected Alternative 2 because the extension of WIS 81/Milwaukee Road provides local access to the adjacent properties.
4. The signing plan on I-43 will follow current WisDOT and FHWA signing requirements. Specific service signs can be used on the interstate to inform drivers of businesses at a particular exit.

D. Indicate any unresolved issues or ongoing discussions:

1. The concept of constructing a park and ride lot in the interchange area is still being discussed. Current discussions include the possibility of constructing one in the southwest quadrant.
2. Determination of the intersection traffic control is still ongoing.

12. Public Hearing Requirement

☒ This document is an Environmental Assessment.
- ☐ A Notice of Opportunity to Request a Public Hearing will be published.
- ☒ A Public Hearing will be held.

☐ This document is a Type 2c Categorical Exclusion / Environmental Report.
- ☐ A Public Hearing is NOT Required.

Note: If any of the following five boxes are checked, a Notice of Opportunity to Request a Public Hearing must be published or a Public Hearing must be held.

- ☐ A substantial amount of right-of-way **will** be acquired.
- ☐ The proposed action **will** substantially change the layout or functions of connecting roadways or of the facility being improved.
- ☐ The proposed action **will** have a substantial adverse impact on abutting property.
- ☐ The proposed action **will** have other significant social, economic, environmental effects.

☐ The department has made a determination that a public hearing is in the public interest.

☐ A Notice of Opportunity to Request a Public Hearing will be published.
☐ A Public Hearing will be held.

Note: For federally-funded projects, FHWA signature of this environmental document indicates concurrence with the department's Public Hearing requirement determination.

ENVIRONMENTAL EVALUATION OF FACILITIES DEVELOPMENT ACTIONS *(continued)*

DT2094

BASIC SHEET 3 – AGENCY AND TRIBAL COORDINATION

Agency	Coordination Required?	Correspondence Attached?	Comments
WisDOT			
Regional Real Estate Section	☒ Yes ☐ No	☒ Yes ☐ No	WisDOT has acquired thru early acquisition of property 3490 Millington Road, Beloit WI. See **Appendix 17**
Bureau of Aeronautics	☒ Yes ☐ No	☒ Yes ☐ No	March 15, 2014 – Initial letter was sent to BOA with the information regarding the project. April 22, 2014 – A response was received from the BOA. The response included filing with the FAA at least 45 days prior to start of construction and contacting the Beloit Airport about this project. April 30, 2014 – Coordination was completed with the Beloit Airport. Beloit Airport indicated that cranes left in the air should be equipped with anti-collision lights at night and during the day the FAA should be notified of any crane locations. See **Appendix 18**
Railroads and Harbors Section	☒ Yes ☐ No	☐ Yes ☒ No	An initial letter was sent to the WisDOT Railroads and Harbors section for the entire I-39/90 corridor which included the overpass over the Canadian Pacific Railroad. They are okay with the proposed bridge over the Canadian Pacific Railroad. Coordination is still ongoing.
STATE AGENCY			

BASIC SHEET 3 – AGENCY AND TRIBAL COORDINATION

Agency	Coordination Required?	Correspondence Attached?	Comments
Natural Resources (DNR)	☒ Yes ☐ No	☒ Yes ☐ No	December 4, 2013 – Initial letter was sent to DNR with information regarding the project January 7, 2014 – A letter was received from DNR that identified several concerns: • Spring Brook is a warm water fishery and any in-stream work or work has the potential to adversely affect the water quality of the stream should be completed between June 15 and September 15. • The Ozark Minnow has been identified within the project area. DNR will coordinate with Bureau of Natural Heritage Conservation. • Stormwater (TMDL) is located within the project area and special requirements of the management practices applied will be determined during the design process and submitted to the DNR for review. • Upland habitat is located within the project area and design should consider impacts to the prairie restoration. • The Spring Brook floodplain is located in the southeast quadrant of the interchange. A hydraulic and hydrologic analysis must be conducted for the 100-year flood event for any new structure or existing structure that is not being replaced within a mapped floodplain. Consult with Rock County Zoning Administrator for project-specific information. • Avoid the spread of oak wilt disease and the emerald ash borer. March 25, 2014 – Agency Coordination meeting. See **Appendix 20** May 19, 2014 – A letter was received from DNR regarding the project's purpose and need and alternatives development. They identified some concerns in addition to previous review: • If wetland R-30 is impacted an equivalent post-construction storm water treatment system must be put in place. See Wetland Map (Page 52) • R-31 impacts and any mitigation should be discussed in draft EA document. See Wetland Map (Page 52) • Spring Brook is classified as an Area of Special Natural Resources interest due to presence of threatened fish. Implementation of best management practices should be considered. • A State Threatened Fish was found in the project area and DNR needs to determine if anything further needs to be done. June 18, 2014 – An email was received from DNR concurring with the wetland boundaries in the wetland delineation report. August 26, 2014 – A meeting was held with DNR and WisDOT to discuss the flood storage districts. See **Appendix 13** December 12, 2014 – An email was sent to DNR asking if a fish survey was needed for the project. See **Appendix 13**
State Historic Preservation Office (SHPO)	☒ Yes ☐ No	☒ Yes ☐ No	No archaeological sites were found. One structure named the Gonstead Chiropractic Clinic was determined to be potentially eligible for the National Register of Historic Places. March 25, 2014 – Agency coordination meeting. See **Appendix 20** June 24, 2014 - SHPO approved the Section 106 determination and agreed with a project determination of no adverse effect (DNAE) on the clinic. See **Appendix 14**

BASIC SHEET 3 – AGENCY AND TRIBAL COORDINATION

Agency	Coordination Required?	Correspondence Attached?	Comments
Agriculture (DATCP)	☒ Yes ☐ No	☒ Yes ☐ No	An AIS Addendum was published on December 27, 2013 titled *IH 39/90: Illinois State Line to USH 12&18 Dane & Rock Counties* that includes the agricultural properties impacted for this project. No additional information is required for this project. See **Appendix 15** March 25, 2014 – Agency coordination meeting. See **Appendix 20**
Other	☐ Yes ☐ No	☐ Yes ☐ No	
FEDERAL AGENCY			
U.S. Army Corps of Engineers (USACE)	☒ Yes ☐ No	☐ Yes ☒ No	December 4, 2013 – Initial letter was sent to USACE with information regarding the project. USACE provided no response. January 28, 2014 - Submitted the project's wetland delineation report and requested jurisdictional determination of the wetlands. March 25, 2014 – Agency coordination meeting. See **Appendix 20**
U.S. Fish and Wildlife Service (USFWS)	☒ Yes ☐ No	☐ Yes ☒ No	December 4, 2013 – Initial letter was sent to USFWS with information regarding the project. USFWS provided no response.
Natural Resources Conservation Service (NRCS)	☒ Yes ☐ No	☒ Yes ☐ No	Farmland Conversion Impact Rating Form AD-1006 was completed for impacts to farmland. The highest score was 37. July 31, 2014 – Initial letter was sent to NRCS with information regarding the project. August 4, 2014 – A letter was received from NRCS indicating that since the site assessment scores is below 60, the project is not subject to the Farmland Protection Policy Act (FPPA). See **Appendix 19**
U.S. National Park Service (NPS)	☐ Yes ☒ No	☐ Yes ☐ No	Coordination not required; no lands administered by the NPS are in the project area.
U.S. Coast Guard (USCG)	☐ Yes ☒ No	☐ Yes ☐ No	Coordination not required; no commercially navigable waterways are in the project area.
U.S. Environmental Protection Agency (EPA)	☒ Yes ☐ No	☐ Yes ☒ No	December 4, 2013 – Initial letter was emailed to EPA with information regarding the project. EPA provided no response. March 25, 2014 – Agency coordination meeting. See **Appendix 20**
Advisory Council on Historic Preservation (ACHP)	☐ Yes ☒ No	☐ Yes ☐ No	N/A
Other (identify)	☒ Yes ☐ No	☒ Yes ☐ No	
SOVEREIGN NATIONS			

BASIC SHEET 3 – AGENCY AND TRIBAL COORDINATION

Agency	Coordination Required?	Correspondence Attached?	Comments
American Indian Tribes	☒ Yes ☐ No	☒ Yes ☐ No	December 4, 2013 – Initial letter was sent to the American Indian Tribes with information regarding the project. December 13, 2013 – A letter was received from the Bad River Band of Lake Superior Tribe of Chippewa Indians requesting a processing fee in order to respond to the initial letter. As per FDM 26-20-1, WisDOT's policy is to not compensate any entity, including Tribes, for consultation required by law, regulation, or other authorities, where the consultation is part of administrative processes designed to protect the interests of the consulting entity. Therefore, the above request was not granted. January 30, 2014 – The Forest County Potawatomi requested to see the results of the cultural resource investigations. Further, if cultural properties are found, they would request a consultation process pursuant to Section 106 of the National Historic Preservation Act. See **Appendix 16**

BASIC SHEET 4 – ENVIRONMENTAL FACTORS MATRIX *(check all that apply)*

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Effects
A. ECONOMIC FACTORS					
A-1 General Economics	☒	☒	☐	☒	Retail businesses, light industry, and agricultural are the current land uses surrounding the project area. Movements throughout the interchange will remain open through the construction process. Access will be maintained to all businesses during the duration of the project. All adverse effects are temporary. The proposed eastward extension of WIS 81/Milwaukee Road will relocate Beloit's access to I-43 from its current location to the County X/Hart Road interchange. See A-1 General Economics factor sheet (Page 34).
A-2 Business	☒	☒	☐	☒	Kerry Ingredients & Flavours driveway access will be shifted several hundred feet to the east. Businesses west of the interchange are concerned about the loss of business due the access change from I-43 being moved to the County X/Hart Road interchange. See A-2 Business factor sheet (Page 35).
A-3 Agriculture	☒	☐	☐	☒	The proposed improvement will require the acquisition of 56 acres of farmland. Three properties will be impacted by more than 5 acres of right-of-way. December 27, 2013 - DATCP determined that an AIS is not required for this project because the properties affected are included in the AIS Addendum for the I-39/90 mainline project (WisDOT ID: 1001-10-02). See A-3 Agriculture Evaluation factor sheet (Page 37).
B. SOCIAL/CULTURAL FACTORS					
B-1 Community or Residential	☒	☒	☐	☒	The proposed action will result in beneficial community/residential effects. WIS 81/Milwaukee Road will provide additional access between the city of Beloit and the Gateway Business Park. It will also provide pedestrian and bicycle accommodations. One residential property has been acquired through the early acquisition process. The property is located along the extension of WIS 81/Milwaukee Road. There are no relocations. All adverse effects are temporary. See B-1 Community or Residential factor sheet (Page 40).
B-2 Indirect Effects	☐	☐	☒	☐	There are no indirect effects on environmental resources for this project. See **Appendix A** for WisDOT's Pre-screening Worksheet
B-3 Cumulative Effects	☐	☐	☒	☐	No cumulative effects were identified.
B-4 Environmental Justice	☐	☐	☒	☐	No minority, low-income, or elderly population in the project's area of influence will be disproportionately affected.
B-5 Historic Resources	☐	☐	☒	☒	A historic architecture survey was completed on October 8, 2013 and there was one historic property found within the project limits. June 24, 2014 – Section 106 and determination of no adverse effect (DNAE) approval was received from SHPO and concurred with a determination of no adverse effect onto the historical property **(Appendix 14)**. See B-5 Historic Resources Evaluation factor sheet (Page 43).
B-6 Archaeological/Burial Sites	☐	☐	☒	☐	An archaeological survey was completed between October 7, 2013 and October 17, 2013 and there were no archaeological sites found within the project area limits. June 24, 2014 - SHPO concurs with findings of no archaeological sites **(Appendix 14)**.
B-7 Tribal Coordination /Consultation	☐	☐	☒	☐	The Forest County Potawatomi responded and requested copies of archaeological and historical surveys that were completed for the project.

BASIC SHEET 4 – ENVIRONMENTAL FACTORS MATRIX *(check all that apply)*

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Effects
B-8 Section 4(f) and 6(f) or Other Unique Areas	☐	☐	☒	☐	There is one historic property the Gonstead Chiropractic Clinic that will require no property acquisition.
B-9 Aesthetics	☐	☒	☐	☒	The proposed action has the potential to incorporate Community Sensitive Design features into the bridge structures or along the extension of WIS 81/Milwaukee Road. The proposed action will include aesthetic features that include staining and relief features to bridges and grass and other landscaping elements. See B-9 Aesthetics factor sheet (Page 45).
C. NATURAL RESOURCE FACTORS					
C-1 Wetlands	☒	☐	☐	☒	The proposed action will impact approximately 0.6 acres of wetland. The wetland impacts are the result in the realignment of WIS 81/Milwaukee Road to provide better construction staging and remove an extra curve along I-39/90. This wetland impact is located in the northwest quadrant of the interchange. See C-1 Wetland factor sheet (Page 47).
C-2 Rivers, Streams and Floodplains	☒	☐	☐	☒	This project will replace the existing bridge on I-39/90 over Spring Brook. Spring Brook crosses the project in two locations. The land surrounding the creek includes prairie, forested upland habitat, and old field habitat. Tributary to Spring Brook crosses under I-39/90 through culverts just north of Cranston Road. The land surrounding the tributary includes old field, agricultural land, and commercial development. Floodplain encroachment will occur along Millington Road adjacent to the proposed WIS 81/Milwaukee Road to County X connection and by the Spring Brook overpass on I-39/90. Compensatory storage will be created to maintain the flood storage volume in the interchange area. See C-2 Rivers, Streams, and Floodplains factor sheet (Page 53).
C-3 Lakes or Other Open Water	☐	☐	☒	☐	No lakes or other open waters are present in the project area.
C-4 Groundwater, Wells, and Springs	☐	☐	☒	☐	This project will not impact groundwater, wells, or springs.
C-5 Upland Wildlife and Habitat	☐	☐	☒	☐	Right of way acquisition will be required along the southeast quadrant of the interchange. In front of Kerry Ingredients lies upland prairie grass. WisDOT will minimize impacts to this area by restoring the prairie along the side slopes of the highway. It should be noted that there are no regulations governing prairie mitigation in Wisconsin.
C-6 Coastal Zones	☐	☐	☒	☐	This project is not associated with a coastal zone.
C-7 Threatened and Endangered Species	☐	☐	☒	☐	Discussions of threatened or endangered species are ongoing with DNR. See commitment sheet page 32.
D. PHYSICAL FACTORS					
D-1 Air Quality	☐	☐	☒	☐	No substantial impacts to air quality are expected. This project is exempt from permit requirements formerly contained in NR411 under the Wisconsin Administrative Code.
D-2 Construction Stage Sound Quality	☒	☐	☐	☒	WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply. See Construction Stage Sound Quality Evaluation factor sheet (Page 59).
D-3 Traffic Noise	☐	☐	☒	☒	A noise analysis was completed for this project. No noise impacts are anticipated. See D-3 Traffic Noise Evaluation factor sheet (Page 61).
D-4 Hazardous Substances or Contamination	☐	☐	☒	☐	There were 3 sites identified within the project area. These 3 sites were avoided by design and will not be impacted. Structures B-53-46/47/48 & 51 were inspected for asbestos containing material (ACM). No ACM was found.

BASIC SHEET 4 – ENVIRONMENTAL FACTORS MATRIX *(check all that apply)*

Factors	Adverse	Benefit	None Identified	Factor Sheet Attached	Effects
D-5 Stormwater	☒	☒	☐	☒	Impacts will be minimized through strict adherence to WisDOT standards. Rock River total maximum daily load (TMDL) requirements will be addressed by determining the pollutant load reductions calculated for each of the project segments in the I-43 interchange area and applying those reductions to the overall Rock River basin load reduction requirements. The load reductions will be determined for both MS4 areas, where the TMDL reductions apply, and non-MS4 areas where Trans 401 reduction requirements apply. See D-5 Stormwater factor sheet (Page 64).
D-6 Erosion Control and Sediment Control	☐	☐	☒	☒	Standard erosion and sediment control measures will be implemented in accordance with the WisDOT/WDNR cooperative agreement. All erosion and sediment control measures will be installed according to Standard Specifications for Highway and Structure Construction. The erosion control plan review process will include soliciting and incorporating WDNR erosion control comments both on the plan for the 401 Water Quality Certification process during design and by reviewing the contractor's erosion control implementation plan prior to the start of construction. There are no adverse or benefits, but more detailed information about the erosion control and sediment control can be found on the D-6 Erosion Control and Sediment Control factor sheet (Page 66).
E. OTHER FACTORS					
E-1	☐	☐	☐	☐	
E-2	☐	☐	☐	☐	

BASIC SHEET 5 – ALTERNATIVES COMPARISON MATRIX

All estimates including costs are based on conditions described in this document at the time of preparation in the year of expenditure (YOE). Additional agency or public involvement may change these estimates in the future.

Environmental Issues/Impacts	Unit of Measure	Alternatives				
		No Build	Preferred Alternative			
Project Length	Miles	14	35			
Construction	Million $	19	104			
Real Estate	Million $	1	6			
TOTAL	Million $	20	110			
Wetland Area Converted to ROW	Acres	0	0.6			
Upland Habitat Area Converted to ROW	Acres	0	15.4			
Other Area Converted to ROW	Acres	3	66			
Total Area Converted to ROW	Acres	3	82			
Number of Farms Affected	Number	3	7			
Total Area Required From Farm Operations	Acres	1.8	56			
AIS Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Farmland Rating	Score	34	36			
Total Buildings Required	Number	0	0			
Housing Units Required	Number	0	1			
Commercial Units Required	Number	0	0			
Other Buildings or Structures Required	Number & Type	0	0			
Indirect Effects		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Cumulative Effects		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Environmental Justice Populations		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Historic Properties	Number	0	1			
Archeological Sites	Number	0	0			
Burial Site Protection *(authorization required)*		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
106 MOA Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4(f) Evaluation Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
6(f) Land Conversion Required		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Flood Plain		☐ Yes ☒ No	☒ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Total Wetlands Filled	Acres	0	0.6			
Stream Crossings	Number	2	2			
Endangered Species		☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Design Year Noise Sensitive Receptors						
No Impact	Number	14	14			
Impacted	Number	0	0			
Contaminated Sites	Number	0	0			

*Note the Original EA (2010) preferred alternative environmental impacts were not broken in the same categories as the table above. It was not included in the table above because the purpose and need between the projects are different. For more description of the original EA see **Appendix 8**.

BASIC SHEET 6 – TRAFFIC SUMMARY MATRIX

	ALTERNATIVES/SECTIONS					
	No Build*	**Build (All Alternatives)***	**B**	**C**	**D**	**E**
TRAFFIC VOLUMES						
Existing ADT Yr. 2010	45700	45700				
Const. Yr. ADT Yr. 2016	52900	52900				
Const. Plus 10 Yr. ADT Yr. 2028	67100	67100				
Design Yr. ADT Yr. 2040	81300	81300				
DHV Yr. 2040	7804	7804				
TRAFFIC FACTORS						
K [☒ $_{30}$ /☐ $_{100}$/☐ $_{200}$] (%)	9.6%	9.6%	%	%	%	%
D (%)	58/42%	58/42%	%	%	%	%
Design Year T (% of ADT)	N/A	N/A	%	%	%	%
T (% of DHV)	35.1%	35.1%	%	%	%	%
Level of Service	F	C				
SPEEDS						
Existing Posted	65	65				
Future Posted	65	65				
Design Year Project Design Speed	70	70				
OTHER *(specify)*						
P (% of ADT)	N/A	N/A	%	%	%	%
K_8 (% OF ADT)	N/A	N/A	%	%	%	%
Other						

ADT = Average Daily Traffic
DHV = Design Hourly Volume
K [$_{30/100/200}$] : K_{30} = Interstate, K_{100} = Rural, K_{200} = Urban, % = ADT in DHV
D = % DHV in predominate direction of travel
T = Trucks
P = % ADT in peak hour
K_8 = % ADT occurring in the average of the 8 highest consecutive hours of traffic on an average day (required only if CO analysis is required).

*All volumes are based on Site ID #530275 (See Appendix 21 for WisDOT Traffic Forecast)

BASIC SHEET 7 – EIS SIGNIFICANCE CRITERIA

In determining whether a proposed action is a "major action significantly affecting the quality of the human environment," the proposed action must be assessed in light of the following criteria (1) if significant impact(s) will result, the preparation of an environmental impact statement (EIS) should commence immediately. Indicate whether the issue listed below is a concern for the proposed action or alternative and (2) if the issue is a concern, explain how it is to be addressed or where it is addressed in the environmental document.

1. Will the proposed action stimulate substantial indirect environmental effects?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

2. Will the proposed action contribute to cumulative effects of repeated actions?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

3. Will the creation of a new environmental effect result from this proposed action?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

4. Will the proposed action impact geographically scarce resources?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

5. Will the proposed action have a precedent-setting nature?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

6. Is the degree of controversy associated with the proposed action high?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

7. Will the proposed action be in conflict with official agency plans or local, state, tribal, or national policies, including conflicts resulting from potential effects of transportation on land use and transportation demand?
   - ☒ No
   - ☐ Yes – Explain or indicate where addressed.

BASIC SHEET 8 – ENVIRONMENTAL COMMITMENTS

Attach a copy of this page to the design study report and the PSE submittal package.

Factor Sheet	Comments
A-1 General Economics	No commitments needed
A-2 Business	**Commitments Made –** During construction, provide access to all businesses in the project area. The Wisconsin Department of Transportation (WisDOT) construction engineer will ensure the fulfillment of this commitment.
A-3 Agriculture	No commitments needed
B-1 Community or Residential	**Commitments Made –** During construction, provide access to all properties abutting the corridor. The WisDOT construction engineer will ensure fulfillment of this commitment. **Commitments Made** – The Rock County Emergency Dispatch Center will be kept informed of the status of construction and any restrictions on access locations for emergency vehicles. Reach out to school districts regarding bus routes before/during the road closure. The WisDOT construction engineer will ensure and monitor the fulfillment of these commitments.
B-2 Indirect Effects	No commitments needed
B-3 Cumulative Effects	No commitments needed
B-4 Environmental Justice	No commitments needed
B-5 Historic Resources	The potentially eligible historic property Gonstead Chiropractic Clinic will be avoided by design.
B-6 Archaeological Sites	No commitments needed
B-7 Tribal Coordination/Consultation	**Commitments Made** – WisDOT Bureau of Technical Services Environmental Process and Documentation Section (BTS-EPDS) will send the archaeological and historic survey reports to the Forest County Potawatomi Community. The WisDOT environmental coordinator and design engineer will ensure fulfillment of this commitment.
B-8 Section 4(f) and 6(f) or Other Unique Areas	
B-9 Aesthetics	**Commitments Made** – Community Sensitive Design (CSD) elements will be discussed with local officials, municipalities, and the public when the project is scheduled for final design/construction to determine what elements will be included as part of the project. The WisDOT design engineer will ensure fulfillment of this commitment.
C-1 Wetlands	**Commitments Made** – Measures will be implemented to minimize wetland impacts in the area. A total of 0.6 acres of wetland will be impacted and the impacts will be mitigated using the World Dairy Center bank site at ratios agreed to with the Wisconsin Department of Natural Resources (WDNR). The WisDOT environmental coordinator will ensure fulfillment of this commitment.

C-2 Rivers, Streams and Floodplains	**Commitments Made** – Standard erosion control practices will be implemented during construction to minimize short-term adverse effects to the floodplain. The WisDOT construction engineer will monitor and ensure fulfillment of this commitment. **Commitments Made** – Work that could affect water quality and habitat will be completed between June 15 and September 15. The contractor may work in other areas near the waterway beyond September 15th provided appropriate measures are taken to control erosion. The special provisions will include the date of restrictions for in-stream work. The WisDOT construction engineer will ensure and monitor the fulfillment of this commitment. **Commitments Made** – Compensatory storage will be created to mitigate the filing in of the flood storage volume. Plans, specifications and estimates (PS&E) documents shall specify requirements to be met during construction. The WisDOT design engineer will ensure fulfillment of this commitment.
C-3 Lakes or other Open Water	No commitments needed
C-4 Groundwater, Wells and Springs	No commitments needed
C-5 Upland Wildlife and Habitat	No commitments needed
C-6 Coastal Zones	No commitments needed
C-7 Threatened and Endangered Species	Coordination with WDNR is ongoing. Special provisions may be required.
D-1 Air Quality	No commitments needed
D-2 Construction Stage Sound Quality	**Construction Restrictions** – The contractor shall check for, and comply with, local ordinances governing the hours of operation of construction equipment. The special provisions will include restrictions for operating motorized construction equipment during certain times of the week. The WisDOT construction engineer will monitor and ensure fulfillment of this commitment.
D-3 Traffic Noise	**Local Municipality Coordination** – Coordination with local units of government shall be completed in areas currently undeveloped to notify them of predicted sound levels for land use planning purposes. The WisDOT environmental coordinator and design engineer will ensure fulfillment of this commitment.
D-4 Hazardous Substances or Contamination	**Commitments Made** – Asbestos: No asbestos-containing material has been found on structure(s) (B-53-48, B-53-51, B-53-46, and B-53-47). Standard special provision 107-125 shall be included in the plans. The contractor will be responsible for completion of the Notification of Demolition and/or Renovation (DNR form 4500-113) if required. A copy of the inspection report is available from the region office. **Commitments Made** – Special provisions will be included in the project to warn the contractor of the presence of hazardous materials contamination outside of the construction limits. The WisDOT design engineer will ensure fulfillment of this commitment.
D-5 Storm Water	**Commitments Made** – Stormwater management shall comply with Trans 401 and address the requirements in the Rock River total maximum daily load (TMDL) through the use of appropriate stormwater quality control practices such as grass swales, standard and enhanced filter strips, infiltration areas, and wet detention ponds and catch basins where they can be practically maintained. PS&E documents shall specify requirements to be met during construction. The WisDOT design engineer will ensure fulfillment of this commitment.

D-6 Erosion Control	**Commitments Made** – Proper erosion control measures will be used to minimize impacts per WisDOT and WDNR and Trans 401 of Wisconsin's Administrative Code. An Erosion Control Implementation Plan will be prepared for approval by WisDOT prior to construction. The erosion control plan review process will include soliciting and incorporating WDNR erosion control comments both on the plan for the 401 Water Quality Certification process during design and by reviewing the contractor's erosion control implementation plan prior to the start of construction. Implementation will occur and will be monitored during construction by the construction engineer, who will monitor and ensure fulfillment of this commitment.
E-1 Other Emerald Ash Borer	**Commitments Made** – It is illegal to move or transport ash tree material, the emerald ash borer, and hardwood debris (i.e. firewood) from Emerald Ash Borer (EAB) beetle quarantined areas to a non-quarantined area without a compliance agreement issued by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP). Regulated items include cut hardwood (non-coniferous) firewood, ash logs, ash mulch or bark fragments larger than one-inch in diameter, or ash nursery stock. The contractor will have an arborist identify ash trees along the project prior to construction. The WisDOT construction engineer will monitor and ensure fulfillment of this commitment.
E-2 Other Oak Wilt	**Commitments Made** – Due to the possibility of oak wilt in the project area, to prevent the spread of oak wilt disease avoiding cutting or pruning of oaks from April through September. The WisDOT construction engineer will ensure and monitor the fulfillment of this commitment.
E-3 Other FAA Coordination	**Commitments Made** – Federal Aviation Administration (FAA) should be contacted to determine if a permit is required during final design. If a permit is required, it shall be filed for at least 45 days prior to the start of construction to allow enough time for the completion of a determination of "no hazard to air navigation" or "hazard to air navigation". The WisDOT construction engineer will ensure fulfillment of this commitment. If any changes to the permit are needed, the contractor will be responsible for contacting FAA with the permit modifications needed. He will also be responsible that the anti-collision lights are installed and working for cranes that are left in the air at night and notifying FAA during the day for the crane locations. The WisDOT construction engineer will ensure fulfillment of this commitment.

FACTOR SHEETS DEFINED

This section of the Environmental Assessment (EA) is called the "Factor Sheets." Individual Factor Sheets correspond with specific environmental factors identified in the Environmental Factors Matrix of the Basic Sheets (pg. 28). The Factor Sheets are used to provide more detailed information on environmental factors and issues that may be substantial and require more of an in-depth discussion than is provided in the Basic Sheets. If there is no substantial impact to a specific environmental factor, a Factor Sheet was not completed.

Factor Sheets Page

GENERAL ECONOMICS EVALUATION

Wisconsin Department of Transportation

Factor Sheet A -1

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Briefly describe the existing economic characteristics of the area around the project:

Economic Activity	Description
a. Agriculture	The northeast quadrant of the I-39/90 and I-43/WIS 81 interchange is currently used for agricultural purposes. However, the future land use for that area is planned to be community commercial and residential. The future land use surrounding the project area will only have agriculture at the north end of the project limits.
b. Retail business	Retail businesses are located on the west side of the interchange in the city of Beloit. These businesses are located along WIS 81 and include large superstores, hotels, restaurants, car dealerships, and other businesses.
c. Wholesale business	N/A
d. Heavy industry	N/A
e. Light industry	Pepisco, Hormel Foods, Staples, Jacobson Beloit LLC, and Kerry Inc. are all located between the I-39/90 and I-43/WIS 81 interchange and the project's south limits. The Gateway Business Park is located in the southeast quadrant of the interchange and runs parallel to I-39/90 down to State Line Road.
f. Tourism	The traffic continues to increase along I-39/90 between the city of Beloit and Madison, especially during the summer months when tourists drive this corridor from Illinois up to northern Wisconsin. Also, the WisDOT Welcome Center is located within the project limits, just south of the interchange.
g. Recreation	N/A
h. Forestry	N/A
i.	

2. Discuss the economic advantages and disadvantages of the proposed action and whether advantages would outweigh disadvantages. Indicate how the project would affect the characteristics described in item 1 above:

Advantage – The preferred alternative will enhance local mobility by improving access into the city of Beloit from the extension of WIS 81/Milwaukee Road to the County X/Hart Road interchange. This new extension will also provide pedestrian and bicycle accommodations between the city of Beloit and the Gateway Business Park.

Disadvantage – The 0.25 mile new extension of WIS 81/Milwaukee Road will relocate local Beloit access from westbound I-43 to the County X/Hart Road interchange. This extension will require westbound vehicles to use the County X/Hart Road interchange to enter the city of Beloit via WIS 81/Milwaukee Road. This will result in additional travel time (~3 minutes) for vehicles entering the city from I-43.

3. What effect will the proposed action have on the potential for economic development in the project area?

☐ **The proposed project will have no effect on economic development.**

☒ **The proposed project will have an effect on economic development.**

☒ Increase, describe: The extension of WIS 81/Milwaukee Road to the County X/Hart Road Interchange will improve local access to the Gateway Business Park and is consistent with the local land use. Local access from this interchange is important in order to be consistent with local and regional transportation and land use planning objectives and to be compatible with the proposed roadway improvements identified in the city of Beloit's 2008 Comprehensive Plan. The plan includes the desire to develop regional commercial uses near the I-43 interchange. Specifically, the area between I-43 and IL 75 has been identified as an area for future business park development.

☐ Decrease, describe: _____

BUSINESS EVALUATION

Wisconsin Department of Transportation

Factor Sheet A-2

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Is a Conceptual Stage Relocation Plan attached to this document?

☐ Yes

☒ No - (Explain) There are no businesses to be relocated as part of this project.

2. Describe the economic development or existing business areas affected by the proposed action:

Kerry Ingredients & Flavours access will be affected due to the new WIS 81/Milwaukee Road extension. Their driveway access will be shifted several hundred feet to the east. Businesses along WIS 81/Milwaukee Road west of the interchange are concerned about the loss of business due to the access from I-43 being moved to the County X/Hart Road interchange.

3. Identify and discuss existing modes of transportation and their traffic within the economic development or existing business area:

Motor vehicles are the primary mode of transportation for the corridor and the area. Bicycle and pedestrian accommodations are not present.

4. **Identify and discuss effects on the economic development potential and existing businesses that are dependent upon the transportation facility for continued economic viability:**

☐ The proposed project will have no effect on a transportation-dependent business or industry.

☒ The proposed action may change the conditions for a business that is dependent upon the transportation facility. Identify effects, including effects which may occur during construction.

Businesses along WIS 81/Milwaukee Road might see a minimal impact due to the access from I-43 being moved to the County X/Hart Road interchange. Approximately 80% of motor vehicles are exiting at the I-39/90 ramps. The current ramps access will remain the same in the proposed action along I-39/90. However, the other 20% of motor vehicles are exiting from I-43 to WIS 81/Milwaukee Road and will need to use the County X/Hart Road interchange to access WIS 81/Milwaukee Road.

5. Describe both beneficial and adverse effects on:

A. The existing business area affected by the proposed action. Include any factors identified by business people that they feel are important or controversial.

The I-90 Business Connection group that is comprised of 23 businesses in the area sent an official letter to WisDOT that included two resolutions related to this project. The first resolution is that they are concerned about the number of potential roundabouts a motor vehicle would be required to pass through if they were entering the city of Beloit from I-43 using the County X/Hart Road interchange. They would prefer to see these intersections signalized. The second resolution is that they want to see WIS 81 start at the off ramp at the County X/Hart Road interchange. This allows WIS 81 roadway to still be the roadway that vehicles use to access the city of Beloit from I-43.

B. The existing employees in businesses affected by the proposal. Include, as appropriate, a discussion of effects on minority populations or low-income populations.

Some existing employees will experience both an increase and decrease in travel times to their jobs (~3-4 minutes).

6. Estimated number of businesses and jobs that would be created or displaced because of the project:

Business/Job Type	Businesses			Jobs	
	Created	Displaced	Value	Created	Displaced
Retail	0	0	0	0	0
Service	0	0	0	0	0

Wholesale	0	0	0	0	0
Manufacturing	0	0	0	0	0
Other (List)	0	0	0	0	0

7. Are any owners or employees of created or displaced businesses elderly, disabled, low-income or members of a minority group?

☒ No
☐ Yes – If yes, complete Factor Sheet B-4, Environmental Justice Evaluation.

8. Is Special Relocation Assistance Needed?

☒ No
☐ Yes – Describe special relocation needs.

9. Identify all sources of information used to obtain data in item 8:

☐ WisDOT Real Estate Conceptual Stage Relocation Plan
☐ Multiple Listing Service (MLS)
☐ Newspaper listing(s)
☒ Other - Identify: N/A

10. Describe the business relocation potential in the community:

A. Total number of available business buildings in the community. N/A

B. Number of available and comparable business buildings by type and price (Include business buildings in price ranges comparable to those being dislocated, if any).
N/A Number of available and comparable type business buildings in the price range of _____
N/A Number of available and comparable type business buildings in the price range of _____
N/A Number of available and comparable type business buildings in the price range of _____

11. Describe how relocation assistance will be provided in compliance with the WisDOT Relocation Manual or FHWA regulation 49 CFR Part 24. Check all that apply:

☐ Business acquisitions and relocations will be completed in accordance with the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended." In addition to providing for payment of "Just Compensation" for property acquired, additional benefits are available to eligible displaced persons forced to relocate from their business. Some available benefits include relocation advisory services, reimbursement of moving expenses, replacement of business payments. In compliance with State law, no person would be displaced unless a comparable replacement business would be provided.

Compensation is available to all displaced persons without discrimination. Before initiating property acquisition activities, property owners will be contacted and given an explanation of the details of the acquisition process and Wisconsin's Eminent Domain Law under Section 32.05, Wisconsin Statutes. Any property to be acquired will be inspected by one or more professional appraisers. The property owner will be invited to accompany the appraiser during the inspection to ensure the appraiser is informed of every aspect of the property. Property owners will be given the opportunity to obtain an appraisal by a qualified appraiser that will be considered by WisDOT in establishing just compensation. Reasonable cost of an owner's appraisal will be reimbursed to the owner if received within 60 days of initiation of negotiations. Based on the appraisal(s) made, the value of the property will be determined, and that amount offered to the owner.

☐ Describe other relocation assistance requirements, not identified above.

12. Identify any difficulties relocating a business displaced by the proposed action and describe any special services needed to remedy identified unusual conditions:

N/A

13. Describe any additional measures that will be used to minimize adverse effects or provide benefits to those relocated. Also discuss accommodations made to minimize adverse effects to businesses that may be affected by the project, but not relocated:

N/A

AGRICULTURE EVALUATION

Wisconsin Department of Transportation

Factor Sheet A-3

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Total acquisition interest, by type of agricultural land use:

Type of Land Acquired From Farm Operations	Type of Acquisition (acres)		Total Area Acquired (acres)
	Fee Simple	Easement	
Crop land and pasture	55.4		55.4
Woodland			
Land of undetermined or other use (e.g., wetlands, yards, roads, etc.)	0.6		0.6
Totals	56.0		56.0

2. Indicate number of farm operations from which land will be acquired:

Acreage to be Acquired	Number of Farm Operations
Less than I acre	2
1 acre to 5 acres	2
More than 5 acres	3

3. Is land to be converted to highway use covered by the Farmland Protection Policy Act?

☒ No
- ☐ The land was purchased prior to August 6, 1984 for the purpose of conversion.
- ☐ The acquisition does not directly or indirectly convert farmland.
- ☐ The land is clearly not farmland
- ☒ The land is already in, or committed to urban use or water storage.

☐ Yes (This determination is made by the Natural Resources Conservation Service (NRCS) via the completion of the Farmland Impact Conversion Rating Form, NRCS Form AD-1006)
- ☐ The land is prime farmland which is not already committed to urban development or water storage.
- ☐ The land is unique farmland.
- ☐ The land is farmland which is of statewide or local importance as determined by the appropriate state or local government agency.

4. Has the Farmland Impact Conversion Rating Form (AD-1006) been submitted to NRCS?

☐ No - Explain.

☒ Yes
- ☒ The Site Assessment Criteria Score (Part VI of the form) is less than 60 points for this project.
  Date Form AD-1006 completed: February 17, 2014
- ☐ The Site Assessment Criteria Score is 60 points or greater.
  Date Form AD-1006 completed. _____

See Appendix 19 for NRCS correspondence.

5. Is an Agricultural Impact Statement (AIS) Required?

☐ No
- ☐ Eminent Domain will not be used for this acquisition
- ☐ The project is a “Town Highway” project
- ☐ The acquisition is less than 1 acre
- ☐ The acquisition is 1-5 acres and DATCP chooses not to do an AIS.
- ☐ Other.

☒ Yes
- ☒ Eminent Domain may be used for this acquisition.
- ☒ The project is not a "Town Highway" project
- ☐ The acquisition is 1-5 acres and DATCP chooses to do an AIS.
- ☒ The acquisition is greater than 5 acres
- ☒ Other

An AIS addendum was published on 12/27/13 as part of the previous I-39/90 mainline project ID 1001-10-02 that included the I-43 interchange adjacent properties. See Appendix 15 for DATCP letter and AIS addendum.

6. Is an Agricultural Impact Notice (AIN) Required?

☐ No, the project is not a State Trunk Highway Project - AIN not required but complete questions 7-16.

☒ Yes, the project is a State Trunk Highway Project - AIN may be required.

Is the land acquired "non-significant"?

☐ Yes - (All must be checked) An AIN is not required but complete questions 7-16.
- ☐ Less than 1 acre in size
- ☐ Results in no severances
- ☐ Does not significantly alter or restrict access
- ☐ Does not involve moving or demolishing any improvements necessary to the operation of the farm
- ☐ Does not involve a high value crop

☒ No
- ☐ Acquisition 1 to 5 acres - **AIN required**. Complete Pages 1 and 2, Form DT1999, (Pages 1 and 2, Figure 1, Procedure 21-25-30.)
- ☒ Acquisition over 5 acres - **AIN required**. Complete Pages 1, 3 and 4, Form DT1999. (Pages 1, 3 and 4, Figure 1, Procedure 21-25-30)

If an AIN is completed, do not complete the following questions 7-16.

7. Identify and describe effects to farm operations because of land lost due to the project:

☐ Does Not Apply.

☒ Applies – Discuss.

Currently, land in the interchange's northeast quadrant is being rented as crop land. A total of 56 acres of edge right-of-way from farmland will be impacted along the interchange. The city of Beloit's future land use plan indicates that this land is anticipated to be developed into commercial property. The primary negative effect is the loss of farmable land to individual landowners.

8. Describe changes in access to farm operations caused by the proposed action:

☒ Does Not Apply.

☐ Applies – Discuss.

9. Indicate whether a farm operation will be severed because of the project and describe the severance (include area of original farm and size of any remnant parcels):

☒ Does Not Apply.

☐ Applies – Discuss.

10. Identify and describe effects generated by the acquisition or relocation of farm operation buildings, structures or improvements (e.g., barns, silos, stock watering ponds, irrigation wells, etc.). Address the location, type, condition and importance to the farm operation as appropriate:

☒ Does Not Apply.

☐ Applies – Discuss.

11. Describe effects caused by the elimination or relocation of a cattle/equipment pass or crossing. Attach plans, sketches, or other graphics as needed to clearly illustrate existing and proposed location of any cattle/equipment pass or crossing:

☒ Does Not Apply.

☐ Replacement of an existing cattle/equipment pass or crossing is not planned. Explain.

☐ Cattle/equipment pass or crossing will be replaced.
☐ Replacement will occur at same location.
☐ Cattle/equipment pass or crossing will be relocated. Describe.

12. Describe the effects generated by the obliteration of the old roadway:

☒ Does Not Apply.
☐ Applies – Discuss.

13. Identify and describe any proposed changes in land use or indirect development that will affect farm operations and are related to the development of this project:

☒ Does Not Apply.
☐ Applies – Discuss.

14. Describe any other project-related effects identified by a farm operator or owner that may be adverse, beneficial or controversial:

☒ No effects indicated by farm operator or owner.
☐ Applies – Discuss.

15. Indicate whether minority or low-income population farm owners, operators, or workers will be affected by the proposal: (Include migrant workers, if appropriate.)

☒ No
☐ Applies – Discuss.

16. Describe measures to minimize adverse effects or enhance benefits to agricultural operations:

Land acquisition has been minimized as much as possible to reduce the impact to adjacent owners and their farm operations. The project footprint was kept to a minimum through the use of temporary easements in some locations rather than acquiring right-of-way in fee.

COMMUNITY OR RESIDENTIAL EVALUATION

Wisconsin Department of Transportation

Factor Sheet B-1

Alternative Modified 2A	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. **Give a brief description of the community or neighborhood affected by the proposed action:**

Name of Community/Neighborhood –
City of Beloit
Incorporated
☒ Yes ☐ No

Total Population
36,966

Demographic Characteristics

Census Year ___2010____	% of Population
White	68.9
African American	15.1
Native American	0.4
Asian	1.1
Other Race	10.0
Two or More Races	4.4

Name of Community/Neighborhood –
Town of Turtle
Incorporated
☐ Yes ☒ No

Total Population
2,429

Demographic Characteristics

Census Year ___2000____	% of Population
White	97.26
African American	1.47
Native American	0.33
Asian	0.25
Other Race	0.45
Two or More Races	0.25

2. Identify and discuss existing modes of transportation and their importance within the community or Neighborhood:

I-43 is currently a route of state, regional, and local importance and it is included in the National Highway System. This interstate serves and connects Beloit, Milwaukee, and Green Bay. I-43 is identified as a Backbone route by the WisDOT Corridors 2030 Transportation Plan and as Primary Highway in the Glacial Plains Corridor in Connections 2030. The interchange itself currently does not have any accommodations for pedestrians or bicycles.

The I-39/90 and I-43/WIS 81 interchange serves as the primary interstate access to the city of Beloit via WIS 81. There are several other local access roads from the east into the city of Beloit. Local access from this interchange is important in order to be consistent with local and regional transportation and land use planning objectives and to be compatible with the proposed roadway improvements identified in the city of Beloit's 2008 Comprehensive Plan.

The town of Turtle is accessed from I-43 by using the County X/Hart Road interchange.

3. **Identify and discuss the probable changes resulting from the proposed action to the existing modes of transportation and their function within the community or neighborhood:**

   The proposed interchange improvement will include pedestrian and bicycle accommodations from the city of Beloit to the Gateway Business Park along the WIS 81/Milwaukee Road extension and ultimately up to the I-43/County X/Hart Road interchange. This improvement will provide a facility for both pedestrians and bicyclists to safely cross I-39 in this area.

4. **Briefly discuss the proposed action's direct and indirect effect(s) on existing and planned land use in the community or neighborhood:**

   The 2008 City of Beloit Comprehensive Plan identifies the I-39/90 and I-43/WIS 81 interchange as a planned improvement project. The future land use plans in the project area are based on the completion of this new and improved interchange. The future land use plans include the transition from farmland to a new community commercial and planned neighborhood in the northeast quadrant of the interchange. See **Appendix 10** for current and future land use maps.

   Also, the city of Beloit is anticipating that the interchange's southwest quadrant will be developed into commercial property. There appears to be interest in building a hotel in this area. In addition to the hotel, there have been discussions between the Department and Beloit in regards to possibly constructing a park and ride lot in this area, adjacent to the planned development.

5. **Address any changes to emergency or other public services during and after construction of the proposed project:**

   Emergency services will be maintained during construction as there will be no designated alternate route for this project. Intermittent delays due to lane closures can be expected during construction. Once the proposed action is completed, the extension of WIS 81/Milwaukee Road will improve the time from the city of Beloit to the Gateway Business Park by providing a new intersection with Gateway Boulevard.

6. **Describe any physical or access changes that will result. This could include effects on lot frontages, side slopes or driveways (steeper or flatter), sidewalks, reduced terraces, tree removals, vision corners, etc.:**

   The Kerry Corporation driveway will be relocated on their property. This driveway will be moved to the east from their existing entrance along the WIS 81/Milwaukee Road extension. The proposed improvements enhance the local mobility from Beloit to the Gateway Business Park. The new interchange will include extending WIS 81/Milwaukee Road from its current location in Beloit to connect with the I-43/County X/Hart Road interchange. This will move the local Beloit access from I-43 to the County X/Hart Road interchange. Bicycle and pedestrian accommodations will be provided on the WIS 81/Milwaukee Road extension.

7. **Indicate whether a community/neighborhood facility will be affected by the proposed action and indicate what effect(s) this will have on the community/neighborhood**:

   N/A

8. **Identify and discuss factors that residents have indicated to be important or controversial**:

   Residents and businesses identified that the local access between the city of Beloit and the southeast quadrant of the I-43 interchange is very important. Throughout the design process it was emphasized that the city of Beloit was in favor of the additional access. They were not in favor of any alternative that did not provided this access. They passed a resolution in favor of the alternative that provided this access. The residents indicated that bicycle and pedestrian mobility was also an important factor as well as minimizing the right of way impacts. The proposed action will include both bicycle and pedestrian accommodations and will minimize right of way impacts.

9. **List any Community Sensitive Design considerations, such as design considerations and potential mitigation measures.**

   The proposed action has the potential to incorporate CSD features into the bridge structures by making them aesthetically pleasing. WisDOT will coordinate with the local officials to discuss potential aesthetic treatments. The selection of the preferred alternative provided additional local access to the Gateway Business Park to enhance local

mobility. The extension allowed direct access to the Gateway Business Park from the city of Beloit. This extension will also create an additional intersection along WIS 81/Milwaukee Road.

10. Indicate the number and type of any residential buildings that will be acquired because of the proposed action. If either item a) or b) is checked, items 11 through 18 do not need to be addressed or included in the environmental document. If item c) is checked, complete items 11 through 18 and attach the Conceptual Stage Relocation Plan to the environmental document:

a. ☐ None identified.
b. ☒ No occupied residential building will be acquired as a result of this project. Provide number and description of non-occupied buildings to be acquired.
c. ☐ Occupied residential building(s) will be acquired. Provide number and description of buildings, e.g., single family homes, apartment buildings, condominiums, duplexes, etc.

WisDOT has acquired thru early acquisition of property 3490 Millington Road, Beloit, WI. **See Appendix 17 Regional Real Estate Section Correspondence** (Early Acquisition) for further details.

HISTORIC RESOURCES EVALUATION

Wisconsin Department of Transportation

Factor Sheet B-5

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

Section 106 Form or other documentation, with all necessary approvals, must be attached to the Environmental Document for all projects.

1. Parties contacted:

Parties Contacted	Date Contacted	Comments Received		
		No	Yes	Check if Attached
WI-SHPO	1/28/14		X	☒ See Appendix 14
Property Owners	9/10/13	X		☐
				☐
				☐
				☐
				☐
				☐
				☐

2. Property Name: Gonstead Chiropractic Clinic

3. Location: 3535 Clinic Road

4. Use: Chiropractic Clinic

5. Property type:
- ☐ Bridge
- ☒ Building
- ☐ Historic District
- ☐ Other: _____

6. Property Designations:
- ☐ National Historic Landmark (NHL)
- ☐ National Register of Historic Places (NRHP)
- ☐ State Register of Historic Places
- ☐ Local Registry
- ☐ Tribal Registry

7. A Determination of Eligibility (DOE) has been prepared:
- ☐ No - Property is already on NRHP or NHL.
- ☒ Yes - DOE prepared.
- ☐ Other: _____

8. Describe the significance of the structures and/or buildings:

The Gonstead Chiropractic Clinic is recommended as eligible for the National Register of Historic Places as a fine representative of the Neo-Expressionist subtype of Contemporary architecture. The building is in excellent condition and retains a high degree of integrity. The property's period of significance is 1964, the year of construction. Because it is an excellent representative of Contemporary architecture with a high degree of integrity and architectural distinction, the property is considered eligible for listing under Criterion C.

Following consultation with SHPO, the property is not considered to be eligible for listing as the work of a master architect because no information was found to suggest that Dresser is widely recognized as such and as a scholarly examination of Dresser's career and work does not exist at this time.

No information was found to suggest eligibility under Criterion A: History or Criterion B: Significant person.

9. In compliance with the requirements of Section 106, of the National Historic Preservation Act, the proposed project's effects on the historic property, (e.g., structure or building) have been evaluated in the following report, a copy of which is:

☐ In the project file, or
☒ Attached to this document:
- ☐ Documentation for determination of no historic properties affected (Reported on the Section 106 Review Form).
- ☒ Documentation for determination of no adverse or conditional no adverse effect to historic properties.
- ☐ Documentation for Consultation about adverse effect(s). A Memorandum of Agreement has been completed.
  - ☐ No. Consultation about effects is continuing.
  - ☐ Yes, a copy of the MOA is attached to this document. Summarize MOA stipulations below:

10. Do FHWA requirements for Section 4(f) apply to the project's use of the historic property?

☒ No
- ☐ Project is not federally funded.
- ☒ No right-of-way or Permanent Limited Easements will be acquired from the property and the project will not substantially impair the characteristics that qualify the property for the NRHP.
- ☐ Right-of-way will be acquired from the NRHP property but a *de minimus* finding has been proposed.
- ☐ Other – Explain:

☐ Yes – Complete Factor Sheet B-8, Section 4(f) and 6(f) or other Unique Areas.

AESTHETICS EVALUATION

Wisconsin Department of Transportation

Factor Sheet B-9

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Landscape Characteristics:

a. Identify and briefly describe the visual character of the landscape:

The visual landscape of the I-39/90 and I-43/WIS 81 interchange area is split between rural and commercial. Industrial businesses, retail businesses, houses, and farmland surround the project area. The project is located primarily in the city of Beloit and the town of Turtle. The Canadian Pacific Railroad and the Spring Brook are located south of the interchange and run through the project area.

b. Indicate the visual quality of the view-shed and identify landscape elements which would be visually sensitive:

The visual quality of the existing view shed consists of a 54-year old cloverleaf interchange with businesses, houses, and farmland adjacent to the roadway. The project area does not contain any views that are considered visually sensitive.

2. User/viewer Characteristics:

b. Identify and discuss the viewers who will have a <u>view of</u> the improved transportation facility:

All of the residential and business properties adjacent to the I-39/90 and I-43/WIS 81 project area have a direct view from their properties. The change these viewers will notice will be minimal considering the distance from the adjacent properties to the interchange. The overall interchange design will change from an existing cloverleaf configuration to a free-flow system interchange with an embedded diamond interchange. This will increase the overall height by 26 feet from the current elevation to accommodate the free flow movements, but will have a minor impact to the overall view. See **Appendix 8** for computer renderings of the proposed improvements.

c. Identify and discuss users of the transportation facility who will have a <u>view from</u> the facility:

Users who will have a view from the transportation facility include vehicles traveling on WIS 81/Milwaukee Road, I-39/90 or I-43. Bicyclists and pedestrians will also have a view from the facility on the extension of WIS 81/Milwaukee Road to the County X/Hart Road interchange.

3. Effects:

a. Describe whether and how the project would affect the visual character of the landscape:

The proposed project will not significantly impact the visual character of the landscape. The proposed action will result in replacing an aging interchange with a new, re-configured interchange. WisDOT and the city of Beloit will evaluate options for aesthetic features that will improve the overall appearance of the interchange. These features could possibly include staining and relief features to the bridge structure and grass/landscaping elements. It is anticipated that along the extension of WIS 81/Milwaukee Road street lighting and landscaping features will be present.

WIS 81/Milwaukee Road will be extended eastward to the I-43/County X/Hart Road interchange. This new local road will include the addition of bicycle and pedestrian accommodations which will allow for the ability to add grass and landscaping elements to have the new roadway blend into the existing landscape.

b. Indicate the effects the project would have on the viewer groups:

All viewer groups that have a view of and a view from the facility will benefit from the additional aesthetics in the proposed action that are currently not present with the existing interchange.

4. Mitigation:

a. Have aesthetic commitments been made?

☐ No

☒ Yes - Discuss:

Specific aesthetic commitments will be included as part of this study. CSD elements will be discussed with local officials, municipalities, and the public when the project is scheduled for final design/construction. CSD elements have not been determined yet for this project.

WETLANDS EVALUATION
(9/2013)

Wisconsin Department of Transportation

Factor Sheet C-1

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Describe Wetlands:

	Wetland 1		Wetland 2		Wetland 3	
Name (if known) or wetland number[1]	R-30		R-31			
County	Rock		Rock			
Location (Section-Township-Range)	S21-T1N-R13E		S21-T1N-R13E			
Location (Latitude)	42° 32’ 2.40”		42° 31’ 37.20”			
Location (Longitude)	-88° 57’ 25.20”		-88° 58’ 44.40”			
Location Map	See Question 3		See Question 3		See Exhibit____	
Wetland Type(s)[2]	SM		M			
Wetland Loss	Acres 0		Acres 0.6		Acres ___	
Wetland is: (Check all that apply)[3]	Yes	No	Yes	No	Yes	No
• **Isolated from stream, lake or other surface water body**	X		X			
• **Not contiguous (in contact with) a stream, lake, or other water body, but within 100-year floodplain**		X		X		
• **If adjacent or contiguous, identify stream, lake or water body**	N/A		N/A			

[1]Use wetland numbering from the project wetland delineation report.
[2]Use wetland types as specified in the “*WisDOT FDM 24-5 Attachment 10.2 Wetland Type Correspondence Table”*
[3]If wetland is contiguous to a stream, complete Factor Sheet C-2, Rivers, Streams and Floodplains Impact Evaluation. If wetland is contiguous to a lake or other water body, complete Factor Sheet C-3, Lake or Water Body Impact Evaluation.

2. Are any impacted wetlands considered “wetlands of special status” per WisDOT Wetland Mitigation Banking Technical Guideline, page 10 (6 categories)?

☒ No
☐ Yes:
- ☐ Advanced Identification Program (ADID) Wetlands
- ☐ Public or private expenditure has been made to restore, protect, or ecologically manage the wetland on either public or private land
- ☐ Other – Describe: _____

3. Describe proposed work in the wetland(s), e.g., excavation, fill, marsh disposal, other:

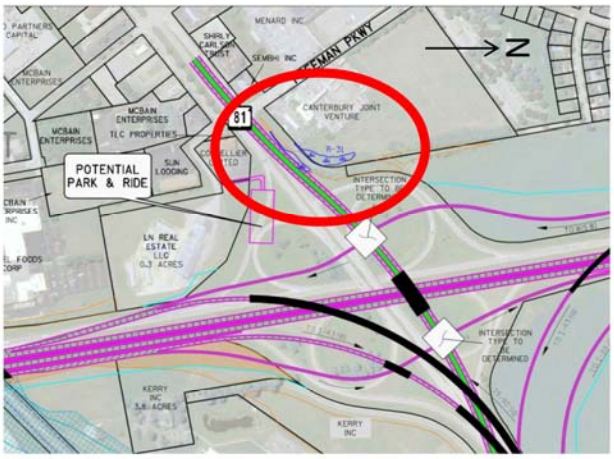
There are two wetlands located within the project area are identified as R-30 and R-31. Figure 1 below shows the location of the two wetlands. The following paragraphs describe the type of work that will occur near each wetland area.

- Wetland R-30 (South of existing Gateway Boulevard): This wetland is a designed detention basin for Gateway Boulevard. It is anticipated not to be impacted in the construction of the proposed action. The extension of WIS 81/Milwaukee will connect into the existing Gateway Boulevard prior to reaching R-30. Therefore this designed detention basin is anticipated to be avoided.

- Wetland R-31 (Northwest quadrant of the I-43 interchange): This wetland will be impacted from the realignment of WIS 81/Milwaukee Road to provide better construction staging and remove and extra curve along I-39/90. The proposed action will extend WIS 81/Milwaukee Road to the County X/Hart Road interchange. The roadway will be expanded from its current width to provide bicycle and pedestrian accommodations. The re-alignment will result in placing fill in this wetland.

Figure 1
Wetland Location Map

Wetland R-31



- Size – 0.59 acres
- Wet Meadow
- Troxel silt loam, 0 to 3 percent slopes
- Wetland Functional Value – Low

Wetland R-30

- Size – 0.18 acres
- Shallow Marsh
- Mahalasville silt loam
- Wetland Functional Value – Low

4. List any observed or expected waterfowl and wildlife inhabiting or dependent upon the wetland: (List should include permanent, migratory and seasonal residents).

No waterfowl or wildlife was observed on site during the field reconnaissance. Wildlife that may be present includes deer, turtles, frogs, waterfowl in open areas, as well as various song birds common to the area.

5. Federal Highway Administration (FHWA) Wetland Policy:

☐ Not Applicable - Explain

☐ Individual Wetland Finding Required - Summarize why there are no practicable alternatives to the use of the wetland.

☒ Statewide Wetland Finding: **NOTE: All three boxes below must be checked for the Statewide Wetland Finding to apply.**

- ☒ Project is either a bridge replacement or other reconstruction within 0.3 mile of the existing location.
- ☒ The project requires the use of 7.4 acres or less of wetlands.
- ☒ The project has been coordinated with the DNR and there have been no significant concerns expressed over the proposed use of the wetlands.

6. Erosion control or storm water management practices which will be used to protect the wetland are indicated on form: (Check all that apply)

- ☒ Factor Sheet D-6, Erosion Control Evaluation.
- ☒ Factor Sheet D-5, Stormwater Evaluation.
- ☐ Neither Factor Sheet - Briefly describe measures to be used

7. U S Army Corps of Engineers (USACE) Jurisdiction - Section 404 Permit (Clean Water Act)

☐ Not Applicable - No fill to be placed in wetlands or wetlands are not under USACE jurisdiction.

☒ Applicable - Fill will be placed in wetlands under the jurisdiction of the USACE.
Indicate area of wetlands filled: 0.59 Acres
Type of 404 permit anticipated:
☐ Individual Section 404 Permit required.
☒ General Permit (GP) or Letter Of Permission (LOP) required to satisfy Section 404 Compliance.

Indicate which GP or LOP is required:
☐ **Non-Reporting GP** [GP-002-WI (*expires 5/31/16*) or GP-004-WI (*expires 12/31/17*)]
☒ **Reporting GP** [GP-002-WI, GP-003-WI (*expires12/31/17*), or GP-004-WI]
☐ **Letter of Permission** [LOP-06-WI (*in effect 4/17/06, no expiration date*)]
☐ **Programmatic GP** [Applies to projects not covered under the DOT/DNR Cooperative Agreement]

8. Wisconsin Department of Natural Resources Coordination - Section 401 Water Quality Certification
☒ DNR has provided concurrence on the project wetland delineation. Received on: June 18, 2014
☐ Other- Explain

9. Section 10 Waters (Rivers and Harbors Act). For navigable waters of the United States (Section 10) indicate which 404 permit is required:
☒ No Section 10 Waters
☐ Section 10 Waters
☐ **Reporting GP** [GP-003-WI (*expires12/31/17*)]
☐ **Reporting GP** [GP-004-WI (*expires 12/31/17*)]

Indicate whether Pre-Construction Notification (PCN) to the USACE is:
☒ Not applicable.
☐ Required: Submitted on: (Date)

Status of PCN
USACE has made the following determination on: (Date)

USACE is in the process of review, anticipated date of determination is: (Date)

10. Wetland Avoidance and Impact Minimization: [Note: Required before compensation is acceptable]
A. Wetland Avoidance:
1. Describe methods used to avoid the use of wetlands, such as using a lower level of improvement or placing the roadway on new location, etc.:

The roadway improvements for the interchange could avoid impacts to the wetlands if the no build or 2A alternative were selected as the preferred alternative. The no build alternative was eliminated from further consideration because it does not meet the purpose and need for this project. The 2A alternative was not selected because it has a greater overall right of way and agricultural impact compared to the 2A modified alternative.

Wetland R-30 was avoided by design.

2. Indicate the total area of wetlands avoided:
Acres: 0.18 (wetland R-30)

B. Minimize the amount of wetlands affected:

1. Describe methods used to minimize the use of wetlands, such as increasing side slopes or use of retaining walls or beam guard, equalizer pipes, upland disposal of hydric soils, etc.:

   The new roadway extension of WIS 81/Milwaukee Road design will impact Wetland R-31. Minimizing techniques includes using steeper slopes outside clear zone to minimize fill of wetland.

2. Indicate the total area of wetlands saved through minimization:
   Acres:

   It will not be known until final design has been completed to the amount of wetland impact that will be minimized by steepening the side slopes. The total wetland area is small (0.59 acres), and is anticipated to not be viable to function as a wetland if majority of the wetland is required to be filled.

11. Compensation for Unavoidable Wetland Loss:

According to Section 404(b)(1), of the Clean Water Act, wetland compensatory mitigation procedures and sequencing will conform to the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA) joint rule on Compensatory Mitigation for Losses of Aquatic Resources (33 CFR Parts 325 and 332; and 40 CFR Part 230 - dated April 10, 2008). Compensatory mitigation will be consistent with amendments to the Cooperative Agreement between DNR and WisDOT on compensatory mitigation for unavoidable wetland losses (July 2012), and the WisDOT Interagency Coordination Agreement and Wetland Mitigation Banking Technical Guidelines with DNR, USACE, EPA, USFWS and FHWA (March 2002).

	Type	Acre(s) Loss	Ratio	Compensation Type and Acreage	
				On-site	DOT Mitigation Bank site
RPF(N)	Riparian wetland (wooded)	NA	NA	Due to the small wetland that is being impacted by this project, it has been agreed upon by WisDOT and WDNR to mitigate the impact at a 1:1 ratio by debiting the 0.59 acres to WisDOT's World Dairy Center Wetland Mitigation Bank Site.	
RPF(D)	Degraded riparian wetland (wooded)	NA	NA		
RPE(N)	Riparian wetland (emergent)	NA	NA		
RPE(D)	Degraded riparian wetland (emergent)	NA	NA		
M(N)	Wet and sedge meadows, wet prairie, vernal pools, fens	0.59	1:1		
M(D)	Degraded meadow	NA	NA		
SM	Shallow marsh	NA	NA		
DM	Deep marsh	NA	NA		
AB(N)	Aquatic bed	NA	NA		
AB(D)	Degraded aquatic bed	NA	NA		
SS	Shrub Swamp, shrub carr, alder thicket	NA	NA		
WS(N)	Wooded swamp	NA	NA		
WS(D)	Degraded wooded swamp	NA	NA		
Bog	Open and forested bogs	NA	NA		

D = Degraded
N = Non-degraded

12. If compensation is not possible within the drainage area and floristic province thru the use of the DOT mitigation bank, explain why and describe how a search for an on-site compensation site was conducted:

A site search was not conducted because the wetland impact is a total of 0.59 acres. It is anticipated that the entire wetland would need to be filled and would not be viable to function as a wetland. Replacing this amount to a local wetland was not beneficial and therefore this wetland would be debited at the World Dairy Center Wetland Mitigation Bank Site.

13. Summarize the coordination with other agencies regarding the compensation for unavoidable wetland losses. Attach appropriate correspondence.

Measures which will be taken during final design to minimize wetland impacts include the following:

- Water quality impacts from silt and sedimentation will be minimized through the strict adherence to erosion control measures as required by the WisDOT *Specifications for Road and Bridge Construction.*
- Additional measures which will be considered include use of steeper embankment slopes and use of retaining walls.

To compensate for unavoidable wetland impacts from the project, mitigation measures will be employed in accordance with requirements of Section 404 of the Clean Water Act and the July 20, 1993 Interagency Cooperative Agreement between WisDOT, WDNR, USACE, USEPA, USFWS, and FHWA.

Mitigation ratios will be in accordance with the "WisDOT Wetland Mitigation Banking Technical Guideline" which establishes a program for compensatory wetland mitigation banking for WisDOT projects. Wetlands impacts are expected to be replaced at a 1:1 ratio with additional or alternative arrangements according to the WisDOT/WDNR Cooperative Agreement. The mitigation bank site to be debited for this project is the World Dairy Center Wetland Mitigation Bank, located in Dane County, Wisconsin.

Coordination is on-going with the WDNR and they are aware of the designed detention basin R-30 and the wetland R-31 encroachment. WDNR concurred with the wetland boundaries that were provided in the Wetland Delineation Report. See **Appendix 13** for WDNR coordination.

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

WETLAND LOCATIONS

CITY OF BELOIT

MILWAUKEE ROAD

81

FREEMAN PKWY

E. HART RD

N

R-31
0.6 Acres

39

90

CRANSTON RD

S3

S2

TRIBUTARY TO SPRING BROOK (S2)

KERRY INGREDIENTS & FLAVOURS

MILLINGTON ROAD

WIS 81/MILWAUKEE ROAD EXTENSION

SPRING BROOK (S3)

S3

CANADIAN PACIFIC RAILROAD

GATEWAY BLVD

R-30
No Impacts

43

E. HART RD

COUNTY X

SCALE 0 500' 1000'

LEGEND

- WETLANDS
- WETLAND IMPACTS
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- FLOODPLAIN
- FLOOD STORAGE
- STORMWATER FEATURE
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES

RIVERS, STREAMS AND FLOODPLAINS EVALUATION

Wisconsin Department of Transportation

Factor Sheet C-2

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. **Stream Name: Spring Brook (S29 T1N R13E and S21 T1N R13E) crosses project area twice**
   (see **Appendix 7** label S3)

2. **Stream Type: (Indicate Trout Stream Class, if known)**
   - ☐ Unknown
   - ☒ Warm water
   - ☐ Cold water
     If trout stream, identify trout stream classification: _____
   - ☐ Wild and Scenic River

3. **Size of Upstream Watershed Area: (Square miles or acres)**
   Spring Brook is located in the Turtle Creek Watershed in the Lower Rock River Basin. The Turtle Creek Watershed is 184,607 acres (288 square miles).

4. **Stream flow characteristics:**
   - ☒ Permanent Flow (year-round)
   - ☐ Temporary Flow (dry part of year)

5. **Stream Characteristics:**
   A. Substrate:
      1. ☐ Sand
      2. ☒ Silt
      3. ☐ Clay
      4. ☒ Cobbles
      5. ☐ Other-describe:

   B. Average Water Depth: _____1.25 ft____

   C. Vegetation in Stream
      - ☒ Absent
      - ☐ Present - If known describe:

   D. Identify Aquatic Species Present:
      No species were identified during the August 20 & 21, 2013 on-site field surveys. However, the waterway does support fish and other aquatic life.

   E. If water quality data is available, include this information:

      Water quality data was recorded in 2006 by the University of Wisconsin-Stevens Point at the Spring Brook - Walker Rd (Sb-2) station. The station is located off of Walker Road, approximately 1.5 miles east of where Spring Brook is located within the project area (east of IH-39, west of Town Hall Road and south of IH-43). The 2006 results indicate that Spring Brook has a moderate biochemical oxygen demand, a total phosphorus value higher than NR 102 standards, and tested positive for fecal coliform and E Coli.

      Water quality data was also recorded in 2003 by the University of Wisconsin-Stevens Point at the Spring Brook - Walker Rd (Sb-2) station. The study looked at insect taxa to assess pollution. Insects were surveyed in the waterway by Sb-2 and were identified so that a tolerance value could be assigned to each taxa using the Hilsenhoff Biotic Index (HBI) survey method. The tolerance values provide a measure of the sensitivity of aquatic organisms to human caused disturbance (i.e. pollution) and have been used as a tool for assessing the biological condition of streams and rivers. The HBI uses a scale of 0 to 10 for pollution tolerance values to assess pollution

in waterways. The Mean Pollution Tolerance Value associated with this stretch of the waterway was 5.1 in 2003. A result between 5.01 and 5.75 indicates fairly substantial pollution is likely.

In 2002 the University of Wisconsin-Stevens Point assessed water quality at the Spring Brook - Spring Brook at Guftafson Road station. This station is approximately 2.7 miles east of where Spring Brook is located within the project area (east of IH-39, west of Town Hall Road and south of IH-43). The study looked at insect taxa to assess pollution. The results indicated that very substantial pollution is likely in the Spring Brook River.

The water quality data can be obtained by opening the Wisconsin Department of Natural Resources Surface Water Data Viewer and turning on the Monitoring Station Points layer. Navigation to the station points referenced above will allow for detailed review of the monitoring data.

F. Is this river or stream on the WDNR's "Impaired Waters" list?
- ☒ No
- ☐ Yes - List: _____

6. If bridge or box culvert replacement, are migratory bird nests present?
- ☐ Not Applicable
- ☒ None identified
- ☐ Yes – Identify Bird Species present
  Estimated number of nests is:

7. Is a Fish & Wildlife Depredation Permit required to remove swallow nests?
- ☒ Not Applicable
- ☐ Yes
- ☐ No - Describe mitigation measures:

8. Describe land adjacent to stream*:*

The first location is along the south end of the project area underneath the railroad bridge crossing over I-39/90. This stream is labeled as S2 in **Appendix 7**. The land adjacent to this portion of the stream is old field, railroad corridor, and prairie. The second location is along the east end of the project area next to Millington Road. This stream is labeled as S3 in **Appendix 7**. The land adjacent to this portion of the stream includes forested upland habitat to the north and old field habitat to the south.

9. Identify upstream or downstream dischargers or receivers (if any) within 0.8 kilometers (1/2 mile) of the project site:

Waterway 2 (see **Appendix 7** label S2) within the project area limits is a perennial tributary to Spring Brook that crosses under I-39/90 through culverts north of Cranston Road.

10. Describe proposed work in, over, or adjacent to stream. Indicate whether the work is within the 100-year floodplain and whether it is a crossing or a longitudinal encroachment:

Floodplain
New roadway improvements will impact 1.9 acres of the area's 100-year floodplain. The impacts are along the upstream side of the Spring Brook crossing at I-39/90.

Flood Storage
A Flood Storage District (FSD) delineates that portion of the floodplain where storage of floodwaters has been taken into account and is relied upon to reduce the regional flood discharge. The district protects the flood storage areas and assures that any development in the storage areas will not decrease the effective flood storage capacity which would cause higher flood elevations.

No development will be allowed which removes flood storage volume unless an equal volume of storage as defined by the pre-development ground surface and the regional flood elevation shall be provided in the immediate area of the proposed development to compensate for the volume of storage which is lost, (compensatory storage). Excavation below the groundwater table is not considered to provide an equal volume of storage.

For this project, the proposed improvements will impact 9.6 acre-feet of flood storage. The impact will be mitigated by creating an equal amount of flood storage volume within the new interchange area.

11. Discuss the effects of any backwater which would be created by the proposed action. Indicate whether the proposed activities would be in compliance with NR 116 by creating 0.01 ft. backwater or less:

The proposed activities will be in compliance with NR 116 by creating 0.01 ft backwater or less. The backwater is anticipated not to impact the land adjacent to the stream. If the backwater is unable to be less than 0.01 ft proper mitigation will be used to decrease floodplain impacts. The mitigation of the flood storage district will mimic existing conditions. Mitigation measures are anticipated not to change base flood elevations (BFEs). Floodplain modifications will occur at the Spring Brook Bridge over I-39/90; no impacts are expected to BFEs.

12. Describe and provide the results of coordination with any floodplain zoning authority:

Floodplain
Information was provided from the city of Beloit's city engineer in reference to the Kerry Letter of Map Revision (LOMR) and the flood mapping. This information helped determine the updated floodplain boundary that has an effective date of April 1, 2014. Coordination is on-going with the WDNR and they are aware of floodplain encroachment in the southeast quadrant of the interchange.

Flood Storage
An agency coordination meeting discussing the flood storage districts was held on August 26, 2014. Attendees included both WDNR and WisDOT. Future flood storage district mapping is planned to be effective in 2015. See **Appendix 13** for WDNR coordination and meeting minutes from meeting on August 26, 2014.

13. Would the proposal or any changes in the design flood, or backwater cause any of the following impacts?

- ☒ No impacts would occur.
- ☐ Significant interruption or termination of emergency vehicle service or a community's only evacuation route.
- ☐ Significant flooding with a potential for property loss and a hazard to life.
- ☐ Significant impacts on natural floodplain values such as flood storage, fish or wildlife habitat, open space, aesthetics, etc.

Floodplain
No impacts will occur.

Flood Storage
The design team will provide compensatory storage near any fill areas that impact floodplain storage. If necessary, the compensatory storage areas will be hydraulically accessed through the use of equalizer pipes beneath the highway fill. Another option is the use of the interchange infields for storage mitigation and use sandy soils to release the water. Since the compensatory storage volume of 9.6 acre-feet equals the volume of storage lost due to the fill in the existing flood storage areas, no impacts to these areas will occur.

14. Discuss existing or planned floodplain use and briefly summarize the project's effects on that use:

Floodplain
New roadway improvements at the I-39/90 crossing of Spring Brook will impact 1.9 acres of the 100-year floodplain. Through highway design, the proposed improvements will not impact the floodplain boundaries in this area.

Flood Storage
9.6 acre-feet of flood storage impacts will occur along the proposed WIS 81/Milwaukee Road extension between the I-43 and County X/Hart Road interchanges. Through highway design, 9.6 acre-feet of compensatory flood storage will be incorporated into the proposed interchange. Therefore, the project will not affect the overall flood storage capacity in this area.

15. Discuss probable direct impacts to water quality within the floodplain, both during and after construction. Include the probable effects on plants, animals, and fish inhabiting or dependent upon the stream:

Roadway construction has the potential to affect water quality due to erosion, sedimentation, and stormwater runoff. In addition, existing roadways have the potential to reduce water quality due to the runoff of salt and other particles from the roadway. Over the long term, the proposed action is not anticipated to cause continued direct impacts to

water quality. Standard erosion control measures will be implemented during construction to minimize short-term adverse effects to the waterway. Filter strips are planned to be used on the back slopes along the south side of WIS 81/Milwaukee Road. The remaining drainage is proposed to be treated with stormwater Best Management Practices (BMPs) (infiltration basins, grass swales, and/or filter strips). These measures will be determined in the design stage.

16. Are measures proposed to enhance beneficial effects?

☒ No
☐ Yes. Describe: _____

There will be no measures proposed to enhance or decrease beneficial effects. Compensatory storage will be used to maintain floodplain storage to preserve existing floodplain physical characteristics. Five ponds will be constructed as shown in orange on the Preferred Alternative map. See **Appendix 7**.

RIVERS, STREAMS AND FLOODPLAINS EVALUATION

Wisconsin Department of Transportation

Factor Sheet C-2

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. **Stream Name: Unnamed tributary to Spring Brook (S29 T1N R13E)** (see **Appendix 7** label S2)

2. Stream Type: (Indicate Trout Stream Class, if known)
- ☒ Unknown
- ☐ Warm water
- ☐ Cold water
  If trout stream, identify trout stream classification: _____
- ☐ Wild and Scenic River

3. Size of Upstream Watershed Area: (Square miles or acres)
The unnamed tributary to Spring Brook is located in the Turtle Creek Watershed in the Lower Rock River Basin. The Turtle Creek Watershed is 184,607 acres (288 square miles).

4. Stream flow characteristics:
- ☐ Permanent Flow (year-round)
- ☒ Temporary Flow (dry part of year)

5. Stream Characteristics:

A. Substrate:
1. ☐ Sand
2. ☐ Silt
3. ☐ Clay
4. ☒ Cobbles
5. ☐ Other-describe:

B. Average Water Depth: _____1.25 ft____

C. Vegetation in Stream
- ☐ Absent
- ☒ Present - If known describe: Reed canary grass and sedge species were documented within the waterway bed (no water at the time of survey).

D. Identify Aquatic Species Present:
No species were identified during the on-site field surveys (August 20 & 21, 2013) as the stream was dry. However, the waterway could support fish and other aquatic life when the waterway is full.

E. If water quality data is available, include this information:
No water quality data is available for the unnamed tributary to Spring Brook.

F. Is this river or stream on the WDNR's "Impaired Waters" list?
- ☒ No
- ☐ Yes - List: _____

6. If bridge or box culvert replacement, are migratory bird nests present?
- ☐ Not Applicable
- ☒ None identified
- ☐ Yes – Identify Bird Species present
  Estimated number of nests is:

7. Is a Fish & Wildlife Depredation Permit required to remove swallow nests?
- ☒ Not Applicable
- ☐ Yes

☐ No - Describe mitigation measures:

8. Describe land adjacent to stream:

Waterway 2 (see **Appendix 7** label S2) within the project area limits is an unnamed tributary to Spring Brook that crosses under I-39/90 through culverts north of Cranston Road in the city of Beloit. The land adjacent to this portion of the stream is old field, railroad corridor, and prairie.

9. Identify upstream or downstream dischargers or receivers (if any) within 0.8 kilometers (1/2 mile) of the project site:

Spring Brook (Waterway S3, **Appendix 7**) is a receiving waterway.

10. Describe proposed work in, over, or adjacent to stream. Indicate whether the work is within the 100-year floodplain and whether it is a crossing or a longitudinal encroachment:

The work at the Waterway 2 location is not within the 100-year floodplain. New roadway improvements will not be constructed within the 100-year floodplain.

11. Discuss the effects of any backwater which would be created by the proposed action. Indicate whether the proposed activities would be in compliance with NR 116 by creating 0.01 ft. backwater or less:

N/A Tributary is not within the mapped floodplain.

12. Describe and provide the results of coordination with any floodplain zoning authority:

N/A Tributary is not within the mapped floodplain.

13. Would the proposal or any changes in the design flood, or backwater cause any of the following impacts?

☒ No impacts would occur.
☐ Significant interruption or termination of emergency vehicle service or a community's only evacuation route.
☐ Significant flooding with a potential for property loss and a hazard to life.
☐ Significant impacts on natural floodplain values such as flood storage, fish or wildlife habitat, open space, aesthetics, etc.

N/A Tributary is not within the mapped floodplain.

14. Discuss existing or planned floodplain use and briefly summarize the project's effects on that use:

N/A Tributary is not within the mapped floodplain.

15. Discuss probable direct impacts to water quality within the floodplain, both during and after construction. Include the probable effects on plants, animals, and fish inhabiting or dependent upon the stream:

N/A Tributary is not within the mapped floodplain.

16. Are measures proposed to enhance beneficial effects?

☒ No
☐ Yes. Describe: _____

N/A Tributary is not within the mapped floodplain.

CONSTRUCTION STAGE SOUND QUALITY EVALUATION

Wisconsin Department of Transportation

Factor Sheet D-2

Alternative Modified 2A	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Identify and describe residences, schools, libraries, or other noise sensitive areas near the proposed action and which will be in use during construction of the proposed action. Include the number of persons potentially affected:

The noise sensitive areas that may be affected during construction of the proposed action include the Gonstead Chiropractic Clinic and approximately 25 families.

2. Describe the types of construction equipment to be used on the project. Discuss the expected severity of noise levels including the frequency and duration of any anticipated high noise levels:

The noise generated by construction equipment will vary greatly, depending on equipment type/model/make, duration of operation and specific type of work effort. However, typical noise levels may occur in the 67 to 107 dBA range at a distance of 50 feet. See Table 1 for typical noise generated volumes.

3. Describe the construction stage noise abatement measures to minimize identified adverse noise effects. Check all that apply:

- ☒ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply.
- ☐ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply with the exception that the hours of operation requiring the engineer's written approval for operations will be changed to _____ P.M. until _____A.M.
- ☐ WisDOT Standard Specifications 107.8(6) and 108.7.1 will apply with the exception that the hours of operation requiring the engineer's written approval for operations will be changed to _____ P.M. until _____A.M.
- ☐ Special construction stage noise abatement measures will be required. Describe:

Table 1 Construction Equipment Sound Levels						
	Sound Level (dBA) at 50 Feet					
	60	70	80	90	100	110
Equipment Powered by Internal Combustion Engines						
Earth Moving						
Compactors (Rollers)		-----				
Front Loaders		----------				
Backhoes		----------				
Tractors		----------				
Scrapers, Graders			--------			
Pavers			----			
Trucks			----------			
Materials Handling						
Concrete Mixers		----------				
Concrete Pumps			----			
Cranes (Movable)		----------				
Cranes (Derrick)			----			
Stationary						
Pumps	----					
Generators		----------				
Compressors		----------				
Impact Equipment						
Pneumatic Wrenches			-------			
Jack Hammers & Rock Drills			----------			
Impact Pile Drivers				----------		
Other						
Vibrator	----------					
Saws		----------				
SOURCE: Figure 2-36, Report to the President and Congress on Noise						
Prepared by the U.S. EPA, February 1972						

TRAFFIC NOISE EVALUATION

Wisconsin Department of Transportation

Factor Sheet D-3

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None Identified	

1. Need for Noise Analysis:

A. Is the proposed action considered a Type I project? (A Type I project is defined as a project that involves construction of a roadway on new location or the physical alteration of an existing highway which substantially changes either the horizontal or vertical alignment or increases the number of through-traffic lanes).

☐ No – Complete only Factor Sheet D-2, Construction Stage Sound Quality Impact Evaluation.

☒ Yes – Complete Factor Sheet D-2, Construction Stage Sound Quality Impact Evaluation, and the rest of this sheet.

2. Traffic Data:

A. Indicate whether traffic volumes for sound prediction are different from the Design Hourly Volume (DHV) on Basic Sheet 6, Traffic Summary Matrix*:*

☒ No

☐ Yes – Indicate volumes and explain why they were used:

Automobiles	Veh/hr
Trucks	Veh/hr
Or Percentage (T)	%

B. Identify and describe the noise analysis technique or program used to identify existing and future sound levels: (See attached receptor location map as Figure 1).

Federal Highway Administration (FHWA) Traffic Noise Model 2.5 (TNM 2.5) was used for this noise analysis. TNM 2.5 is FHWA's computer program for predicting and analyzing highway traffic noise. TNM 2.5 computes highway traffic noise at chosen receiver locations near to the noise source and aids in noise barrier analysis.

Existing and future noise levels along IH 39/90 were modeled with TNM 2.5. Future noise levels are based on design year 2040 forecasted traffic volumes.

C. Identify sensitive receptors, e.g., schools, libraries, hospitals, residences, etc. potentially affected by traffic sound: (See attached receptor location map – Figure 1).

Receiver number M6 represents the Gonstead Chiropractic Clinic located in a historical building. Receivers M4, 10, and 11 represent 25 residences.

D. If this proposal is implemented will future sound levels produce a noise impact?

☒ No

☐ Yes - The impact will occur because:

- ☐ The Noise Abatement Criteria (NAC) is approached (1 dBA less than the NAC) or exceeded.
- ☐ Existing sound levels will increase by 15 dBA or more.

E. Will traffic noise abatement measures be implemented?

☒ Not applicable – Traffic noise impacts will not occur.

☐ No – Traffic noise abatement is not reasonable or feasible (explain why). In areas currently undeveloped, local units of government shall be notified of predicted sound levels for land use planning purposes. **A COPY OF THIS WRITTEN NOTIFICATION SHALL BE INCLUDED WITH THE FINAL ENVIRONMENTAL DOCUMENT.**

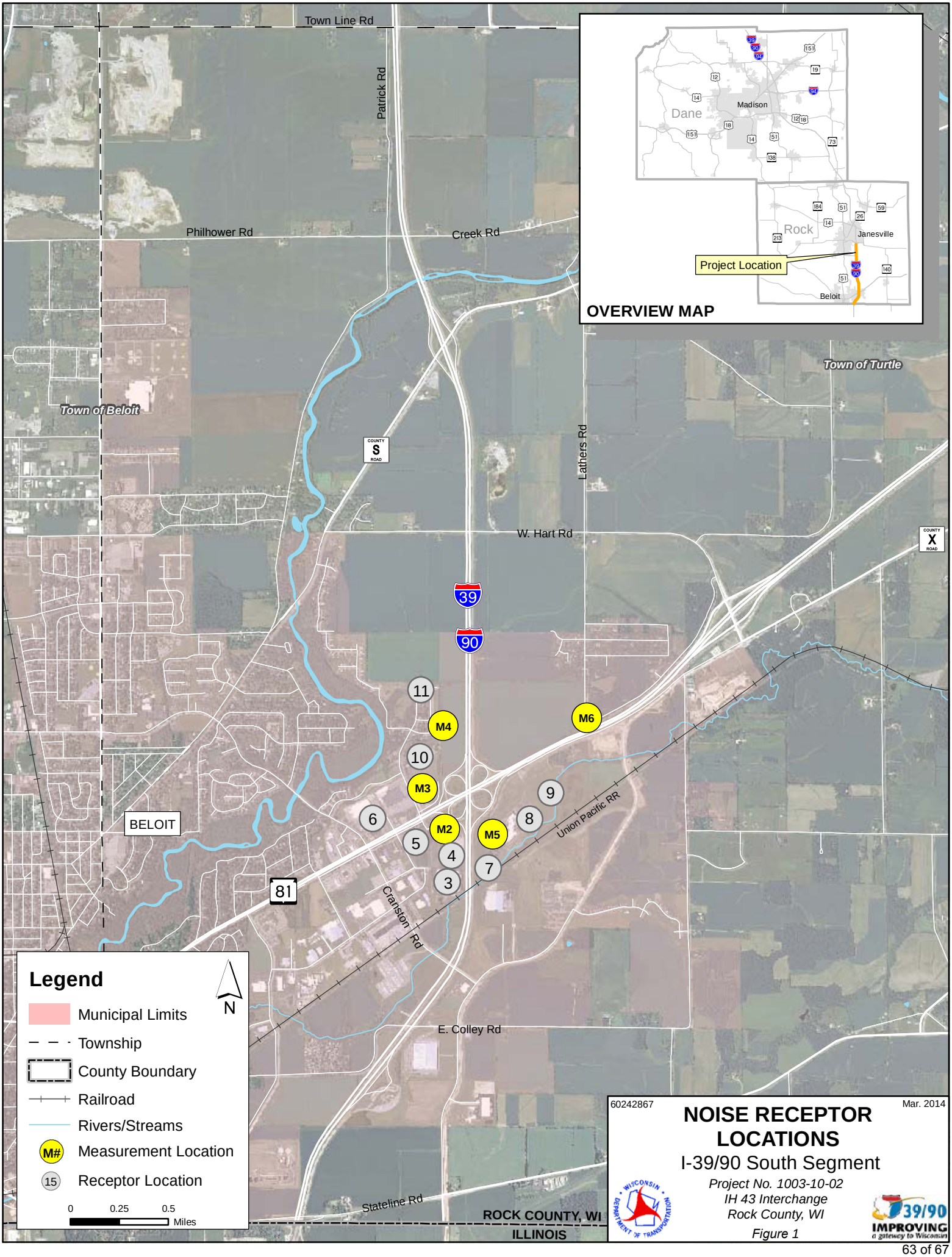
☐ Yes – Traffic noise abatement has been determined to be feasible and reasonable. Describe any traffic noise abatement measures which are proposed to be implemented. Explain how it will be determined whether or not those measures will be implemented:

Noise receptor locations are identified in the following table.

Although many of the receptor locations are closer to the centerline of the near lane of the proposed interchange configuration than they were to that of the existing interchange configuration, the increase in elevation of the proposed configuration caused future sound levels to decrease from existing in many cases. Minor increases occurred at two locations: at the Kerry Ingredients property (Receptors 8 and 9) and at the Gonstead Chiropractic Clinic (Receptor M6).

			Sound Level L_{eq}[1] (dBA)			Impact Evaluation		
Receptor Location or Site Identification (See attached map)	Distance from C/L of Near Lane to Receptor in feet (ft.) (existing OR future / existing)	Number of Families or People Typical of this Receptor Site	Noise Abatement Criteria [2] (NAC)	Future Sound Level	Existing Sound Level	Difference in Future and Existing Sound Levels (Col. e minus Col. f)	Difference in Future Sound Levels and Noise Abatement Criteria (Col. e minus Col. d)	Impact[3] or No Impact
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
M2	645 / 764	commercial	71	59	62	-3	-12	N
M3	788 / 1184	commercial	71	55	57	-2	-16	N
M4	647 / 830	2	66	56	60	-4	-10	N
M5	480 / 794	commercial	71	63	62	1	-8	N
M6	269	commercial	71	68	64	4	-3	N
3	320	commercial	71	68	69	-1	-3	N
4	544 / 591	commercial	71	63	63	0	-8	N
5	1142 / 1253	commercial	71	58	61	-3	-13	N
6	1563 / 1814	commercial	71	54	56	-2	-17	N
7	364 / 475	commercial	71	67	67	0	-4	N
8	945 / 1392	commercial	71	58	56	2	-13	N
9	844 / 1046	recreation area[4]	66	56	53	3	-10	N
10	753 / 1025	20	66	55	59	-4	-11	N
11	1007 / 1078	3	66	56	58	-2	-10	N

[1] Use whole numbers only.
[2] Insert the actual Noise Abatement Criteria from Wisconsin Administrative Code, Chapter Trans. 405.04, Table 1.
[3] An impact occurs when future sound levels exceed existing sound levels by 15 dB or more, **or**, future sound levels approach or exceed the Noise Abatement Criteria ("approach" is defined as 1 dB less than the Noise Abatement Criteria, therefore an impact occurs when Column (h) is –1 db or greater). I = Impact, N = No Impact.
[4] Private recreational area of the Kerry Company


Town Line Rd
Patrick Rd
Philhower Rd
Creek Rd
Town of Beloit
Town of Turtle
Lathers Rd
W. Hart Rd
COUNTY S ROAD
COUNTY X ROAD
39
90
11
M4
10
M3
6
M2
5
4
3
M5
7
8
9
M6
Union Pacific RR
BELOIT
81
Cranston Rd
E. Colley Rd
Stateline Rd
ROCK COUNTY, WI
ILLINOIS
OVERVIEW MAP
Dane
Madison
Rock
Janesville
Beloit
Project Location
Legend
N
Municipal Limits
Township
County Boundary
Railroad
Rivers/Streams
M# Measurement Location
15 Receptor Location
0 0.25 0.5 Miles
60242867
Mar. 2014
NOISE RECEPTOR LOCATIONS
I-39/90 South Segment
Project No. 1003-10-02
IH 43 Interchange
Rock County, WI
Figure 1
WISCONSIN DEPARTMENT OF TRANSPORTATION
39/90 IMPROVING a gateway to Wisconsin

STORMWATER EVALUATION

Wisconsin Department of Transportation

Factor Sheet D-5

Alternative 2A Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Indicate whether the affected area may cause a discharge or will discharge to the waters of the state (Trans 401.03).

Special consideration should be given to areas that are sensitive to water quality degradation. Provide specific recommendations on the level of protection needed.

☐ No water special natural resources are affected by the alternative.
☒ Yes - Water special natural resources exist in the project area.
- ☒ River/stream
- ☒ Wetland
- ☐ Lake
- ☐ Endangered species habitat
- ☐ Other – Describe

_____

2. Indicate whether circumstances exist in the project vicinity that require additional or special consideration, such as an increase in peak flow, total suspended solids (TSS) or water volume.

☐ No additional or special circumstances are present.
☒ Yes - Additional or special circumstances exist. Indicate all that are present.

☐ Areas of groundwater discharge	☐ Areas of groundwater recharge
☐ Stream relocations	☐ Overland flow/runoff
☐ Long or steep cut or fill slopes	☐ High velocity flows
☐ Cold water stream	☐ Impaired waterway
☐ Large quantity flows	☐ Exceptional/outstanding resource waters
☐ Increased backwater	

☒ Other - Describe any unique, innovative, or atypical stormwater management measures to be used to manage additional or special circumstances.

Total Maximum Daily Load TMDLs developed for the Rock River basin require additional stormwater management practices to increase total suspended solids and total phosphorus removal rates. A TMDL determines the maximum amount of pollutant that a water body is capable of assimilating while continuing to meet the existing water quality standards. The reduction rates vary throughout the Rock River basin, and are described in the I-39/90 Corridor Design Manual, Chapter 19. This manual was developed from the FDM and WisDOT Regional and Central Office staff to document the design criteria established for I-39/90 corridor that should be used by all I-39/90 design staff involved in hydraulic analysis of bridges, culverts or storm sewers along the mainline, side roads, and at interchanges.

3. Describe the overall stormwater management strategy to minimize adverse effects and enhance beneficial effects.

The overall stormwater strategy for this project is to use the available land within the proposed right-of-way to provide stormwater treatment and conveyance. The strategies used to address the TRANS 401 requirements and the TMDL requirements for the Rock River drainage basin include grass swales parallel to the proposed highway where there is adequate room, grass filter strips along the highway embankments, and infiltration fields where practical and appropriate. Additional measures such as wet detention ponds will be considered where maintenance, right-of-way and airport proximity concerns allow.

4. Indicate how the stormwater management plan will be compatible with fulfilling Trans 401 requirements.

WisDOT will follow Wis. Adm. Code Trans 401 and the DNR/DOT Cooperative Agreement for post construction stormwater requirements and standards. Stormwater runoff from the proposed roadway improvements will meet the 40% Total Suspended Solids reductions for areas outside of Municipal Separate Storm Sewer System (MS4) areas in

the drainage basin. These reductions will be met through the design of vegetative swales and filter strips. Post construction peak flow rates typically will be the same or lower than preconstruction peak flow rates by increasing the time of concentration of the runoff coming from our facilities through the use of swale treatment. Areas of the corridor that are within MS4 areas, in the cities of Madison, Janesville and Beloit, must also conform to the requirements developed from the Rock River Basin TMDL. The TSS and total Phosphorus loadings developed for these areas will be reduced through the use of grass swales, filter strips (standard and enhanced), infiltration areas and other practices as appropriate.

5. Identify the stormwater management measures to be utilized.

- ☒ Swale treatment (parallel to flow) Trans 401.106(10)
- ☒ Vegetated filter strips (perpendicular to flow)
- ☐ Constructed storm water wetlands
- ☒ Buffer areas – Trans 401.106(6)
  Describe - if needed for floodplains
- ☐ In-line storm sewer treatment, such as catch basins, non-mechanical treatment systems.
- ☒ Detention/retention basins – Trans 401.106(6)(3)
- ☐ Distancing outfalls from waterway edge
- ☒ Infiltration – Trans 401.106(5)
- ☒ Other
  Enhanced filter strips

6. Indicate whether any Drainage District may be affected by the project.

- ☒ No - None identified
- ☐ Yes

  Has initial coordination with a drainage board been completed?
  - ☐ No - Explain _____
  - ☐ Yes - Discuss results –

7. Indicate whether the project is within WisDOT's Phase I or Phase II stormwater management areas.

Note: See Procedure 20-30-1, Figure 1, Attachment A4, the Cooperative Agreement between WisDOT and WisDNR. Contact Regional Stormwater/erosion Control Engineer if assistance in needed to complete the following:

- ☐ No - the project is outside of WisDOT's stormwater management area.
- ☒ Yes - The project affects one of the following and is regulated by a WPDES stormwater discharge permit, issued by the WisDNR:
  - ☐ A WisDOT storm sewer system, located within a municipality with a population greater than 100,000.
  - ☒ A WisDOT storm sewer system located within the area of a notified owner of a municipal separate storm sewer system.
  - ☒ An urbanized area, as defined by the U.S. Census Bureau, NR216.02(3).
  - ☐ A municipal separate storm sewer system serving a population less than 10,000.

8 Has the effect on downstream properties been considered?

- ☐ No
- ☒ Yes - Coordination is in process.

9. Are there any property acquisitions required for storm water management purposes?

- ☒ No
- ☐ Yes - Complete the following:
  - ☐ Safety measures, such as fencing are <u>not</u> needed for potential conflicts with existing and expected surrounding land use.
  - ☐ Safety measures <u>are</u> needed for potential conflicts with existing and expected surrounding land use. Describe:

EROSION CONTROL EVALUATION

Wisconsin Department of Transportation

Factor Sheet D-6

Alternative 2A, Modified	Total Length of Center Line of Existing Roadway – 4.6 miles Length of This Alternative – 4.6 miles
Preferred ☒ Yes ☐ No ☐ None identified	

1. Provide a brief description of existing and proposed slopes in the project area, both perpendicular and longitudinal to the project. Include both existing and proposed slope length, percent slope and soil types.

Existing: The existing side slope ratios within the project area vary from 2-foot horizontal:1-foot vertical behind beam guard to 6-foot horizontal:1-foot vertical within portions of the interstate clear zone. Fill areas within the existing cloverleaf interchange reach a maximum length of 50' (28' of fill) and fill areas approaching the Canadian Pacific Railroad crossing reach a maximum length of 65' (35' of fill). Both of these locations incur the steepest perpendicular slopes of 2-foot horizontal:1-foot vertical. There are no significant cut slopes. Longitudinal slopes are minimal with ditch grades less than 3%.

Proposed: The proposed side slope ratios along I-39 and I-43 will range between 4-foot horizontal:1-foot vertical and 6-foot horizontal:1-foot vertical within the 36' clear zone. Slopes outside of the clear zone will be no steeper than 3-foot horizontal:1-foot vertical with exceptions to those behind barrier or beam guard where the slopes will be no steeper than 2-foot horizontal:1-foot vertical. Fill slope lengths will vary, with a maximum of 80' (45' of fill) in length. Cut slopes will be limited to 3-foot horizontal:1-foot vertical and the lengths will vary to 50'. Longitudinal slopes will vary, up to a maximum of 5%.

Soil Types: The predominant soil type for the interchange area is Plano Silt Loam, Hydraulic Soils Classification B.

2. **Indicate all natural resources to be affected by the proposal that are sensitive to erosion, sedimentation, or waters of the state quality degradation and provide specific recommendations on the level of protection needed.**
   - ☐ No - there are no sensitive resources affected by the proposal.
   - ☒ Yes - Sensitive resources exist in or adjacent to the area affected by the project.
     - ☒ River/stream
     - ☐ Lake
     - ☒ Wetland
     - ☐ Endangered species habitat
     - ☐ Other - Describe _____

3. Are there circumstances requiring additional or special consideration?
- ☒ No - Additional or special circumstances are not present.
- ☐ Yes - Additional or special circumstances exist. Indicate all that are present.
  - ☐ Areas of groundwater discharge
  - ☐ Overland flow/runoff
  - ☐ Long or steep cut or fill slopes
  - ☐ Areas of groundwater recharge (fractured bedrock, wetlands, streams)
  - ☐ Other - Describe any unique or atypical erosion control measures to be used to manage additional or special circumstances_____

4. Describe overall erosion control strategy to minimize adverse effects and/or enhance beneficial effects.

Standard WisDOT erosion control methods will be used during construction as per WisDOT Standard Specifications for Highway and Structure Construction. Erosion and sediment control will be part of the project's design and construction as set forth in Wisconsin Administrative Code – Chapter TRANS 401 and the WisDOT/WDNR Cooperative Agreement. The erosion control plan and special specifications will be reviewed by WDNR prior to the 90% plan submittal as part of the 401 Water Quality Certification process. An Erosion Control Implementation Plan (ECIP) will be prepared by the contractor for review by the WDNR and for approval by WisDOT prior to construction. The erosion control plan will include, wherever practical, combinations of erosion control practices in series so that if one practice fails, the next practice downstream is in place to trap the sediment discharged from the first practice.

5. Erosion control measures reached consensus with the appropriate authorities as indicated below:

- ☒ WisDNR
- ☐ County Land Conservation Department
- ☐ American Indian Tribe
- ☐ US Army Corps of Engineers

Note: All erosion control measures (i.e., the Erosion Control Plan) shall be coordinated through the WisDOT-WisDNR liaison process and TRANS 401. WisDNR's concurrence is not forthcoming without an Erosion Control Plan. In addition, TRANS 401 requires the contractor to prepare an Erosion Control Implementation Plan (ECIP), which identifies timing and staging of the project's erosion control measures. The ECIP must be submitted to the WisDNR and to WisDOT 14 days prior to the preconstruction conference (Trans401.08(1)) and must be approved by WisDOT before implementation.

6. **Identify the temporary and permanent erosion control measures to be utilized on the project. Consult the FDM, Chapter 10, and the Products Acceptability List (PAL).**

- ☒ Minimize the amount of land exposed at one time
- ☒ Temporary seeding
- ☒ Silt fence
- ☒ Ditch checks
- ☒ Erosion or turf reinforcement mat
- ☒ Ditch or slope sodding
- ☒ Soil stabilizer
- ☒ Inlet protection
- ☐ Turbidity barriers
- ☐ Temporary settling basin
- ☒ Mulching
- ☒ Other - Describe _____
- ☒ Detention basin
- ☒ Vegetative swales
- ☐ Pave haul roads
- ☒ Dust abatement
- ☒ Rip rap
- ☒ Buffer strips
- ☐ Dewatering – Describe method
- ☐ Silt screen
- ☐ Temporary diversion channel
- ☒ Permanent seeding

APPENDIX A: WisDOT's Pre-Screening Worksheet for EA and ER Projects For Determining the Need to Conduct a *Detailed* Indirect Effects Analysis

Date: April 2014

This analysis was performed using a template provided by the Wisconsin Department of Transportation's Guidance for Conducting an Indirect Effects Analysis, Appendix A: Pre-Screening Worksheet for EA Projects for Determining the Need to Conduct a Detailed Indirect Effects Analysis. This template is found as Appendix A. Data for this analysis was gathered from comprehensive plans, the Wisconsin Department of Administration, U.S. Census Bureau and meetings with community officials.

1. Project Design Concepts and Scope
Do the project design concepts include any one of the following?

- Additional thru travel lanes (expansion)
- New alignment
- New and/or improved interchanges and access
- Bypass alternatives

The existing access controlled cloverleaf interchange will be replaced with a free-flow system interchange with an embedded diamond interchange.

The Preferred alternative enhances the local mobility to the Gateway Business Park area and maintains all other access at the system/service interchange. The new interchange will include extending WIS 81/Milwaukee Road from its current location in Beloit to connect with the I-43/County X/Hart Road interchange. This extension will provide local Beloit access to and from the business park near the current Millington Road/Gateway Boulevard intersection. See **Appendix 7, Preferred Alternative**.

2. Project Purpose and Need
Does the project purpose and need include:

- Economic development –in part or full (i.e. improved access to a planned industrial park, new interchange for a new warehouse operation)

The purpose and need of the project does not include economic development. However, by the product of the proposed action we will be providing better access to the Gateway Business Park with the extension of WIS 81/Milwaukee Road.

3. Project Type
What is the project document "type"?

- EIS project—a detailed indirect effects analysis is warranted.
- Many EA's will require a detailed indirect effects analysis (However, it also depends on the project design concepts and other factors noted here.)
- If a Categorical Exclusion (pER or ER) applies, a detailed assessment is not generally warranted, however documentation must be provided that addresses this determination including basic sheet information.

This project is an Environmental Assessment (EA).

4. Facility Function
What is the primary function of the existing facility? What is the proposed facility?

- Urban arterial
- Rural arterial

The primary function of the existing facility is a freeway for I-39/90 and I-43. The existing facility serves as a system/service interchange that connects two WisDOT backbone routes. The proposed facility will remain the same as a system/service interchange. However, it will provide a more direct local connection between Beloit and the Gateway Business Park via the extension of WIS 81/Milwaukee Road.

5. Project Location (Location can be a combination.)

- Urban (within an Metropolitan Planning Area)
- Suburban (part of larger metropolitan/regional area, may or may not be part of an metropolitan planning area)
- Small community (population under 5000)
- Rural with scattered development
- Rural, primarily farming/agricultural area

The project is located in the city of Beloit and the town of Turtle. The city of Beloit is considered an urban metropolitan area. The town of Turtle is considered rural, primarily farming/agricultural area with a population approximately at 2,500.

6. Improved travel times to an area or region

- Will the proposed project provide an improvement of 5 or more minutes? (Based on research, improvements in travel time can impact the attractiveness of an area for new development.)

The extension of WIS 81/Milwaukee Road to the County X/Hart Road interchange will improve time from the city of Beloit to the Gateway Business Park by providing a new intersection with Gateway Boulevard. The estimated time savings is between 3 and 4 minutes.

7. Land Use and Planning

- What are the existing land use types in project area?
- What do the local plans, neighborhood plans, and regional plans, indicate for future changes in land use?
- What types of permitted uses are indicated in the local zoning?
- Would the project potentially conflict with plans in the project area? (e.g., capacity expansion in areas in which agricultural preservation is important to local government(s)?)

The existing land use adjacent to the project in the city of Beloit includes commercial, agricultural, industrial, residential, and a business park. The existing land use adjacent to the project in the town of Turtle includes agricultural and commercial. The town of Turtle is located in the northeast quadrant of the interchange.

The city of Beloit future land use plan includes community commercial, a planned neighborhood, business park, and residential properties. There is no planned agricultural land in the future land use plan in the city of Beloit. The town of Turtle identifies additional rural residential in its future land use plans.

Beloit's future land use plan anticipates the development of the Gateway Business Park. Also, the northeast corner of the interchange is expected to change from agricultural land to commercial and a

planned neighborhood. In the southwest corner a new hotel is proposed to be built adjacent to the potential park and ride lot.

The proposed interchange would not have any conflicts with the plans in the project area. The city of Beloit has reached a resolution that approves the Alternative 2 option. They are in agreement with the improved local access from the extension of WIS 81/Milwaukee Road to the I-43/County X/Hart Road interchange.

See Appendix 10 for current and future lane use plans.

8. Population/Demographic Changes

- Have the population changes over past 5, 10 and 20 years been high, medium, low growth rate vs. state average over same period? (i.e. USDA defines high growth in rural areas as greater than annual population growth of 1.4 %.)
- What are the projections for the future for population? (Use Wisconsin DOA projections.)
- Have there been considerable changes for population demographics and employment over the past 10 – 20 or more years?

As the numbers in the table below indicate, there has been very little growth in the city of Beloit and town of Turtle between 1980 and 2010. Future growth is expected to be low, averaging less than 0.25% per year.

	1980	1990	2000	2010	Project 2040	% Population Change 1980-1990	% Population Change 1990-2000	% Population Change 2000-2007	% Population Change 2010-2040
City of Beloit	35,207	35,573	35,775	36,966	39,590	1.0	0.6	3.3	7.1
Town of Turtle	2,703	2,458	2,444	2,388	2,405	-9.1	-0.6	-2.3	0.7
Rock County	139,420	139,510	152,307	160,331	182,860	0.1	9.2	5.3	14.1
State of Wisconsin	4,705,642	4,891,769	5,363,715	5,686,986	6,491,635	4.0	9.6	6.0	14.1

Source: Wisconsin DOA, Census

9. Rate of Urbanization

Does the project study area contain proposed new developments?

- What are the main changes in developed area vs. undeveloped areas over past 5, 10 and 20 years?
- Have there been significant conversions of agricultural land uses to other land use types, such as residential or industrial?

The city of Beloit over the past 20 years has been continuing to expand and build the commercial area just west of the interchange. There has been some development in the Gateway Business Park, but it has not been substantial.

10. Public, State and/or Federal Agency Concerns

Have local officials, federal and/or state agencies, property owners, stakeholders or others raised concerns related to potential indirect effects from the project? (e.g., land use changes, “sprawl”, increase traffic, loss of farmland, etc.)

Adjacent property owners near the interchange voiced concern about the amount of local access to and from the business park. WisDOT reacted to their concerns during the alternatives development phase of the project and the recommended alternative now includes the WIS 81/Milwaukee Road extension which provides direct access into the park.

Appendix 1 – Project Termini Map

Project Termini Map

June 2014

Appendix 1

Project No. 1003-10-02
I-39: IL 75 - CTH S
I-43: Cranston Road - STH 140
Rock County, WI

39/90 IMPROVING a gateway to Wisconsin

0 2,000 4,000 Feet

N

East Limits
1003-10-02

North Limits
1003-10-02

West Limits
1003-10-02

South Limits
1003-10-02

Clinton

Beloit

Creek Rd

Hart Rd

Lathers Rd

Butterfly Rd

Clinic Rd

Canadian Pacific RR

Cranston Rd

E. Colley Rd

Wisconsin

Illinois

COUNTY S ROAD

COUNTY J ROAD

COUNTY X ROAD

39

90

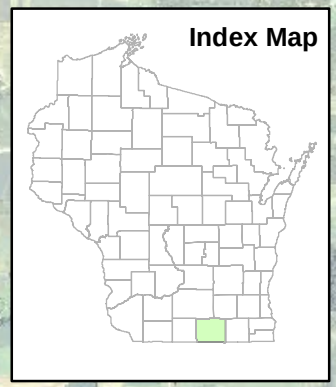
43

140

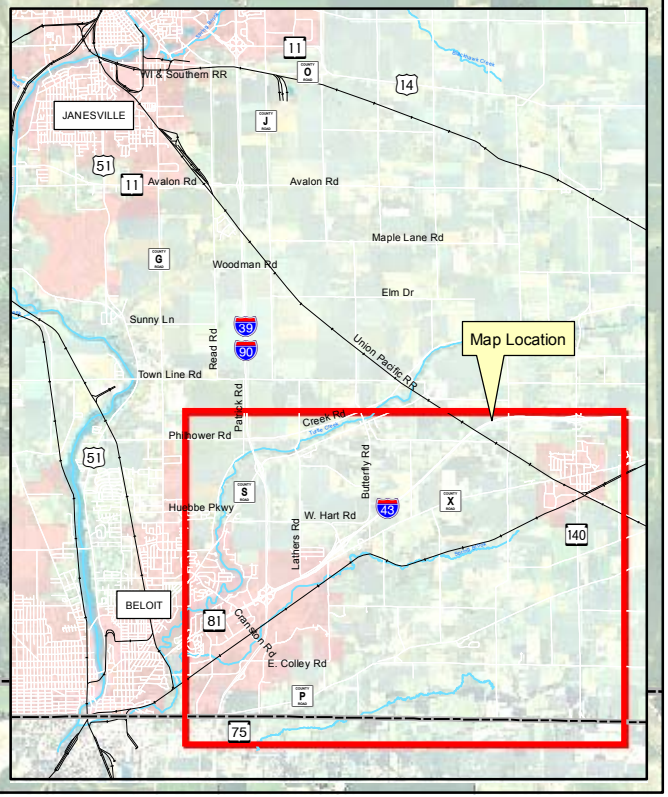
81

75

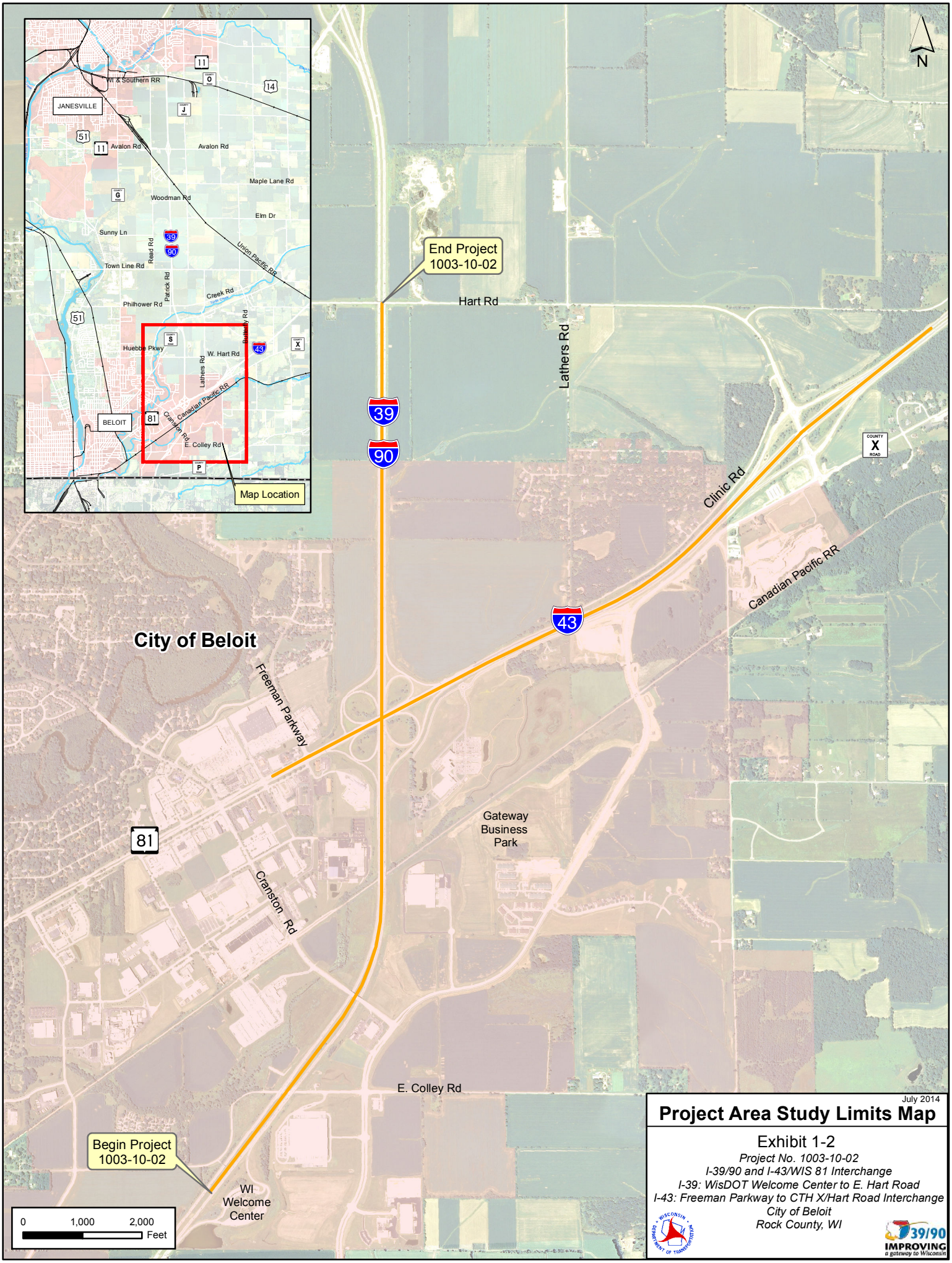
Index Map



Map Location



Appendix 2 – Project Area Study Limits Map



July 2014

Project Area Study Limits Map

Exhibit 1-2

Project No. 1003-10-02
I-39/90 and I-43/WIS 81 Interchange
I-39: WisDOT Welcome Center to E. Hart Road
I-43: Freeman Parkway to CTH X/Hart Road Interchange
City of Beloit
Rock County, WI

39/90 IMPROVING a gateway to Wisconsin

Appendix 3 – Corridors 2030 Transportation Plan

Corridors 2030 Transportation Plan

Appendix 3

Source: Connections 2030 Long-Range Multimodal Transportation Plan adopted October 2009

Appendix 4 – Beloit Access Map

N

39
90
81
75
43

STATELINE RD
GATEWAY BLVD
COLLEY RD
CRANSTON RD
COUNTY S
HART RD
COUNTY X

Gateway Business Park

Beloit Access Map

APPENDIX 4

PROJECT I.D. 1003-10-02

SCALE IN FEET 0 1500 3000

Appendix 5 – Existing I-39/90 & I-43/WIS 81 Geometric Deficiencies

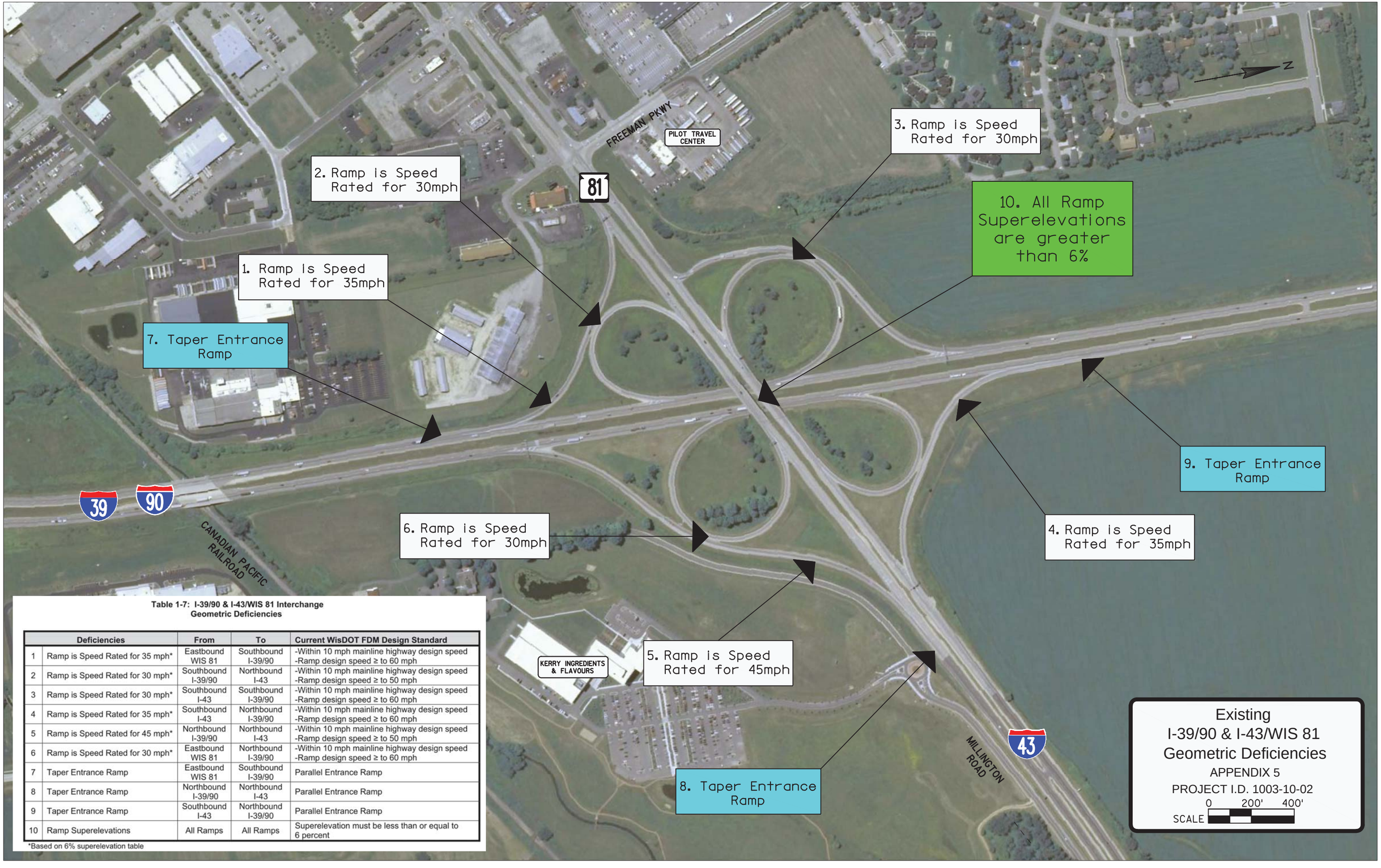


Table 1-7: I-39/90 & I-43/WIS 81 Interchange Geometric Deficiencies

	Deficiencies	From	To	Current WisDOT FDM Design Standard
1	Ramp is Speed Rated for 35 mph*	Eastbound WIS 81	Southbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
2	Ramp is Speed Rated for 30 mph*	Southbound I-39/90	Northbound I-43	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 50 mph
3	Ramp is Speed Rated for 30 mph*	Southbound I-43	Southbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
4	Ramp is Speed Rated for 35 mph*	Southbound I-43	Northbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
5	Ramp is Speed Rated for 45 mph*	Northbound I-39/90	Northbound I-43	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 50 mph
6	Ramp is Speed Rated for 30 mph*	Eastbound WIS 81	Northbound I-39/90	-Within 10 mph mainline highway design speed -Ramp design speed ≥ to 60 mph
7	Taper Entrance Ramp	Eastbound WIS 81	Southbound I-39/90	Parallel Entrance Ramp
8	Taper Entrance Ramp	Northbound I-39/90	Northbound I-43	Parallel Entrance Ramp
9	Taper Entrance Ramp	Southbound I-43	Northbound I-39/90	Parallel Entrance Ramp
10	Ramp Superelevations	All Ramps	All Ramps	Superelevation must be less than or equal to 6 percent

*Based on 6% superelevation table

Existing
I-39/90 & I-43/WIS 81
Geometric Deficiencies
APPENDIX 5
PROJECT I.D. 1003-10-02

SCALE 0 200' 400'

Appendix 6 – Detailed Alternatives

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 2 OPTION A

APPENDIX 6 Sheet 1 of 2

WALMART SUPERCENTER

MILWAUKEE ROAD

CITY OF BELOIT

MENARDS

81

INTERSECTION TYPE TO BE DETERMINED

FREEMAN PKWY

PILOT TRAVEL CENTER

R-31

Potential Park & Ride

INTERSECTION TYPE TO BE DETERMINED

E. HART RD

N

39

90

CRANSTON RD

S3

Gateway Business Park

INTERSECTION TYPE TO BE DETERMINED

WIS 81/MILWAUKEE ROAD EXTENSION

S2

TRIBUTARY TO SPRING BROOK (S2)

KERRY INGREDIENTS & FLAVOURS

KERRY DRIVEWAY

Residential Relocation

SPRING BROOK (S3)

S3

Potentially Eligible Historic Property

CANADIAN PACIFIC RAILROAD

INTERSECTION TYPE TO BE DETERMINED

GATEWAY BLVD

R-30

43

E. HART RD

COUNTY X

SCALE 0 500' 1000'

LEGEND

- WETLANDS
- ## WETLAND/WATERWAY LABEL
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- FLOOD STORAGE
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- GATEWAY BUSINESS PARK
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL RELOCATION

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 2 OPTION A MODIFIED

APPENDIX 6 Sheet 2 of 2

N

WALMART SUPERCENTER

MILWAUKEE ROAD

CITY OF BELOIT

81

MENARDS

INTERSECTION TYPE TO BE DETERMINED

FREEMAN PKWY

PILOT TRAVEL CENTER

R-31

E. HART RD

Potential Park & Ride

INTERSECTION TYPE TO BE DETERMINED

39

90

CRANSTON RD

S3

Gateway Business Park

INTERSECTION TYPE TO BE DETERMINED

WIS 81/MILWAUKEE ROAD EXTENSION

S2

TRIBUTARY TO SPRING BROOK (S2)

KERRY INGREDIENTS & FLAVOURS

KERRY DRIVEWAY

SPRING BROOK (S3)

Residential Relocation

S3

Potentially Eligible Historic Property

CANADIAN PACIFIC RAILROAD

GATEWAY BLVD

INTERSECTION TYPE TO BE DETERMINED

R-30

43

E. HART RD

COUNTY X

SCALE 0 500' 1000'

LEGEND

- WETLANDS
- WETLAND IMPACTS
- WETLAND/WATERWAY LABEL
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- FLOOD STORAGE
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- GATEWAY BUSINESS PARK
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL RELOCATION

Appendix 7 – Preferred Alternative

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

PREFERRED ALTERNATIVE

CITY OF BELOIT

MILWAUKEE ROAD

WALMART SUPERCENTER

MENARDS

81

FREEMAN PKWY

PILOT TRAVEL CENTER

R-31

E. HART RD

N

Potential Park & Ride

39

90

COLLEY RD

CRANSTON RD

S3

B-53-46 (TO BE REPLACED)
B-53-302

B-53-47 (TO BE REPLACED)
B-53-303

B-53-48 (TO BE REPLACED)
B-53-300

B-53-305 (NEW)

S2

TRIBUTARY TO SPRING BROOK (S2)

B-53-51 (TO BE REPLACED)
B-53-301

B-53-308 (NEW)

B-53-307 (NEW)

B-53-304 (NEW)

KERRY INGREDIENTS & FLAVOURS

KERRY DRIVEWAY

WIS 81/MILWAUKEE ROAD EXTENSION

B-53-306 (NEW)

Gateway Business Park

SPRING BROOK (S3)

Residential Early Acquisition

S3

CANADIAN PACIFIC RAILROAD

GATEWAY BLVD

Potentially Eligible Historic Property

R-30

43

E. HART RD

COUNTY X

SCALE 0 500' 1000'

LEGEND

- WETLANDS
- WETLAND IMPACTS
- WETLAND/WATERWAY LABEL
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- FLOOD STORAGE
- STORMWATER FEATURE
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- GATEWAY BUSINESS PARK
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL EARLY ACQUISITION

Appendix 8 – Other Alternatives

Discussion of Preferred Alternative Selection

A. ALTERNATIVE DEVELOPMENT

Alternatives considered during this study included the original EA preferred alternative (Project ID 1001-07-00), the No-Build Alternative, five build preliminary alternatives, and two detailed study alternatives. The design speed for each of the build alternative's is up to 70 miles per hour (mph). The free flow movements of I-43 southbound to I-39/90 southbound and I-39/90 northbound to I-43 northbound are designed for 70 mph. The other two free flow movements are designed for 60 mph. Each of the build preliminary alternatives were designated as either an Option A or Option B. Option A included relocating the I-39/90 mainline approximately 300 feet to the east in an effort to both minimize overall community impacts and construction costs to construct a two-level interchange. Option B maintained the location of I-39 through the interchange which resulted in developing interchange alternatives with three tier roadways.

No-Build Alternative

The No-build Alternative was evaluated as a baseline comparison. The No-build Alternative would leave the existing I-43 interchange configuration the same with the exception that it would add an additional lane along I-39/90 in both directions. The addition of the NB and SB lanes along I-39/90 is part of the I-39/90 improvement project from the Illinois State Line to Madison.

The existing geometry of the I-39/90 & I-43/WIS 81 system/service interchange does not meet current highway design standards and the traffic operations along the ramps would be below LOS C in the design year 2040. At the interchange, the additional lanes would need to be accommodated in the existing median to avoid/minimize impacts to the existing interchange and ramps. This would result in a narrow median and substandard inside shoulder widths. Therefore, the No Build Alternative does not meet the purpose and need for this project and it was dropped from further consideration. However, it will be carried forward for comparison purposes.

Original EA Preferred Alternative (Project ID 1001-07-00)

The preferred alternative from the original EA was evaluated as part of this study. This alternative included a two tier interchange with I-39/90 shifting slightly to the east from its current alignment. Several of the design features of the preferred alternative from the original EA either do not meet current design standards or are not preferred by FHWA. These design features include:

- All free flow ramps were designed with a design speed of 60 mph. FHWA recommends the design speed be increased to 70 mph for the I-39/90 NB to I-43 NB movement and the SB I-43 to the I-39/90 SB movement. These movements are considered to be part of the I-43 freeway and not ramps.
- The NB and SB I-39/90 approaches were designed with two closely spaced diverge/merge exits. FHWA prefers one access point along the interstate when diverge/merge points are close together; therefore all secondary diverge/merge points

are to occur after providing a single diverge/merge point to the interstate. The decrease from 2 diverge/merge points to 1 diverge/merge point allows for better traffic operations and an increase in safety.
- A slip ramp located off of EB WIS 81/Milwaukee Road was planned to be the connection to the relocated Millington Road. This slip ramp is not desirable because it only provides access to Millington Road from Beloit; with no access from Millington Road to Beloit.

Since there are several design features with this alternative that do not meet the current purpose and need of this project, this alternative was dropped from further consideration. The identified deficiencies are listed below.

- SB and NB I-43 needs to maintain full freeway design speed of 70 mph through the interchange.
- Provide one diverge/merge in the NB and SB I-39/90 movements to increase safety and traffic operations.
- FHWA policy states that all traffic movements must be provided with the proposed access connection.

1) Preliminary Alternatives

Three preliminary build alternatives were developed to allow for high speed, free flow movements at the I-39/90 and I-43 interchange. Alternative 1 maintained existing interstate access for Beloit. Alternative 2 included an extension of WIS 81 to Gateway Boulevard with I-43 access to Beloit relocated to the County X interchange. Alternative 3 included an extension of WIS 81 to Gateway Boulevard with I-43 access to Beloit occurring between County X interchange and I-39/90. Then, an option A and/or B was developed based on geometry and impact evaluation.

a) Alternative 1

Alternative 1 involves a full reconstruction of the I-43/WIS 81 interchange. The following improvements would be made:

- Ramp design speeds up to 70 mph
- Access modifications:
    - The existing cloverleaf configuration will be re-designed as a free-flow system interchange with an imbedded diamond interchange providing access to WIS 81/Milwaukee Road.
    - Direct local access from I-43 to WIS 81/Milwaukee Road will remain via direct on and off ramps.
    - All other local access will remain the same.

i) Option A – Relocate I-39/90 Eastward (Alternative 1A)

This alternative option has a high level staging complexity for construction since mainline construction of I-39/90 will occur off alignment with complex staging of temporary ramps.

Alternative 1A includes the following:

- Relocating the I-39/90 mainline approximately 300 feet to the east in the interchange area.
- Two tier interchange.
- All movements along I-39/90, I-43, and WIS 81/Milwaukee Road would be changed and upgraded to meet current design standards.
- Maintains existing local road and interstate access.

The following traffic maneuvers and lane configurations for local road and interstate access are described below.

1. EB WIS 81/Milwaukee Road from Beloit
    a. To I-39/90:
        i. Diamond interchange configuration to allow access onto NB and SB I-39/90.
    b. To I-43:
        i. On-ramp to I-43 from WIS 81/Milwaukee Road. Vehicles will travel through the local I-39/90 diamond interchange before merging onto I-43.
2. SB I-43 Approach
    a. Three travel lanes from SB I-43/County X/Hart Road interchange to NB I-39/90 exit ramp.
        i. Left two lanes are for vehicles heading SB onto I-39/90 (70 mph design speed).
        ii. Right lane (auxiliary lane) will be used as an exit ramp which expands into two lanes.
            1. Left lane for vehicles heading NB onto I-39/90 (60 mph ramp design speed).
            2. Right lane for SB local traffic that becomes WIS 81/Milwaukee Road into the city of Beloit.
3. SB I-39/90 Approach
    a. Three through lanes for vehicles heading SB on I-39/90.
    b. Parallel exit ramp for vehicles heading NB onto I-43 (60 mph design speed).
        i. Parallel exit ramp from the free flow system ramp continuing to the new intersection with WIS 81/Milwaukee Road.
4. NB I-39/90 Approach
    a. Four travel lanes will be provided from the Wisconsin Welcome Center to the NB I-43 exit with the right lane being an auxiliary lane.
    b. A split of two interstates will be provided that will expand into five lanes.
        i. The two right lanes will continue to start NB I-43 (70 mph design speed).
        ii. Parallel right exit ramp along I-43 will provide local access to WIS 81/Milwaukee Road

ii) Option B – I-39/90 Existing Alignment (Alternative 1B)

This alternative option has a medium level staging complexity for construction since mainline construction of I-39/90 at the interchange can follow the same overall staging strategy of the corridor.

Alternative 1B is the same as Alternative 1A except for the following significant items. Alternative 1B would remain on the current I-39 alignment. This would result in decreased construction complexity but would require a three tier interchange.

b) Alternative 2

Alternative 2 would involve a full reconstruction of the I-43/WIS 81 interchange. The following improvements would be made:

- Ramp design speeds up to 70 mph
- Access modifications:
    - The existing cloverleaf configuration will be re-designed as a free-flow system interchange with an imbedded diamond interchange providing access to WIS 81/Milwaukee Road.
    - Extend WIS 81/Milwaukee Road from its current location in Beloit to connect with Gateway Boulevard to the east.
        - Moves local Beloit direct access from I-43 to the I-43/County X/Hart Road interchange.
    - Four new intersections along WIS 81/Milwaukee Road extension.
        - Two will be the on and off ramps for I-39/90.
        - Kerry Corporation driveway.
        - Gateway Boulevard intersection.

i) Option A – Relocate I-39/90 Eastward (Alternative 2A)

This alternative option has a high level staging complexity for construction since mainline construction of I-39/90 will occur off alignment and require complex staging of temporary ramps.

Alternative 2A includes the following:

- Relocating the I-39/90 mainline approximately 300 feet to the east in the interchange area and adding closely spaced reverse curves to the mainline alignment.
- Two tier interchange.
- All movements along I-39/90, I-43, and WIS 81/Milwaukee Road would be changed and upgraded to meet current design standards.

The following traffic maneuvers and lane configurations for local road and interstate access are described below.

1. EB WIS 81/Milwaukee Road from Beloit
    - To I-39/90:
        - Diamond interchange configuration to allow access onto NB and SB I-39/90.
            - The SB I-39/90 on-ramp will merge with SB I-43 before merging with I-39/90.
    - To I-43:
        - Direct access between I-43 and WIS 81/Milwaukee Road will no longer be provided.
        - Vehicles will travel through the local I-39/90 diamond interchange to the WIS 81/Milwaukee Road extension. Vehicles will use the extension to access I-43 via the I-43/County X/Hart Road interchange.

2. SB I-43 Approach
    - Three travel lanes from SB I-43/County X/Hart Road interchange to NB I-39/90 exit ramp.
        - Left two lanes are for vehicles heading SB onto I-39/90 (70 mph design speed).

    - Right lane (auxiliary lane) for vehicles heading NB onto I-39/90 (60 mph ramp design speed).
  - Direct access between SB I-43 and WIS 81/Milwaukee Road will no longer be provided.
    - Vehicles will use the I-43/County X/Hart Road interchange to the WIS 81/Milwaukee Street extension to get into the city of Beloit.
3. SB I-39/90 Approach
   - Three through lanes for vehicles heading SB on I-39/90.
   - Parallel exit ramp for vehicles heading NB onto I-43 (60 mph design speed).
     - Parallel exit ramp from the free flow system ramp continuing to the new intersection with WIS 81/Milwaukee Road.
4. NB I-39/90 Approach
   - Four travel lanes will be provided from the Wisconsin Welcome Center to the NB I-43 exit with the right lane being an auxiliary lane.
   - A split of two interstates will be provided that will expand into five lanes.
     - The two right lanes will continue to start NB I-43 (70 mph design speed).
     - Parallel right exit ramp along I-43 will provide local access to WIS 81/Milwaukee Road.

This alternative option provides improved access to the Gateway Business Park, while maintaining the local access into the city of Beloit and providing high-speed free flow ramps for the interstate-to-interstate connections. By improving the access to the Gateway Boulevard area, it enhances the ability for the city of Beloit to expand and provide for the planned future growth of the community between I-39/90 & the I-43/WIS 81 interchange.

ii) Option B – I-39/90 Existing Alignment (Alternative 2B)

This alternative option has a medium level staging complexity for construction since mainline construction of I-39/90 at the interchange can follow the same overall staging strategy of the corridor.

Alternative 2B is the same as Alternative 2A except I-39/90 would remain on its current alignment. This would result in decreased construction complexity but would require a three tier interchange. The SB I-43 to NB I-39/90 ramp has a vertical down grade of 5% compared to 1% in Alternative 2A.

This alternative option provides improved access to the Gateway Business Park area and maintains all other access at the system/service interchange. It also allows I-39/90 to remain on the existing alignment, and has easier construction staging than Alternative 2A.

c) Alternative 3

i) Option B - I-39/90 Existing Alignment (Alternative 3B)

This alternative option has a high level staging complexity for construction because of the additional ramps for I-43 allowing for direct access to and from the Gateway Business Park area.

Alternative 3B includes the following:

- I-39/90 would remain on its current alignment
- Three tier interchange.
- All movements along I-39/90, I-43, and WIS 81/Milwaukee Road would be changed and upgraded to meet current design standards.
- Maintains existing interstate access and extends WIS 81 to the east.

Alternative 3B is the same as Alternative 2B; except the WIS 81/Milwaukee Road extension would include a newly created intersection with I-43 NB and SB ramp terminals. This would allow for local access into Beloit to and from I-43. Local access would also be provided with this alternative at the County X/Hart Road interchange; which is similar to Alternative 2.

2) Public Involvement – Preliminary Alternatives

A Technical Advisory Committee (TAC) was formed for the I-39/90 and I-43/WIS 81 interchange to assist in deciding design standards and potential alternatives to evaluate. These meetings included WisDOT region staff, WisDOT Bureau Staff, FHWA, and local representatives. The first meeting was held on March 21, 2013 for the I-39/90 and I-43/WIS 81 interchange. There have been a total of 16 meetings to date.

On October 9, 2013, a TAC meeting was held that involved the city of Beloit, Rock County, FHWA, and WisDOT. The purpose of this meeting was to discuss Alternatives 1A, 1B, 2A, 2B, and 3B. During the meeting, it was noted that Alternative 3B had high costs and minimal benefits compared to Alternatives 1 and 2. The local representatives preferred Alternative 2 over Alternative 1.

On December 10, 2013, a public involvement meeting was held at the Rotary River Center in Rock County. The purpose of this meeting was to show the local officials and public Alternatives 1A, 1B, 2A, 2B, and 3B and to receive input on the alternatives. The meeting was attended by 61 people. Approximately 65% of the written comments received preferred Alternative 2, 25% preferred Alternative 1, and 10% preferred Alternative 3. They preferred Alternative 2 because it provided a direct local connection (vehicular, bicycle, and pedestrian) across the interstate into the Gateway Business Park east of I-39/90.

On January 21, 2014, the city of Beloit passed a resolution endorsing either Alternative 2A or 2B.

3) Comparison of Preliminary Alternatives

Table 1 compares the impacts of each of the preliminary alternatives. The comparison between alternatives include: project length, cost, farms affected, right of way impacts, buildings required, floodplain encroachment, stream crossings, endangered species affected, potential historic properties, archaeological sites, and Gateway Boulevard access.

Table 1 – Alternative Comparison

Comparison Factor	No Build*	1A	1B	2A	2B	3B
Project Length (Lane Miles)	14	34	34	35	35	36
Construction Cost: Structures ($ Million)	0	29	39	30	48	53
Construction Cost: Non-Structures ($ Million)	19	59	65	62	65	66
Real Estate Cost ($ Million)	1	5	4	4	5	5
Total Cost ($Million)	20	93	108	96	117	124
Farms Affected	3	7	7	7	7	7
Area From Farm Operations Required (Acres)	1.8	57	60	53	58	67
Wetlands Filled (Acres)	0	0	0	0	0	0
Other Area Converted to Right of Way	1.2	33	23	35	36	38
Total New Right of Way Area (Acres)	3	90	83	88	94	105
Buildings Required	0	1	1	1	1	1
Floodplain Encroachment	Yes	Yes	Yes	Yes	Yes	Yes
Stream Crossings	2	2	2	2	2	2
Endangered Species Affected	0	0	0	0	0	0
Potentially Eligible Historic Properties	0	1	1	1	1	1
Archaeological Sites	0	0	0	0	0	0
New Gateway Blvd. Access	No	No	No	Yes	Yes	Yes

***No build refers to the addition of one lane being added in each direction to the I-39/90 mainline. No improvements to the interchange ramps or I-43 are taking place.

There are several factors that have minimal differences between the five options. These factors include farms affected, buildings required, floodplain encroachment, stream crossings, endangered species affected, and potential historic properties. These factors will not be discussed in detail in this report.

The main difference between Alternative 1A/1B and Alternative 2A/2B is that Alternative 2 shifts the Beloit local access to I-43 from its current location to the County X/Hart Road interchange. Alternative 2 will use a new extension of WIS 81/Milwaukee Road in order to gain access to I-43 at the County X/Hart Road interchange.

After evaluating Alternative 1A & 1B and Alternative 2A & 2B, the overall costs between the A and B options are approximately the same and they both meet the purpose and need of the project. However, the local representatives and the public prefer Alternative 2A & 2B because they liked the local access configuration that WIS 81/Milwaukee Road would provide. Alternative 2A & 2B enhances local mobility into the city of Beloit that Alternative 1A & 1B did not provide by providing direct access between Gateway Boulevard and WIS 81/Milwaukee Road. Alternative 2A & 2B also provides a multi-modal path along the extension of WIS 81/Milwaukee Road. Therefore, Alternative 1A & 1B was dropped from further consideration.

Overall when comparing the different comparison factors in Table 1, Alternative 2A and Alternative 2B have many similarities. Alternative 2B remains on the same alignment allowing for a more favorable staging process versus Alternative 2A that relocates the mainline 300 feet from its current alignment. Alternative 2A requires an additional curve along I-39/90 due to the shift in alignment.

A main difference between Alternative 2A and Alternative 2B is the total cost. Alternative 2A is $21 million less than Alternative 2B. The reasoning behind the difference in cost is the construction cost of the bridge structures. Alternative 2B is a three tier interchange and requires a significant additional amount of bridge length versus Alternative 2A. The three tier option requires steeper grades along the directional ramps, which is not favorable compared to the two tier option. For those reasons mentioned, Alternative 2B was dropped from further consideration.

Alternative 3B would require an additional 105 acres of new highway right of way, which is 11 acres more than any alternative or option. Due to the extensive amount of right of way required and the high estimated construction cost of this alternative ($124 Million), it was dropped from further consideration.

Alternative 2A and No-Build Alternative will be carried forward in the detailed alternative stage.

C. DETAILED ALTERNATIVES

The design of Alternative 2A was evaluated in further detail. In an effort to combine design features from Alternative 2A and Alternative 2B to improve construction staging and reduce right of way impacts, Alternative 2A Modified was created. This alternative provides improved access to the Gateway Business Park area and maintains all other access at the system/service interchange. It also allows I-39/90 to remain closer to the existing alignment, reducing right of way impacts and making construction staging easier than Alternative 2A.

i) Alternative 2A – Relocate I-39/90 Eastward

See Section B. 1) b) i) for a description.

ii) Alternative 2A Modified – Minor Shift of I-39/90 Alignment

This alternative option has a medium level staging complexity since mainline construction of I-39/90 at the interchange can follow the same overall staging strategy of the corridor.

Alternative 2A Modified is the same as Alternative 2A except for the following items described below:

- The alignment of I-39/90 will be shifted so that the SB lanes will be located on the existing location of the NB lanes. This will allow for less complex construction staging.
- The alignment of the extended WIS 81/Milwaukee Road will be shifted north of the existing crossing of I-39/90. This will allow for less complex construction staging and will minimize the overall right of way impacts.
- The median of I-39/90 will be widened to 34 feet to account for the potential of wider hammerhead pier columns.
- The I-39/90 alignment will return to the existing location via two normal crown curves just south of Hart Road.

1) Comparison of Detailed Alternatives

The No Build Alternative was dropped from further consideration because it does not meet the purpose and need of this project.

The cost difference between Alternative 2A and Alternative 2A Modified is $5 million. Alternative 2A Modified has 18 less acres of total right of way impact and 5 less acres of farmland right of way impact versus Alternative 2A. Also, Alternative 2A Modified allows for better construction staging than Alternative 2A, which will result in less impacts to the community during construction. One difference between Alternative 2A and Alternative 2A Modified is 2A results in no wetland impacts. The amount of wetlands filled for Alternative 2A Modified is 0.6 acres.

Table 2 – Detailed Alternative Comparison

Comparison Factor	No Build*	2A	2A Modified	Preferred 2A Modified
Project Length (Lane Miles)	14	35	35	35
Construction Cost: Structures ($ Million)	0	30	36	42
Construction Cost: Non-Structures ($ Million)	19	62	61	62
Real Estate Cost ($ Million)	1	4	4	6
Total Cost ($ Million)	20	96	101	110
Farms Affected	3	7	7	7
Area From Farm Operations Required (Acres)	1.8	53	48	55.4
Wetlands Filled (Acres)	0	0	0.6	0.6
Other Area Converted to Right of Way	1.2	35	21.4	26
Total New Right of Way Area (Acres)	3	88	70	82
Buildings Required	0	1	1	1
Floodplain Encroachment	Yes	Yes	Yes	Yes
Stream Crossings	2	2	2	2
Endangered Species Affected	0	0	0	0
Potentially Eligible Historic Properties	0	1	1	1
Archaeological Sites	0	0	0	0
New Gateway Blvd. Access	No	Yes	Yes	Yes

*No build refers to the addition of one lane being added in each direction to the I-39/90 mainline. No improvements to the interchange ramps or I-43 are taking place.

D. PREFERRED ALTERNATIVE

Both Alternative 2A and Alternative 2A Modified meet the purpose and need. Alternative 2A Modified provides less right of way impacts and better construction staging. These two benefits outweigh the $5 million cost difference. The city of Beloit supports an option of Alternative 2 that provides enhanced mobility through the extension of WIS 81/Milwaukee Road to Gateway Boulevard. Therefore the preferred alternative is Alternative 2A Modified.

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 1 OPTION A

APPENDIX 8

WALMART SUPERCENTER

MENARDS

CITY OF BELOIT

MILWAUKEE ROAD

FREEMAN PKWY

PILOT TRAVEL CENTER

R-31

81

Potential Park & Ride

E HART RD

N

39

90

CRANSTON RD

S3

S2

TRIBUTARY TO SPRING BROOK (S2)

KERRY INGREDIENTS & FLAVOURS

MILLINGTON ROAD

Residential Relocation

SPRING BROOK (S3)

Potentially Eligible Historic Property

S3

CANADIAN PACIFIC RAILROAD

GATEWAY BLVD

R-30

43

COUNTY X

E. HART RD

LEGEND

- WETLANDS
- ## WETLAND/WATERWAY LABEL
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL RELOCATION

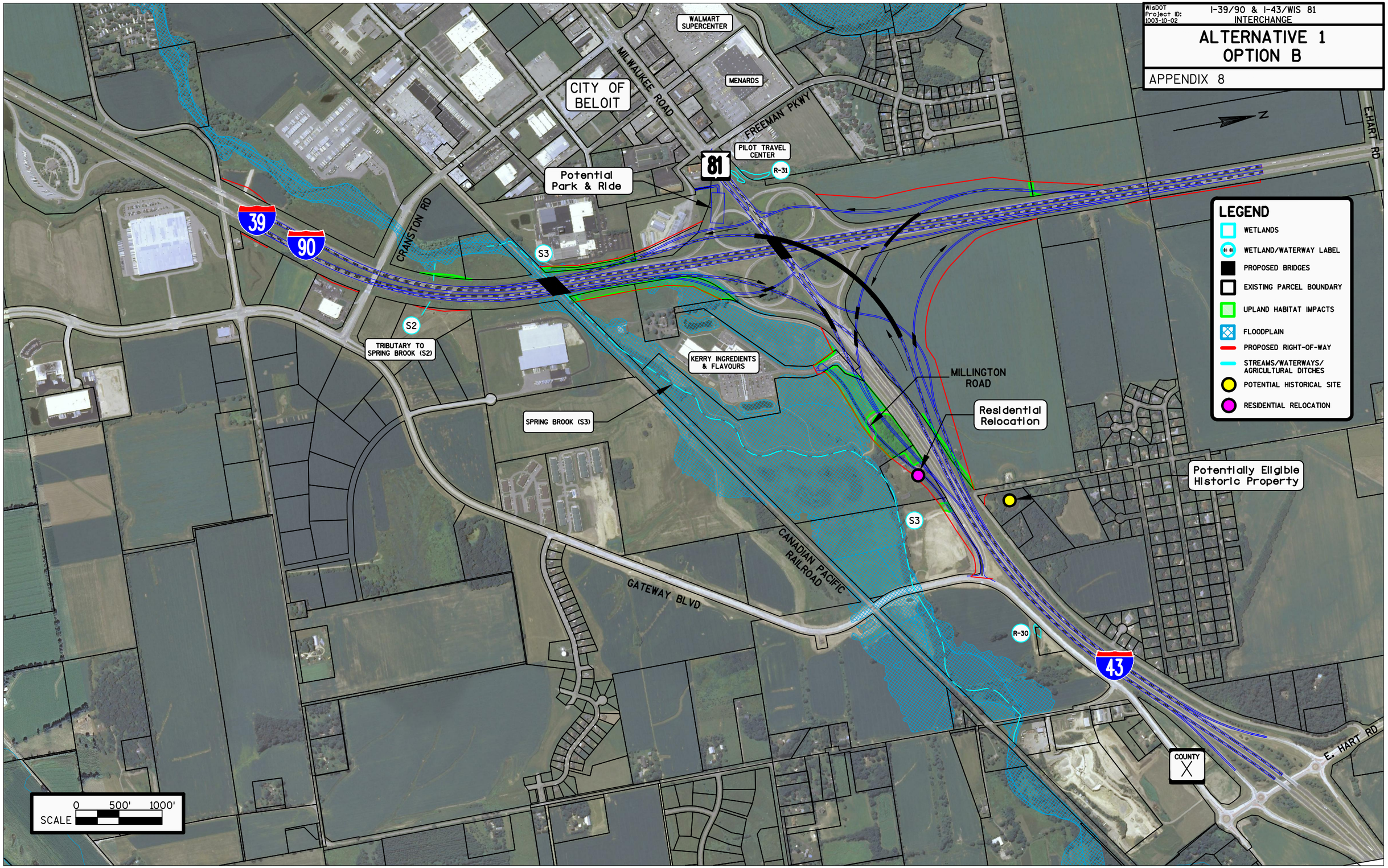
SCALE 0 500' 1000'

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 1 OPTION B

APPENDIX 8



LEGEND

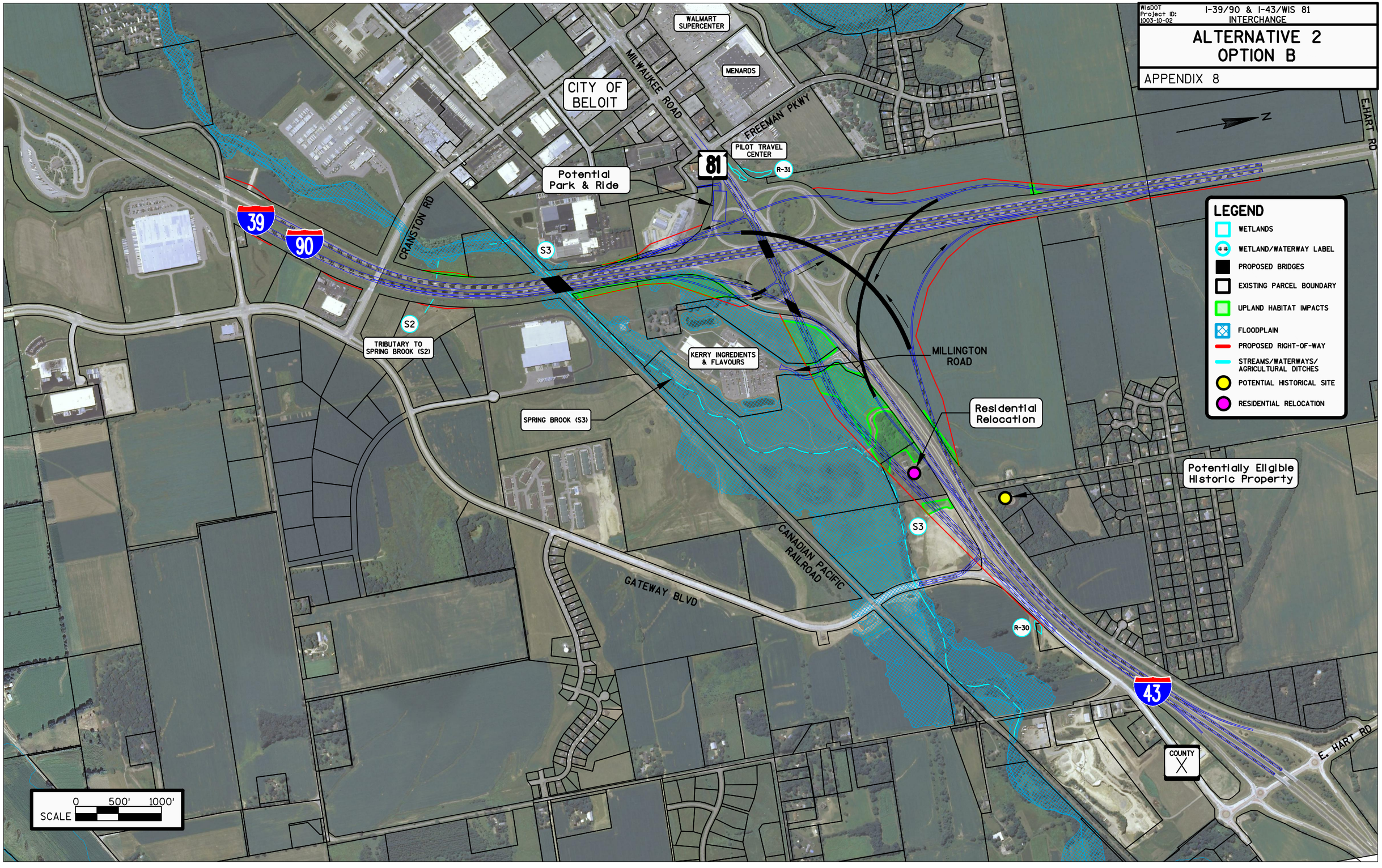
- WETLANDS
- ## WETLAND/WATERWAY LABEL
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL RELOCATION

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 2 OPTION B

APPENDIX 8



WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ALTERNATIVE 3 OPTION B

APPENDIX 8

WALMART SUPERCENTER

MENARDS

CITY OF BELOIT

MILWAUKEE ROAD

FREEMAN PKWY

PILOT TRAVEL CENTER

R-31

81

E HART RD

N

Potential Park & Ride

39

90

CRANSTON RD

S3

S2

TRIBUTARY TO SPRING BROOK (S2)

KERRY INGREDIENTS & FLAVOURS

MILLINGTON ROAD

Residential Relocation

SPRING BROOK (S3)

Potentially Eligible Historic Property

S3

CANADIAN PACIFIC RAILROAD

GATEWAY BLVD

R-30

43

COUNTY X

E. HART RD

SCALE 0 500' 1000'

LEGEND

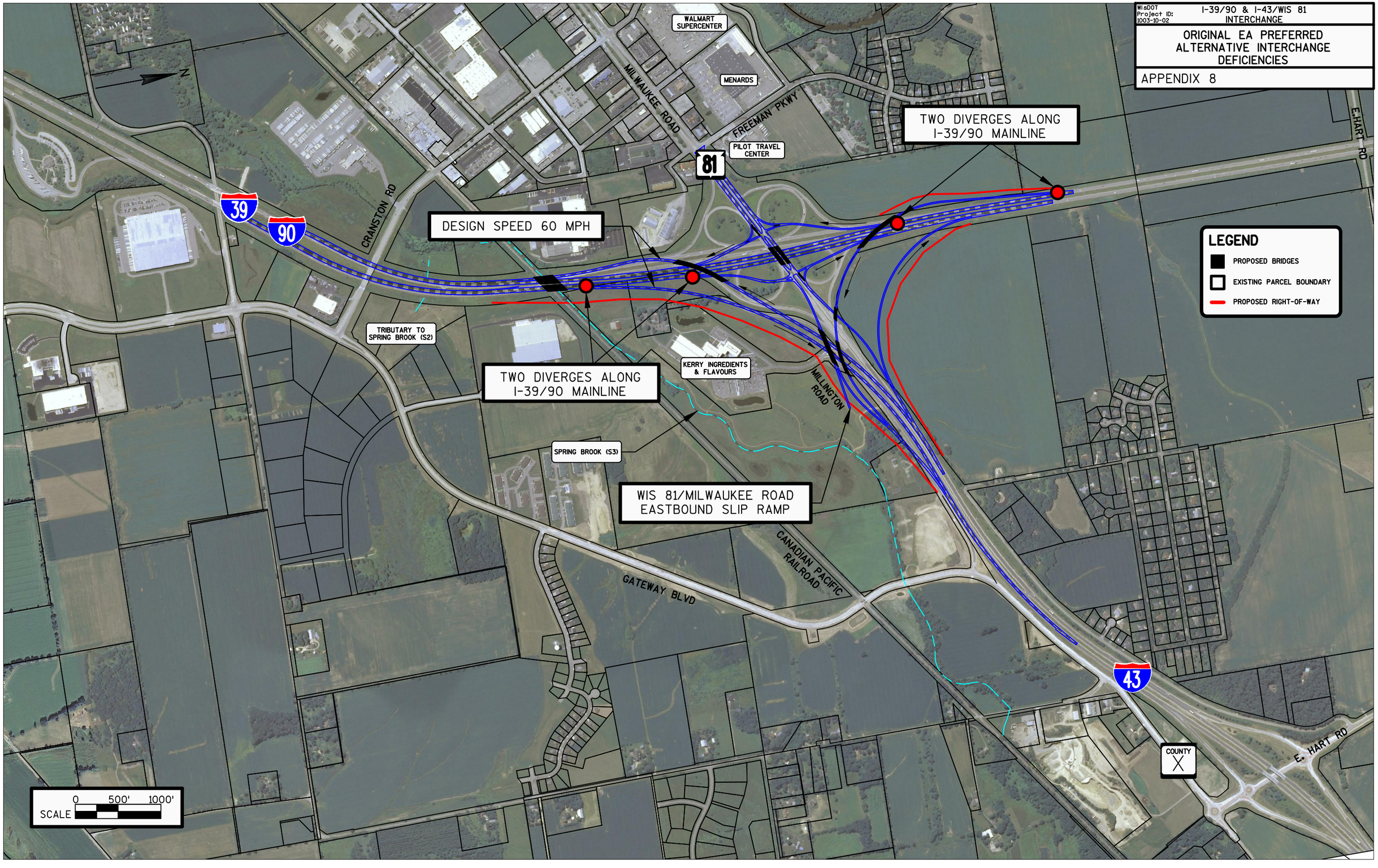
- WETLANDS
- WETLAND/WATERWAY LABEL (##)
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- UPLAND HABITAT IMPACTS
- FLOODPLAIN
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES
- POTENTIAL HISTORICAL SITE
- RESIDENTIAL RELOCATION

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

ORIGINAL EA PREFERRED ALTERNATIVE INTERCHANGE DEFICIENCIES

APPENDIX 8

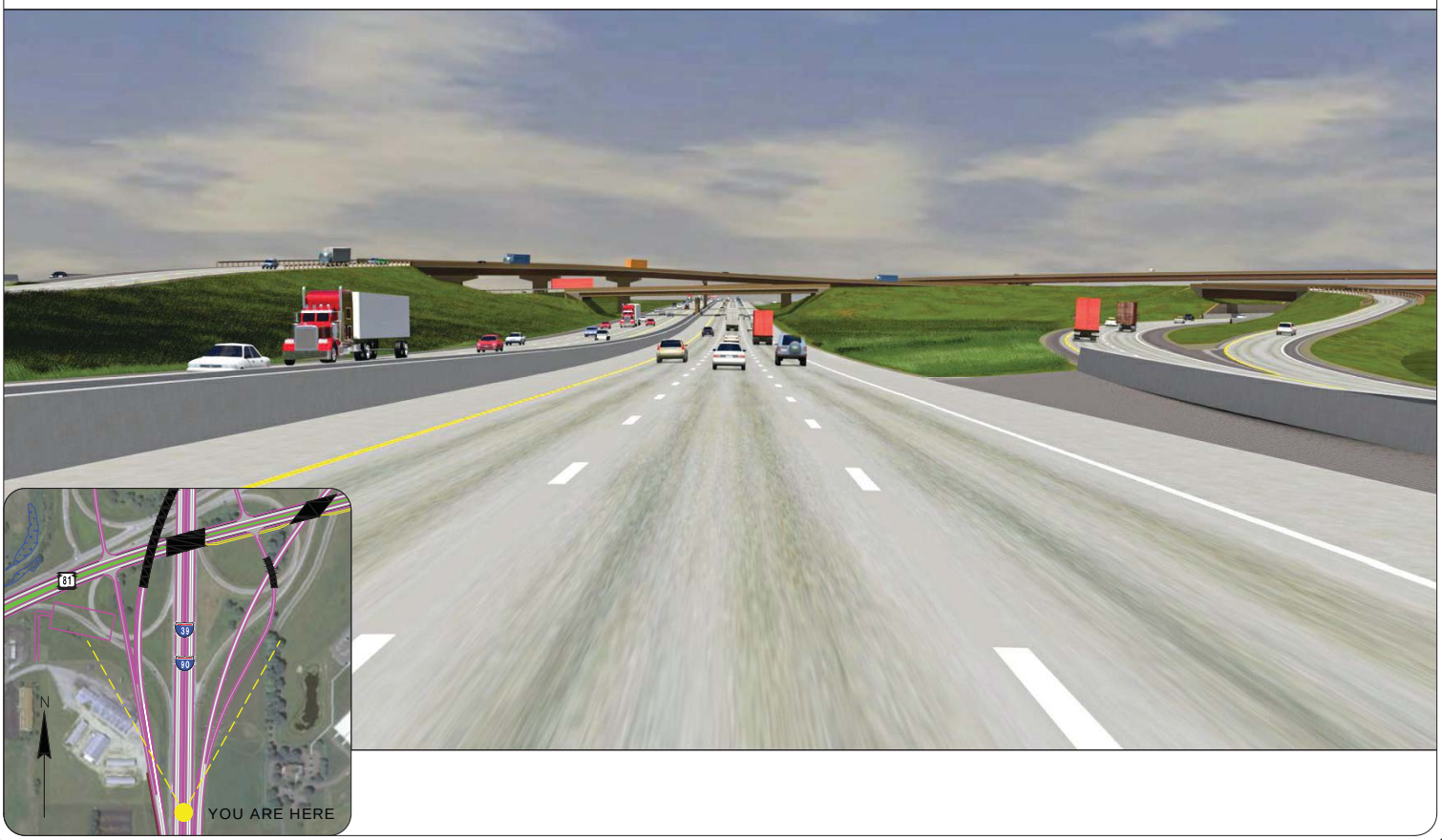


STH 81 LOOKING EAST TOWARDS INTERCHANGE - ALL "A" ALTERNATIVES

STH 81 LOOKING EAST TOWARDS INTERCHANGE - ALL "B" ALTERNATIVES

I-39 LOOKING NORTH TOWARDS INTERCHANGE - ALL "A" ALTERNATIVES

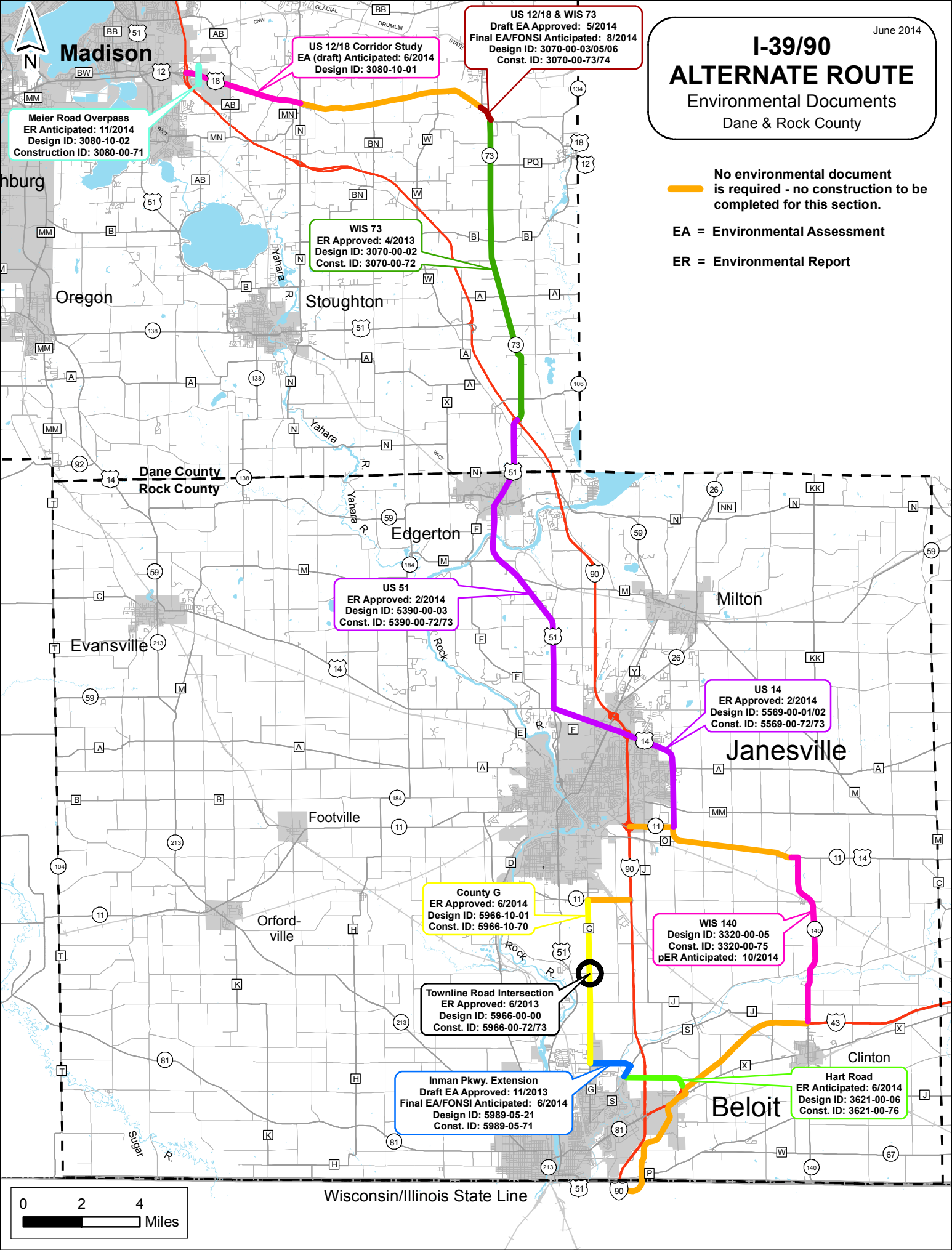
I-39 LOOKING NORTH TOWARDS INTERCHANGE - ALL "B" ALTERNATIVES



I-39 LOOKING SOUTH TOWARDS INTERCHANGE - ALL "A" ALTERNATIVES

I-39 LOOKING SOUTH TOWARDS INTERCHANGE - ALL "B" ALTERNATIVES

Appendix 9 – I-39/90 Mainline Alternate Route Map


June 2014
I-39/90
ALTERNATE ROUTE
Environmental Documents
Dane & Rock County
No environmental document is required - no construction to be completed for this section.
EA = Environmental Assessment
ER = Environmental Report
US 12/18 & WIS 73
Draft EA Approved: 5/2014
Final EA/FONSI Anticipated: 8/2014
Design ID: 3070-00-03/05/06
Const. ID: 3070-00-73/74
US 12/18 Corridor Study
EA (draft) Anticipated: 6/2014
Design ID: 3080-10-01
Meier Road Overpass
ER Anticipated: 11/2014
Design ID: 3080-10-02
Construction ID: 3080-00-71
WIS 73
ER Approved: 4/2013
Design ID: 3070-00-02
Const. ID: 3070-00-72
US 51
ER Approved: 2/2014
Design ID: 5390-00-03
Const. ID: 5390-00-72/73
US 14
ER Approved: 2/2014
Design ID: 5569-00-01/02
Const. ID: 5569-00-72/73
County G
ER Approved: 6/2014
Design ID: 5966-10-01
Const. ID: 5966-10-70
WIS 140
Design ID: 3320-00-05
Const. ID: 3320-00-75
pER Anticipated: 10/2014
Townline Road Intersection
ER Approved: 6/2013
Design ID: 5966-00-00
Const. ID: 5966-00-72/73
Inman Pkwy. Extension
Draft EA Approved: 11/2013
Final EA/FONSI Anticipated: 6/2014
Design ID: 5989-05-21
Const. ID: 5989-05-71
Hart Road
ER Anticipated: 6/2014
Design ID: 3621-00-06
Const. ID: 3621-00-76
Madison
Oregon
Stoughton
Edgerton
Milton
Janesville
Beloit
Clinton
Evansville
Footville
Orford-ville
Dane County
Rock County
Wisconsin/Illinois State Line
Yahara R.
Rock R.
Sugar R.
0 2 4 Miles

Appendix 10 – Land Use Maps

Project Location

Municipal Boundaries
Interstate Highway
Existing Roads
Railroads
3 - Mile Extraterritorial Jurisdiction
Surface Water

Existing Land Use Categories

Agricultural
Single-Family Residential - Exurban
Single-Family Residential - Urban
Two-Family/Townhouse Residental
Mixed Residential
Office
Commercial
Downtown
Business Park
Industrial
Institutional & Community Services
Parks and Open Spaces
Vacant

0 2,000 4,000 8,000 Feet

Date: March 17, 2008
Source: City of Beloit, Rock County

Vandewalle & Associates
Planning · Creating · Rebuilding

City of Beloit
Comprehensive Plan
Map 8: Existing Land Use

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision.
Environmental Corridors depicted on this map use generalized boundaries of environmental features identified by the DNR and Rock County. Actual Environmental Corridor boundaries are to be refined through detailed on-site investigation.

Project Location

See Downtown Redevelopment Plan and Map 9 for additional detail.

Municipal Boundaries
City of Beloit/Town of Turtle Boundary Adjustment Area
Interstate Highway
County Highways
Existing Roads
Potential Future Major Collector/Arterial Roads
Railroads
Surface Water

Future Land Use Categories

- Agricultural
- Single-Family Residential - Exurban
- Single-Family Residential - Urban
- Two-family/Townhouse Residental
- Mixed Residential
- Planned Neighborhood*
- Office
- Planned Mixed Use
- Neighborhood Commercial
- Community Commercial
- Downtown
- Business Park
- General Industrial
- Institutional & Community Services
- Environmental Corridor
- Parks and Open Spaces
- Long Range Urban Growth Area
- Right-of-Way

*"Planned Neighborhoods" should include a mix of the following:
1. Single Family - Urban (predominate land use)
2. Two-family/Townhouse
3. Mixed Residential
4. Institutional and Community Services
5. Office
6. Neighborhood Commercial
7. Parks and Open Space

0 0.25 0.5 1 Miles

Date: March 17, 2008
Source: City of Beloit, Rock County

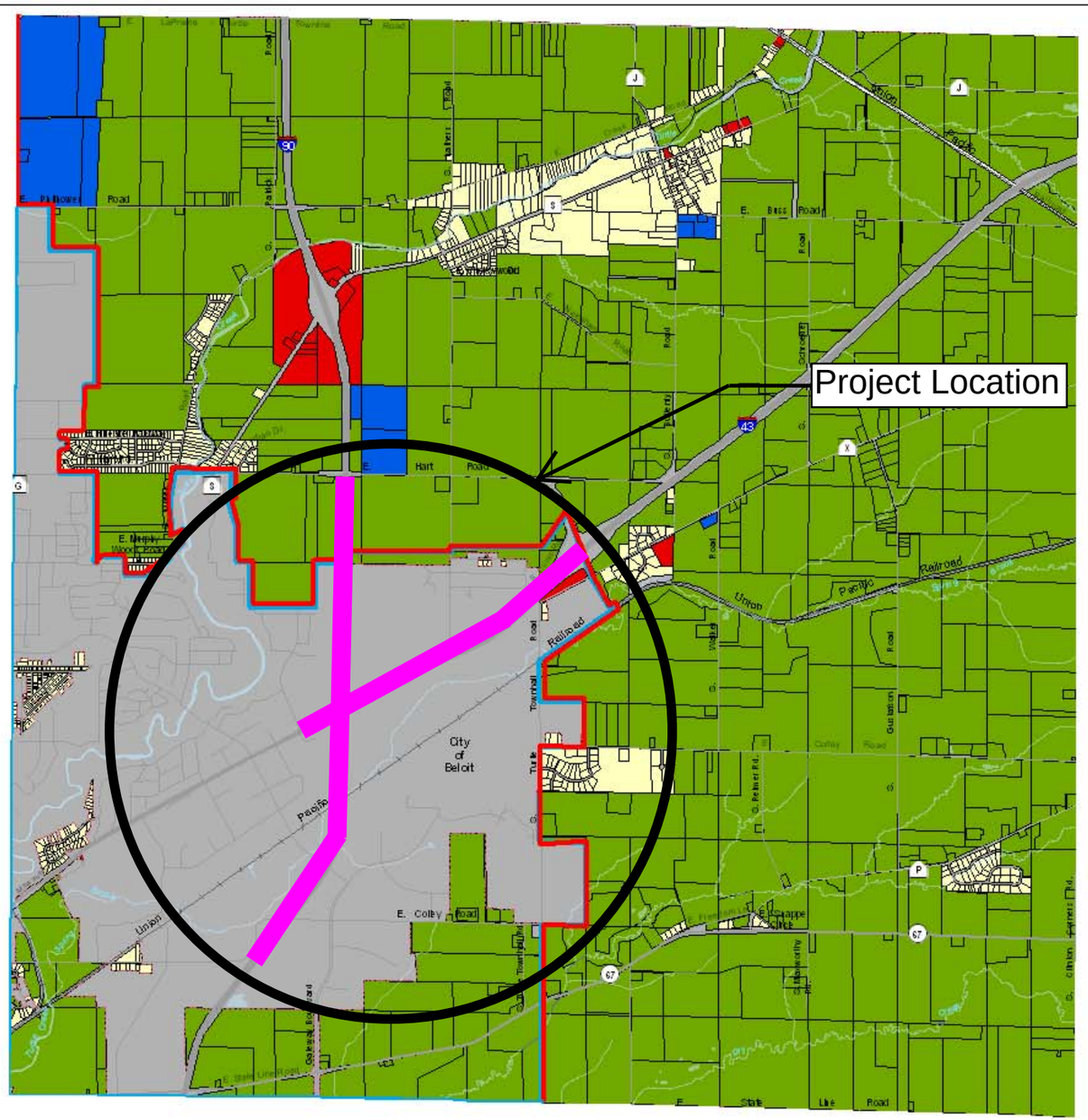
Vandewalle & Associates Planning · Creating · Rebuilding

City of Beloit
Comprehensive Plan
Map 10: Future Land Use

Revised 11/21/13

Map 6-2

Current Land Use



Town of Turtle
Rock County, Wisconsin
06/2009

- Coopertative Boundary
- Sewer Service Area

Land Use
- Agriculture
- Residential
- Commercial
- Industrial/Special Purpose
- Unclassified

- Town Boundary Lines
- Streams and Rivers
- Rivers and Lakes
- Railroads

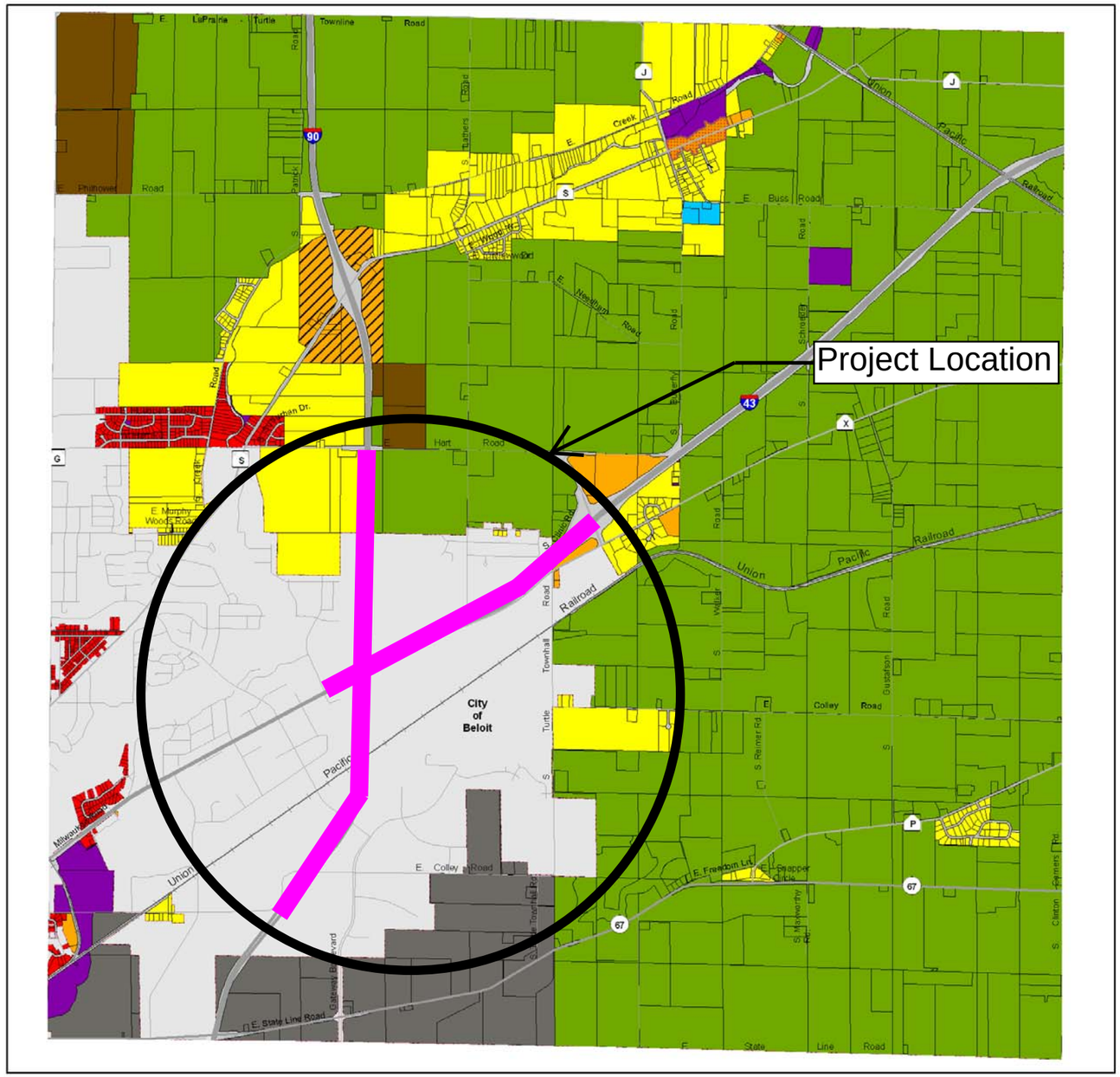
Roads
- Local Roads
- Interstate
- Highway
- County

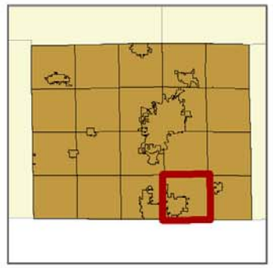
0 0.5 1 1.5
Miles

Rock County Geographic Information Systems (GIS)
Planning, Economic and Community Development Agency

Data Sources: Rock County Planning and Development Agency

Land Use Plan





Town of Turtle
Rock County, Wisconsin
02/26/2009

Future Land Use

- Urban Expansion
- Agriculture
- Urban Residential
- Rural Residential
- Park/Open Space
- Industrial
- Town Center: Mixed Use
- Commercial
- Commercial Highway
- Special Purpose
- Right of Way

- Town Boundary Lines
- Railroads

Roads

- Local Roads
- Interstate
- Highway
- County

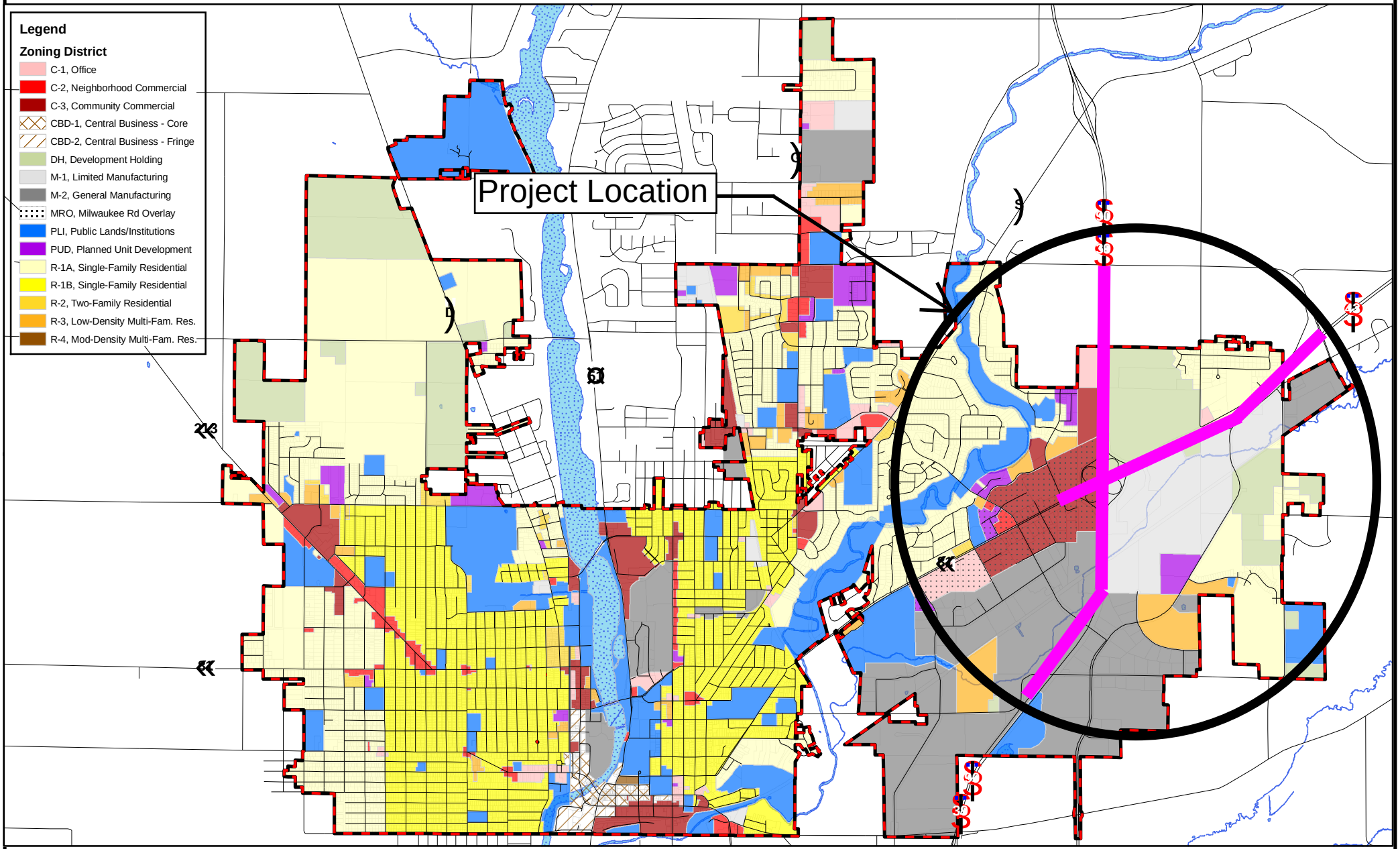
0 0.5 1 1.5
Miles

Rock County Geographic Information Systems (GIS)
Planning, Economic and Community Development Agency
51 S Main St, Janesville, WI 53545
(TEL) 608-757-5587, (FAX) 608-757-5586
email: Planning@co.rock.wi.us

Data Sources: Rock County Planning and Development Agency

Appendix 11 – Zoning Maps

City of Beloit Zoning Map



City of BELOIT, Wisconsin

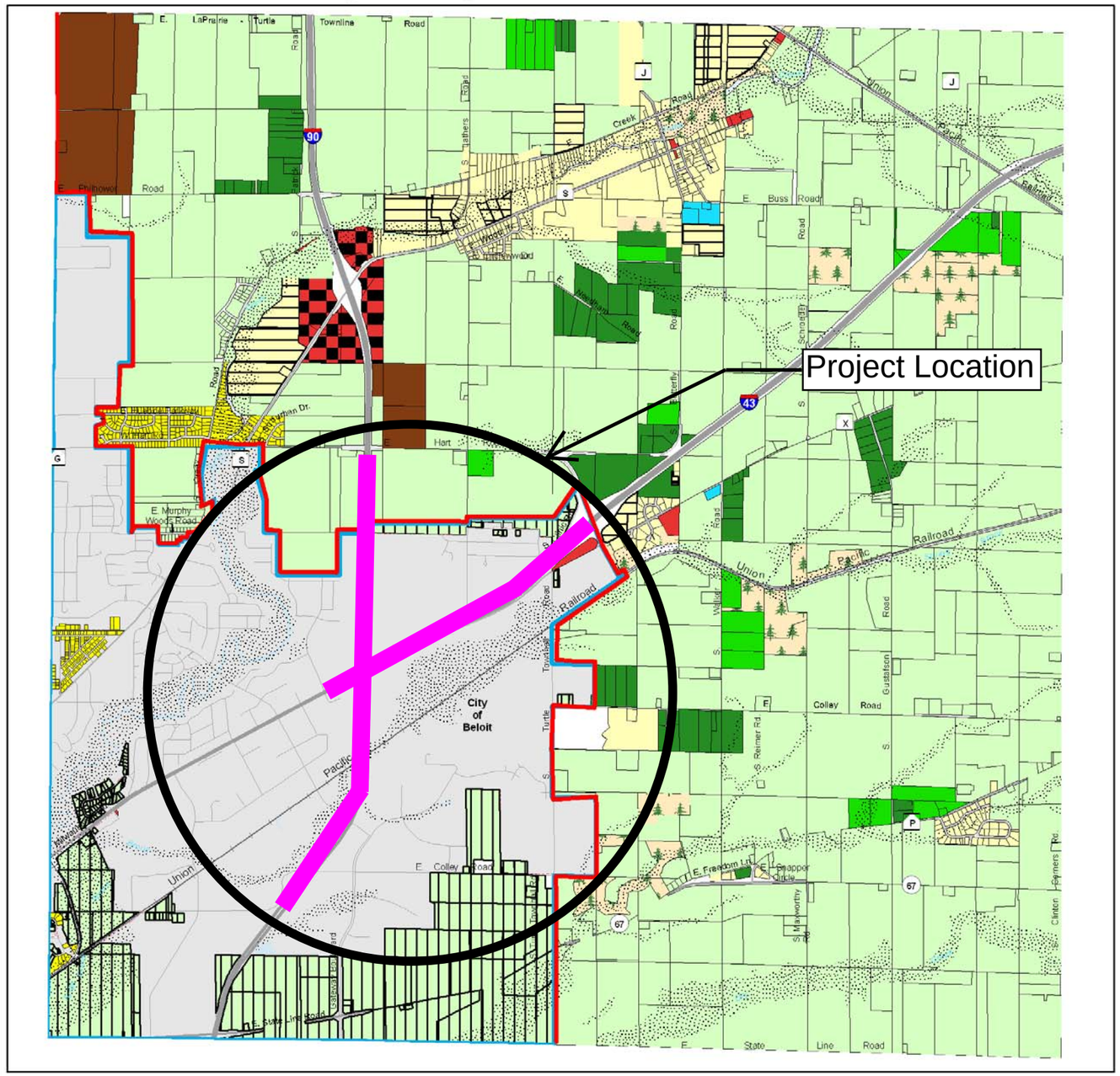
μ

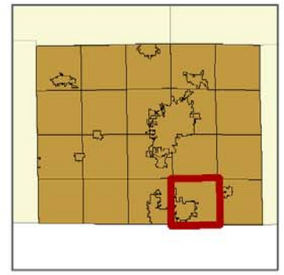
0 0.25 0.5 1 1.5 Miles

Map prepared by: Drew Pennington
Date: August 2011
For: City of Beloit Neighborhood Planning Division

Map 6-1

Official Zoning Map





Town of Turtle
Rock County, Wisconsin
2/26/2009

- Coopertative Boundary
- Sewer Service Area

Zoning District

- A1 - Exclusive Agriculture District
- A2 - General Agriculture Area
- A3 - Small Scale Agriculture Area
- RAT - Rural Agricultural Transition District
- UAT - Urban Agricultural Transition District
- RR - Rural Residential District
- R1 - Urban Residential District
- B1 - Local Commercial District
- CHI - Commercial Highway Interchange District
- M1 - Light Industrial District
- SP - Special Purpose District
- C2 - Highland Conservancy District
- C1 - Lowland Conservancy Overlay District

- Town Boundary Lines
- Streams and Rivers
- Rivers and Lakes
- Railroads

Roads

- Local Roads
- Interstate
- Highway
- County

0 0.5 1 1.5
Miles

Rock County Geographic Information Systems (GIS)
Planning, Economic and Community Development Agency
51 S Main St, Janesville, WI 53545
(TEL) 608-757-5587, (FAX) 608-757-5586
email: Planning@co.rock.wi.us

Data Sources: Rock County Planning and Development Agency

Appendix 12 – Local Government/Organization Correspondence

City of
BELOIT, Wisconsin
CITY MANAGER • CITY HALL • 100 STATE STREET • BELOIT, WI 53511
Office: 608/364-6614 • Fax: 608/364-6756
www.ci.beloit.wi.us
Equal Opportunity Employer

January 22, 2014

Mr. Steve Marshall, P. E.
I – 39/90 WisDOT South Segment Project Manager
Wisconsin Department of Transportation
111 Interstate Blvd.
Edgerton, WI 53534–93999

Subject: Project ID 1003 – 10 – 02
Illinois State Line to County 0
I– 39/90 and I – 43/WIS 81 Interchange
Rock County
City of Beloit Council resolution

Dear Steve,

Please find attached to this letter of transmittal a certified copy of a resolution unanimously adopted by the Beloit City Council at their regular City Council meeting held on Tuesday, January 21, 2014. The resolution identifies the City's preferred alignment for the above referenced interchange reconstruction. The City Council unanimously favored Alternative 2 either design option A or B depending upon cost, engineering design considerations and constructability. Alternative 2, of course, refers to the extension of Milwaukee Road through to Gateway Boulevard with ramps and interchanges as generally shown on the consultant's schematic, which was presented to the public at the December 10, 2013 meeting.

The City of Beloit very much appreciates the courtesy and consideration extended by your office and other officials within the agency to allow the City to participate in this infrastructure planning. This planned improvement will have a tremendous impact on the City of Beloit. We look forward to continuing our participation and the productive dialogue that has become routine during the design meetings.

Sincerely,

Larry N. Arft
City Manager

Cc: Mike Preboske, PE, AECOM, South Wisconsin Transportation Manager
Council President Charles Haynes and the Beloit City Council
Greg Boysen, Director of Public Works
Michael Flesch, City Engineer

City of
BELOIT, Wisconsin
CITY CLERK • CITY HALL • 100 STATE STREET • BELOIT, WI 53511
Office: 608/364-6680 • Fax: 608/364-6649
Equal Opportunity Employer
www.ci.beloit.wi.us

I, Rebecca Houseman LeMire, City Clerk of the City of Beloit, Rock County, Wisconsin, do hereby certify that the attached is a true copy of the Resolution supporting Alternates 2A or 2B for the Reconstruction of the I-39/90 and I-43/WIS 81 Interchange as presented by the Wisconsin Department of Transportation, as adopted by the Beloit City Council on Tuesday, January 21, 2014.

Rebecca Houseman LeMire
City Clerk

Dated at Beloit Wisconsin
this 22nd day of January 2014.

RESOLUTION
SUPPORTING ALTERNATES 2A OR 2B
FOR THE RECONSTRUCTION OF THE I-39/90 AND I-43/WIS 81
INTERCHANGE AS PRESENTED BY
THE WISCONSIN DEPARTMENT OF TRANSPORTATION

WHEREAS, the Wisconsin Department of Transportation has initiated the Interstate Highway 39/90 and Interstate Highway 43/WIS 81 Study, which in addition to other scheduled improvements, would reconstruct the existing cloverleaf interchange to be reconfigured into a free flow interchange for interstate to interstate movements; and

WHEREAS, the City of Beloit has been and remains committed to the continued vitality of businesses along the Milwaukee Road Corridor as well as in the Gateway Business area, the City will continue communication with businesses in both areas and will forward recommendations regarding signage and other issues of interest to local businesses to the State and Federal Agencies during the design process; and

WHEREAS, the Wisconsin Department of Transportation and their design consultants have identified five (5) potential options for the reconfiguration of the interchange as of December, 2013; and

WHEREAS, Alternative 2, which included an Option A and an Option B, would result in reconfiguration of the Interstate Interchange, including free flow lanes, but also extend Milwaukee Road (Hwy. 81) as a four-lane arterial road to intersect with the existing Gateway Blvd., east of the Interstate Highway; and

WHEREAS, Alternative 2 would result in southbound Interstate Highway 43 traffic exiting at what is now known as the Hart Road interchange, and Interstate 39/90 would have a full interchange near its' current location on Milwaukee Road, resulting in no significant reduction in traffic exiting the interstate highways in Beloit; and

WHEREAS, this alignment would better facilitate traffic movement in and out of the City's new Gateway Business Park and provide better linkages to the highway commercial district, which includes a number of hotels and restaurants and is located on the west side of the Interstate Highway; and

WHEREAS, Alternative 2, both options A and B, will also result in enhancing local traffic and improving connectivity between the east and west sides of the Interstate, further enhancing economic development opportunities near the Interstate interchange; and

WHEREAS, the City staff and the City Council have reviewed all of the alternatives and find Alternative 2, either options A or B, to be in the best long term interest of the City and wish to ensure that the Interstate reconstruction provides for enhancements to the City's local circulation system, as well as the safe movement of through traffic on the Interstate highway.

NOW THEREFORE BE IT RESOLVED, that the City Council finds Alternative 2, either options A or B, to be in the best interest of the City and encourages the Wisconsin Department of Transportation to focus additional study upon those options to select the Alternative 2 alignment, which is most cost effective, provides the safest, most efficient design alignment and minimizes inconvenience and traffic disruptions during construction.

BE IT FURTHER RESOLVED, that the City further encourages the Wisconsin Department of Transportation to complete the environmental study, preliminary design, and right-of-way acquisition needed for the project as soon as possible so the project can be let for construction bids at the earliest opportunity.

Adopted this 21st day of January 2014.

Charles M. Haynes, President

ATTEST:

Rebecca Houseman LeMire, City Clerk

I-90 Business Connection

MEMBERS

Beloit Snappers
Beloit RV
BMO Harris
Broaster Company
Bud Weiser Motors
Comfort Inn
Cornellier Superstore
Culver's
Econo Lodge
Enzyme Bio-Systems
Frito-Lay
Gonstead Chiropractic Clinic
Hampton Inn
Holiday Inn Express
Hormel
Jackson Monument
McDonald's
Pilot Oil
Road Dawg
Summit Machine
Speedway
Versatool Manufacturing
Wendy's Restaurant

AFFILIATES

Beloit Daily News
Beloit Shopping News
City of Beloit
Greater Beloit Chamber of Commerce
WBEL Radio
WGEZ Radio

To: Wisconsin Department of Transportation

On February 18, 2014 the I-90 Business Connection held a meeting to discuss future I90 / I43 interchange reconstruction. Two items that were highly important to our group were the use of roundabouts and where Hwy 81 would begin coming into Beloit westbound from I-43

After a long discussion the group passed two resolutions supporting the following suggestions to the Wisconsin Department of Transportation.

RESOLUTION #1
The use of traffic signals where needed instead of roundabouts. If roundabouts were used in the reconstruction passengers coming into our corridor would have to pass through SIX roundabouts coming into Beloit from I-43.

RESOLUTION #2
Have Hwy 81 start at the off ramp located on I-43. We feel this is necessary to have people coming into Beloit from the east know this exit will get them into Beloit. This should also help people going to south-western Wisconsin that are familiar with Hwy 81 that takes them that direction.

If you have any questions about our meeting or resolutions we have proposed, please don't hesitate to call my office at:

Brad Lawver
President I-90 Business Group
608-362-0555
Thanks for your time.

Sincerely,

Brad Lawver

Appendix 13 – Wisconsin Department of Natural Resources Correspondence

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Mark Aquino, Regional Director
Telephone 608-275-3266
FAX 608-275-3338
TTY Access via relay - 711

January 7, 2014

Steve Marshall
DOT Project Manager
DTSD SW Region - Madison Office
2101 Wright Street
Madison, WI 53704

Subject: **DNR Comments on I-39/90 and I43 Interchange Environmental Analysis (EA) Scoping, Project ID 1003-10-02, Rock County**

Dear Mr. Marshall:

The Department has received the information you provided for the Environmental Analysis (EA) scoping for the I-39/90 and I43 Interchange reconstruction project. The study limits are the CTH S interchange to the north, IL-75 interchange to the south, WIS 140 interchange to the east, and Cranston Road to the west. This interchange was previously in the I-39/90 EA and received a Finding of No Significant Impact (FONSI) from the Federal Highway Administration (FHWA) on October 1, 2010. Due to proposed project changes altering the project scope and which increase environmental impacts of the I-39/90 Corridor, FHWA and WisDOT have concluded to address this interchange as a stand-alone EA.

The Department has received the information about the project and we appreciate WisDOT's efforts to seek early stakeholder input and inform the public during the planning stages of this proposal. We look forward to reviewing the EA when it is available. We have the following comments on the project scoping:

1. Public Lands

There are no public lands located within or near the project area.

2. Wetlands

There may be wetland resources near the project area, including near Spring Brook. A wetland delineation was completed during the spring of 2012 and concurrence with the report was provided by the DNR on December 3, 2012. It is our understanding that the interchange reconstruction project will avoid impacts to wetlands. We would not expect there to be impacts to wetlands near the project area as long as proper erosion control measures are in place during and after construction and contractors do not store equipment or temporary soil piles within wetland areas.

3. Waterways

Spring Brook is located in the southeastern quadrant of the interchange. This waterway is considered to be an area of special natural resource interest (ASNRI) by the Department because of an occurrence of a State

Threatened fish that has been identified in this waterway in the past. Spring Brook is a warm water fishery and all in-stream work and work that has the potential to adversely affect the water quality of the stream should be completed between June 15 and September 15. Work in other areas may continue beyond September 15 provided appropriate measures are taken to control erosion.

This waterway is not commonly used by recreational watercraft. It will not be necessary to place navigational aids during construction.

4. Endangered Resources

A Natural Heritage Inventory review of rare and endangered species and sensitive communities was completed for the project area. The review identified one fish, the Ozark Minnow (*Notropis nubilus)*, within the project area. This Ozark Minnow, a State Threatened fish, prefers clear, small to medium, low-gradient streams over bottoms of cobble. Spawning occurs from May through early August. The Department will initiate coordination with Lisie Kitchel, Bureau of Natural Heritage Conservation.

5. Stormwater (TMDL)

The project corridor is located in the Rock River basin, which has a Total Maximum Daily Load (TMDL) for total phosphorus (TP) and total suspended solids (TSS). It is our understanding that TMDL waste load allocations for TP and TSS will apply to this interchange reconstruction project. Specific requirements of the TMDL and storm water management practices applied will be determined during project design and submitted to this office for review.

6. Upland Habitat

There is an upland prairie restoration located on the Kerry property to the southeast of the existing interchange. It appears that several of the alternatives may impact this area. The EA should review and consider impacts to this prairie restoration as part of the alternatives analysis.

7. Floodplains

The Spring Brook floodplain is located in the southeast quadrant of the Interchange. In order to meet the standards of NR 116, Floodplain Management, a hydraulic and hydrologic analysis must be conducted for the 100-year flood event for any new structure or existing structure that is not being replaced “in-kind” within a mapped floodplain. These results must be submitted to the Department and the plans for structures must comply with the provisions of the local community's floodplain zoning ordinance. For project-specific information, please consult with the Rock County Zoning Administrator.

For areas lying outside mapped/zoned floodplain, DNR may request the results of DOT flow and backwater calculations.

Invasive species & VHS

Adequate precautions should be taken to prevent transporting or introducing invasive species via construction equipment, as provided under NR 40, Wis. Administrative Code. This website provides further information and lists those species classified as Restricted or Prohibited under NR 40: http://dnr.wi.gov/invasives/classification/.

The Department will work with project managers to help identify specific locations of problem areas across the project site and to recommend preventive measures. The following Best Management Practices (BMPs) for rights-of-way provide a series of measures that will ensure reasonable precautions are taken throughout the stages of construction: http://council.wisconsinforestry.org/invasives/transportation/pdf/ROW-Manual.pdf

- **Oak Wilt:**
  This project involves work that may involve cutting or wounding of oak trees. To prevent the spread of oak wilt disease, please avoid cutting or pruning of oaks from April through September. See the DNR webpage at: http://dnr.wi.gov/forestry/fh/oakWilt/index.htm#causes

- **Emerald Ash Borer:**
  This project has the potential for spreading the Emerald Ask Borer (EAB) beetle. It is illegal to move or transport ash material, the emerald ash borer, and hardwood debris (i.e. firewood) from EAB quarantined areas to a non-quarantined area without a compliance agreement issued by WI Department of Agriculture, Trade and Consumer Protection. Regulated items include cut hardwood (non-coniferous) firewood, ash logs, ash mulch or bark fragments larger than on inch in diameter, or ash nursery stock (DATCP statute 21).

  For more information regarding the EAB and quarantine areas please follow the links below.

  http://datcpservices.wisconsin.gov/eab/articleassets/WI_EAB_Quarantines_and_Locations.pdf
  http://datcpservices.wisconsin.gov/eab/index.jsp

For work involving water bodies:

All equipment must be properly cleaned and disinfected to address the spread of invasive species and viruses. Special provisions should require contractors to implement the following measures before and after mobilizing in-water equipment to prevent the spread of Viral Hemorrhagic Septicemia (VHS), Zebra Mussel, and other invasive species. Follow **STSP 107-055** Environmental Protection – Aquatic Exotic Species Control, which includes the protocol found here: http://dnr.wi.gov/fish/documents/disinfection_protocols.pdf

For up to date information on invasive species and infested waters go to
http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx

Thank you for the opportunity to review this proposal and comment during the early planning stages. If any of the concerns or information provided in this letter requires further clarification, please contact this office at 608-275-3301.

Sincerely,

Eric Heggelund

Eric Heggelund
Environmental Analysis & Review Specialist

CC: Jenny Grimes, WisDOT
Russ Anderson, WDNR

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

May 19, 2014

Steve Marshall
DOT Project Manager
DTSD SW Region – Madison Office
2101 Wright Street
Madison WI 53704

Subject: **DNR Review and Comments**:
Purpose and Need and Alternatives Development
Project I.D. 1003-10-01/02
I-39/90 Project – South Segment
I-43/WIS 81 Interchange

Dear Mr. Marshall:

We have received the information for the I-39 & I-43 Interchange that was provided on March 13, 2014 and discussed at the agency meeting on March 25, 2014. The information submitted included the project purpose and need for the proposed action and the range of alternatives. The Wisconsin Department of Natural Resources (WDNR), as a Cooperating Agency, has jurisdiction and special expertise with respect to environmental impacts involved in the proposed project and will provide input throughout the environmental process. As a policy, we will review and provide comments and point out concerns, but we do not grant concurrence or denial until the draft EA (Environmental Analysis) is complete and released for public comment. We have reviewed the submitted documents and provide the following comments regarding the purpose and need and range of alternatives:

Purpose and Need:

The EA evaluation states that the purpose of the proposed I-39/I-43 Interchange reconstruction is to upgrade the interchange to meet current design standards, improve overall safety, accommodate future traffic with an acceptable Level of Service (LOS), replace aging pavements and structures, and enhance local mobility to the city of Beloit. The document goes on to detail the need to maintain the interchange as an important connector route, size the interchange for increased traffic capacity, and improve safety and other interchange deficiencies. At this time, we have no comments related to the purpose and need for this project.

Alternatives:

Six alternatives were presented in the EA evaluation:

- No Build
- Alternative 1A – Maintain existing access location, no local road extension, I-39/90 relocated to east
- Alternative 1B – Maintain existing access location, no local road extension, I-39/90 is NOT relocated
- Alternative 2A – Provide additional local road access to Gateway Blvd., moves Beloit access from/to I-43 to the County X / Hard Road interchange, I-39/90 relocated to east
- Alternative 2B – Provide additional local road access to Gateway Blvd., moves Beloit access from/to I-43 to the County X / Hard Road interchange, I-39/90 is NOT relocated

- Alternative 3B – Provide additional local road access to Gateway Blvd., moves Beloit access from/to I-43 east of existing location, I-39/90 is NOT relocated

The preferred alternative will be presented in the Final EA. For the draft EA, WisDOT and FHWA have identified a recommended alternative to address the current and long-term needs in the corridor. The recommended alternative is a modification of Alternative 2A, in which roadway alignments have been altered. We believe that the range of alternatives considered -- No Build, Alternative 1A, Alternative 1B, Alternative 2A, Alternative 2B, and Alternative 3B -- are adequate for this study. If substantial changes or new information regarding the alternatives is brought forward as the project planning progresses, the adequacy of the alternatives may be reconsidered. We may provide further review and comment on the alternatives and their environmental impacts when the complete EA is released.

We have the following comments regarding the alternatives included in the study and potential environmental impacts:

Wetland Impacts:

Wetlands have been identified within the project area and all wetland impacts must be avoided and/or minimized to the greatest extent possible. We understand that wetland avoidance measures have been implemented during the development of alternatives and additional measures may be included as the project development continues. We have some comments regarding wetlands within this corridor and additional avoidance measures that we believe should be considered for inclusion in the EA:

Wetland R-30 and Wetland R-31
There are two wetlands that have been identified as being located within the footprint of the interchange project. Wetland Delineation reports were submitted to the Department in January 2014, and we intend to field verify the reports now that the field conditions are appropriate. Comments related specifically to the wetland delineations will be provided as soon as possible.

Wetland R-30 is described as a 0.18 acre shallow marsh with low functional value. Documentation has been provided indicating that wetland R-30, located on the south side of Gateway Boulevard, is an engineered detention pond. Presumably, this engineered pond was placed for storm water treatment and if this pond is impacted, an equivalent post-construction storm water treatment system must be put in place to treat storm water runoff to the same degree as the existing practice. Wetland R-31 is described as a 0.59 acre wet meadow with low functional value. Recommended Alternative 2A (modified) is expected to impact a large portion, if not all of Wetland R-31, located in the northwest quadrant of the interchange. Probable wetland impacts and any mitigation details should be detailed in the draft EA document.

Floodplain Impacts:
The Spring Brook floodplain is located in the southeast quadrant of the interchange footprint. Preliminary information indicates that floodplain encroachment will occur for all alternatives. It has been estimated that Alternative 2A (modified) will encroach on 2.0 acres of floodplain, with a goal to replace the lost floodplain area within the interchange footprint. In order to meet the standards of NR 116, Floodplain Management, a hydraulic and hydrologic analysis must be conducted for the 100-year flood event for any new structure or existing structure that is not being replaced “in-kind” within a mapped floodplain. These results must be submitted to the Department and the plans for structures must comply with the provisions of the local floodplain zoning ordinance.

Waterway Impacts:
Alternative 2A (modified) includes a bridge crossing over Spring Brook in the southeast quadrant of the interchange. Spring Brook is classified by the Department as an Area of Special Natural Resources Interest

(ASNRI), due to the presence of threatened fish. Implementation of appropriate best management practices (BMPs) should be considered in the EA process

Storm water:

Storm water management and surface water quality protection should receive attention in the EIS. Any build alternative will include increases in impervious surfaces and have the potential to increase runoff and contribute pollutants to receiving waters. Potential storm water treatment practices and efficiency should be addressed in the EA.

Additionally, this site is located within the Rock River Basin TMDL implementation area. Any areas of the project that are within or adjacent to the 2010 Urbanized Area must meet the TMDL Waste Load Allocation (WLA).

Endangered Resources:

An initial review of the Natural Heritage Inventory of rare and endangered species was conducted for this project. A State Threatened fish was listed within the I-39/I-43 interchange project area. The Department will work with the Bureau of Natural Heritage Conservation to determine whether any additional surveys or follow-up action is warranted.

Thank you for the opportunity to participate in the planning stages of this project. If any of the concerns or information provided in this letter requires further clarification, please contact this office at 608-275-3485.

Sincerely,

Laura Bub
Environmental Analysis & Review Specialist

CC: Jenny Grimes, WisDOT Environmental Coordinator
Russ Anderson - SCR

Tkachuk, Tyler

From: Bub, Laura A - DNR <Laura.Bub@wisconsin.gov>
Sent: Wednesday, June 18, 2014 11:35 AM
To: Grimes, Jennifer - DOT
Cc: Kitchel, Lisie E - DNR; Anderson, Russell A - DNR
Subject: DNR Wetland Delineation Concurrence for 1003-10-01, 1003-10-02, and 3621-00-06

Hi Jenny,

The Department has reviewed the wetland delineation reports dated January 28, 2014 for the following projects, and we concur with the wetland boundaries as presented.

1003-10-01: South Segment, State Line to CTH O
1003-10-02: 1-43 Interchange Reconstruction
3621-00-06: Hart Road, CTH S to CTH X

The endangered resource field reports are currently being reviewed by Department endangered resource staff, and I will provide you with any comments on those as soon as I receive them.

Laura

Laura Bub
Environmental Analysis and Review Specialist
Wisconsin Department of Natural Resources
3911 Fish Hatchery Rd., Fitchburg, WI 53711
phone: (608) 275-3485
e-mail: laura.bub@wisconsin.gov
Find us on Facebook: www.facebook.com/WIDNR

Flood Storage District (FSD) Agency Meeting

Meeting Minutes

IH 39 / IH 43 INTERCHANGE

Rock County

IH 39 / USH 12 INTERCHANGE

Dane County

Date: August 26, 2014
Time: 1:30 PM
Location: GEF- 2 Room 308

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1. Introductions (sign in sheet)

2. Meeting Purpose (Jacobson)

    a. Overview of NR 116 legislative code / approval process
    b. Modeling methodology
    c. Agency involvements
    d. Project specific impacts

3. NR 116 Legislative Code Overview

4. Modeling Methodology

5. Submittals
    a. When impacting a FSD what is DNR going to require for submittal?
        i. Forms
        ii. Technical data
        iii. Electronic data
        iv. Memorandum

6. Approval Process
    a. Vary project to project depending on history and other ongoing modifications?
    b. If no CLOMR / LOMR are in effect what is WDNR approval process and timeline?
        i. What is the process for municipality to adopt, administer, and enforce floodplain zoning ordinances?
        ii. How the municipalities are made aware of these flood storage districts / areas?

7. Technical Project I43 / I39 Interchange (Jacobson)
    a. Two areas of impacts, 9 acre-feet storage proposed impacts
    b. Preliminary mitigation options
        i. Infiltration if above ground water elevation
    c. Hydraulic conveyance requirements for off-line storage areas (infields)

8. Technical Project I39 / USH 12 Beltline Interchange (Grimes)

Meeting Minutes Notes:

Mr. Theran Jacobson, AECOM I39 Design Team Drainage Lead
Mr. Chris Olds, WDNR Floodplain Engineer
Mr. Chad Heimerl, WDNR Floodplain Engineer
Ms. Miriam Anderson, WDNR Floodplain Management Specialists
Mr. Robert Davis, WDNR Floodplain Engineer
Mr. Bradley Wing, WDNR Engineering Intern
Ms. Laura Bub, WDNR, WisDOT Transportation liaison
Ms. Ann-Marie Kirsch, WisDOT Statewide Drainage Engineer
Ms. Jennifer Grimes, WisDOT Environmental Coordinator, I39 CMT
Mr. Matt Able, WisDOT

Note taker: Mr. Jacobson

Mr. Jacobson started with introductions.

Sign in sheet passed around, see attachment for attendees.

Mr. Jacobson provided brief statement for the meeting purpose:

a. Overview of NR 116 legislative code
b. Flood Storage District (FSD) Modeling methodology
c. Agency involvements
d. Submittal requirements
e. Communication between consultants, agencies, project coordinators.
f. Project specific impacts

Mr. Olds (WDNR) gave an overview of NR 116 and the WDNR involvement with flood storage districts.

a. Overview of NR 116 legislative code
   i. WDNR objective is to aid in the review and approval flood plain modifications that will affect the floodway boundary (FW) and / or base flood elevations (BFE), and ordinances for compliance with NR 116.

   ii. All projects that affect FW and / or increase the BFE are subject to FEMA review and approval.
      a. If FW is modified and / or there is a BFE increase, a Conditional Letter of Map Revision (CLOMR) application is required 1 year prior to the construction project starting from FEMA and a Letter of Map Revision (LOMR) application is required within 6 months of project completion.
      b. If the FW remains within the mapped boundaries and / or BFE are decreased, a Letter of Map Revision (LOMR) is required from FEMA.

   iii. Enforcement of floodplain studies such as Flood Insurance Study (FIS) and or FSD are conducted at the local level.
      a. WDNR reviews the studies on behalf of NR 116.
      b. WDNR will also approve language to update the ordinance.
      c. Local municipality (County, City, Town, Village, etc) must adopt the FIS, FSD, or other flood mapping modifications for WDNR to enforce NR 116 for that local municipality.
      d. Adoption of any stormwater report or mapping is typically completed in the zoning ordinance, though this may vary from community to community.
      e. WDNR has a copy of all local ordinances enforcing flood studies; past and present, see Action Items section
      f. If a local community creates a FSD and does not adopt the study in the ordinance, no enforcement actions by the WDNR can be made regarding protection of the FSD.
      g. Ordinance language needs to be consistent between studies and mapping. The ordinance needs to reference the approved study and maps. This creates the regulatory language in the ordinance.

   iv. Mitigation for FSD
      a. There must be a 1:1 tradeoff between flood storage volume filled and compensatory storage provided within the same subwatershed for that reach of the river system.
      b. If a 1:1 fill / cut volume balance cannot be obtained, a hydraulic analysis [evaluated by what agency – WDNR?] will be required to determine if the flood storage removed has effect BFE's. See NR 116.11 (2) (e).

c. The compensatory storage volume analysis shall include the area and volume filled with the calculations showing the mitigation area and storage volume. Consultants should include tables and figures supporting the mitigation effort.
d. Temporary compensatory storage during the construction phase will not be required per Mr. Olds.

v. WDNR data storage
   a. This is a work in progress with the FSD currently. There is currently no way to obtain electronic data from WDNR surface water data viewer for the FSD.
   b. Individuals can contact WDNR to obtain files as necessary. Mr. Olds to provide mapping to CMT, see Action Items section.

b. Modeling methodology
   i. Traditional hydraulic modeling doesn't account for the peak flow reduction that would occur by including flood storage. The FSD purpose is to take into account flood storage outside of the floodway to reduce flood flows downstream and ultimately reduce the BFE.
   ii. The modeling is completed by a Hydraulic Engineering Center (HEC) software packages.
      a. The FSD methodology is to include the flood storage volume in the hydrologic model and including the storage volume in the routing calculations through the drainage system to decrease peak flows downstream, ultimately reducing BFEs. Very similar approach to modeling a detention pond, just on a large scale.

c. Agency involvements
   i. Future communications between agencies need to include the WDNR liaison and WisDOT Regional Environmental Coordinator as well as the WisDOT Drainage Engineers on issues and the creation of new regulations.
   ii. Ms. Kirsch is working to develop a statewide policy within the bounds of the DOT/DNR Cooperative Agreement on how WisDOT will work with FEMA and the local communities.
   iii. WisDOT is in the process of updating the FDM – all floodplain encroachments and impacts will go to the WisDOT Statewide Drainage Engineer for review for all projects.
   iv. WisDOT project managers should communicate directly with municipal Administrators or Mayor about zoning requirements related to floodplains or stormwater studies adopted at the local level. These individuals may not have direct knowledge of the governing requirements within the ordinance, so future communication channels will need to be addressed at the start of the project planning stage. Further discussion is needed on this issue.

d. Submittal requirements
    i. No application forms such as FEMA forms are currently required by WDNR.
    ii. Submittal should include the following:
        a. Memorandum of the project and effects with numerical calculations.
        b. Maps of the project (pre and post project conditions).
        c. Electronic models if necessary.
        d. Surfaces of pre and post project conditions, in CADD or GIS format.
        e. Preliminary design plans.
    iii. Not all FSD impacts may change FEMA FIRM maps, but if they do, FEMA should be notified.

e. Communication between consultants, agencies, project coordinators.
    i. See Agency involvements above.

f. Project specific impacts

    i. Ms. Kirsch discussed the interchange of I39 and USH 12 in Dane County.
        a. CLOMR issues with modeling matching peak flows, Ms. Kirsch to discuss with WDNR after meeting.
        b. Ms. Kirsch has been unable to correlate the adopted information in the ordinance with whatever mapping of the FSD created by City of Madison is available. Badger Interchange (BIC) area was not included in the City of Madison LOMR in 2006.
        c. If relocating a stream and staying within the floodway, do no need to update the model for FEMA. If going outside the floodway, a LOMR will be required.

    ii. Mr. Jacobson discussed the interchange of I39 and I43 in Rock County.
        a. Presented figures showing the FSD filling impacts.
        b. Presented the I43 interchange selected alternative layout by WisDOT.
        c. For this FSD, the storage impact is approximately 9.6 acre-ft of storage volume. Constraints are: area and elevation.
        d. Mr. Jacobson presented two concepts for flood storage mitigation.
            1. The Infiltration concept would be as follows:
                a. Finished grade (walking surface) of facility will be X-feet below the lowest outlet pipe elevation. The depth will be determined during design. This is the compensatory storage mitigation volume.
                b. The facility will utilize the sandy soils in the area to discharge the storage mitigation volume.
                c. Mitigation volume will be all above grade; no fractional storage from underlying areas will be considered.
                    i. Soil borings will be conducted to determine soil infiltration capacity and ground water levels. The WDNR noted that the borings should be

done during moderately wet periods and not in the fall or winter when groundwater levels are low.

2. The Infield mitigation concept would be as follows:
    a. Utilize low lying areas of the infield areas of the interchange to provide storage.
    b. Place equalization pipes under roads between the storage areas to combine separate infields into the total storage area volume.
    c. The concept will provide positive drainage by existing and proposed pipe invert elevations. Mitigation volume will be all above grade.

e. After discussion, both concepts were determined to be acceptable approaches for flood storage mitigation.
f. Mr. Jacobson noted that the mitigation volume would be calculated in addition to the storage requirements for the local stormwater management that will occur at the interchange.

Status of the Rock County FSD:

1. Created by WDNR.
2. FSD mapping and modeling is anticipated to be adopted by communities in the FSD boundaries in 2015.
3. Data will be stored [or found] at the local, municipal level for obtaining copies and viewing purposes.

Action Items:

- Ms. Anderson will check for the City of Madison and Dane County Ordinances and Maps and provide to WisDOT. Dane County ordinance will be in effect on 9/17/14.
- Mr. Olds to provide FSD mapping to WisDOT (electronic files and PDF of mapping) for the I39 corridor in Dane and Rock Counties

All Action item data requests can be sent to the following:
Ms. Laura Bub, WDNR, WisDOT Transportation liaison
Ms. Ann-Marie Kirsch, WisDOT Statewide Drainage Engineer
Ms. Jennifer Grimes, WisDOT Environmental Coordinator, I39 CMT
Mr. Theran Jacobson, AECOM I39 Design Team Drainage Lead
Mr. John Voorhees, AECOM, CMT Stormwater Engineer

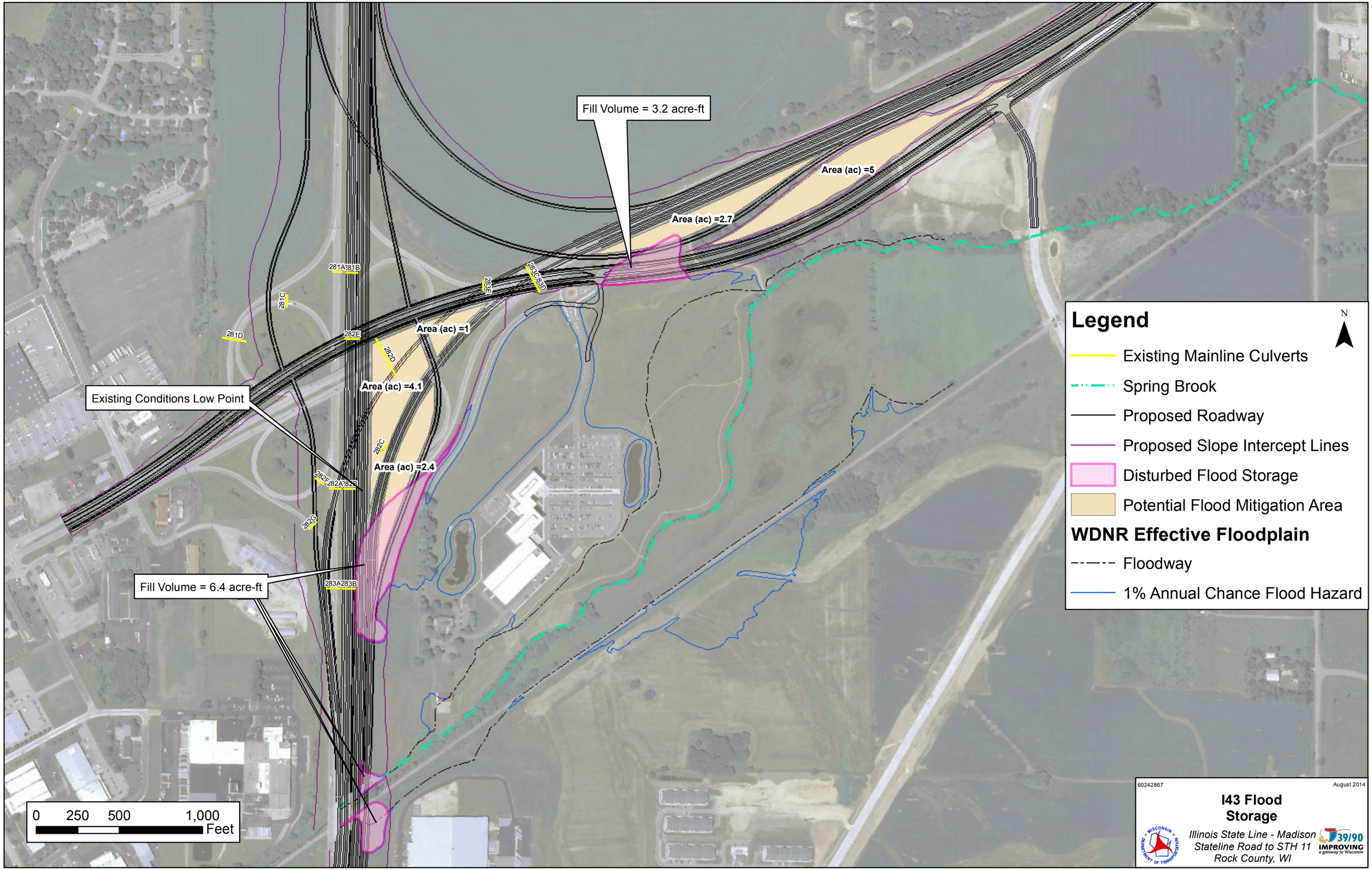
Adjourned, 3:10pm

Encl:
Sign in sheet, 1 page
Figures, 5 pages

Flood Storage District Meeting
for
I-39 Corridor (Madison to State Line)

August 26, 2014 at 1:30pm GEF-2 Room 308

Name	*Representing*	*Telephone No.*	*E-mail Address*
Theran Jacobson	AECOM – I39 South	608-828-8122	theran.jacobson@aecom.com
Chris Olds	DNR	608-266-5600	christopher.olds@wi.gov
CHAD HEIMERL	DNR	608-267-5751	chad.heimerl@wi.gov
Miriam Anderson	DNR	608-266-5228	miriam.anderson@wi.gov
Matt Albe	DOT	608-266-8483	matthew.albe@dot.wi.gov
Ann-Marie Kirsch	DOT	608 267 3766	AnnMarie.E.Kirsch@dot.wi.gov
ROB DAVIS	DNR	608-275-3316	Robert.Davis@Wisconsin.gov
Bradley Wing	DNR	608-712-1877	
JENNIFER GRUES	WISDOT	608.884.1447	JENNIFER.GRUES@DOT.WI.GOV
Laura Bub	DNR	608.275.3485	Laura.Bub@Wisconsin.gov


Fill Volume = 3.2 acre-ft
Area (ac) =5
Area (ac) =2.7
Area (ac) =1
Area (ac) =4.1
Area (ac) =2.4
Existing Conditions Low Point
Fill Volume = 6.4 acre-ft
281A
281B
281C
281D
282E
282D
282C
282F
282A
282B
282G
283E
283D
283A
283B
0 250 500 1,000 Feet
N
Legend
Existing Mainline Culverts
Spring Brook
Proposed Roadway
Proposed Slope Intercept Lines
Disturbed Flood Storage
Potential Flood Mitigation Area
WDNR Effective Floodplain
Floodway
1% Annual Chance Flood Hazard
60242867
August 2014
I43 Flood Storage
Illinois State Line - Madison
Stateline Road to STH 11
Rock County, WI
WISCONSIN DEPARTMENT OF TRANSPORTATION
39/90 IMPROVING a gateway to Wisconsin

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

WETLAND LOCATIONS

CITY OF BELOIT

MILWAUKEE ROAD

FREEMAN PKWY

E. HART RD

CRANSTON RD

39

90

81

43

R-31

R-30

S2

S3

TRIBUTARY TO SPRING BROOK (S2)

SPRING BROOK (S3)

KERRY INGREDIENTS & FLAVOURS

WIS 81/MILWAUKEE ROAD EXTENSION

MILLINGTON ROAD

GATEWAY BLVD

CANADIAN PACIFIC RAILROAD

COUNTY X

N

LEGEND

- WETLANDS
- WETLAND IMPACTS
- PROPOSED BRIDGES
- EXISTING PARCEL BOUNDARY
- FLOODPLAIN
- FLOOD STORAGE
- PROPOSED RIGHT-OF-WAY
- STREAMS/WATERWAYS/ AGRICULTURAL DITCHES

SCALE 0 500' 1000'

Appendix 14 – State Historic Preservation Office Correspondence

14-0295/RO

SECTION 106 REVIEW
ARCHAEOLOGICAL/HISTORICAL INFORMATION

Wisconsin Department of Transportation
DT1635 11/2006

For instructions, see FDM Chapter 26

I. PROJECT INFORMATION

Project ID 1003-10-02	Highway - Street I-39/90 and I-43/WIS 81	County Rock
Project Termini Project Study Limits: WisDOT Welcome Center to E. Hart Road along I-39/90 and along I-43/WIS 81 from Freeman Parkway to CTH X/Hart Road Interchange		Region - Office Southwest
Regional Project Engineer - Project Manager Steve Marshall		Area Code - Telephone Number 608-246-5350
Consultant Project Engineer - Project Manager Michael Preboske		Area Code - Telephone Number 414-944-6139
Archaeological Consultant Great Lakes Archaeological Research Center, Inc.		Area Code - Telephone Number 414-481-2093
Architecture/History Consultant Great Lakes Archaeological Research Center, Inc.		Area Code - Telephone Number 414-481-2093
Date of Need May 1, 2014		SHSW # 14-0295/RO
Return a signed copy of this form to:		

II. PROJECT DESCRIPTION

Project Length 4.6 miles	Land to be Acquired: Fee Simple 88 acres	Land to be Acquired: Easement 1 acre

Distance as measured from existing centerline	Existing	Proposed	Other Factors	Existing	Proposed
Right-of-Way Width I-39/90 & I-43	Varies to 250'	Varies to 975'	Terrace Width Rural Freeway	NA	NA
Shoulder I-39/90 & I-43	Varies to 120	Varies to 570'	Sidewalk Width Rural Freeway	NA	NA
Slope Intercept I-39/90 & I-43	Varies to 240	Varies to 965'	Number of Lanes I-39/90 & I-43	4	6
Edge of Pavement I-39/90 & I-43	NA	Varies to 560'	Grade Separated Crossing I-39/90 & I-43	Yes	Yes
Back of Curb Line Rural Freeway	NA	NA	Vision Triangle NA acres	NA	NA
Realignment	0	Varies to 550	Temporary Bypass NA acres	NA	NA
Other - List:			Stream Channel Change	☐ Yes	☒ No
Attach Map(s) that depict "maximum" impacts.	☒ Yes	☐ No	Tree topping and/or grubbing	☒ Yes	☐ No

Brief Narrative Project Description - Include all ground disturbing activities. For archaeology, include plan view map indicating the maximum area of ground disturbance and/or new right-of-way, whichever is greater. Include all temporary, limited and permanent easements.

The Section 106 for the I-39/90 Corridor expansion (WisDOT ID# 1001-07-00, SHSW# 07-0240/DA/RO) project was approved by a letter from SHPO on December 3, 2007. An Environmental Assessment (EA) for the IH 39/90 corridor from USH 12/18 (Madison Beltline) to the border with Illinois was signed on July 29, 2008. The Finding of No Significant Impact (FONSI) was signed by FHWA on October 1, 2010, with an effective date of October 19, 2010.

In 2012, WisDOT initiated an I-39/90 EA re-evaluation of the 2010 EA/FONSI to document the changes in environmental impacts from the 2010 identified preferred alternative to the current 2013 proposed improvements and to evaluate

whether the FONSI remains valid. This re-evaluation includes all 45.5 miles of project ID 1001-07-00, except for the I-43 and US 12/18 interchanges. These two interchanges are now being studied as stand alone projects and the results of the studies will be documented in separate EA's for each of the projects. The re-evaluation addresses adding a lane in each direction through each interchange and appropriate ramp designs to keep the interim interchanges operable.

Due to proposed project changes altering the project scope and environmental impacts at the I-43 interchange (under project ID 1001-07-00), FHWA and WisDOT have concluded that addressing the I-43 system interchange as a stand-alone National Environmental Policy Act (NEPA) document would be appropriate. In 2013, WisDOT initiated project ID 1003-10-02 to determine the I-39/90 and I-43/WIS 81 interchange deficiencies and to evaluate alternatives to upgrade the existing interchange to meet current highway design standards while maintaining existing local access.

This new and separate EA is now being initiated for the I-39/90 and I-43/WIS 81 interchange to address changes in both the limits of the project and the design of the interchange. The project study limits for this project extend along I-39/90 from WisDOT Welcome Center south of I-43 to E. Hart Road and along WIS 81/I-43 from Freeman Parkway in the city of Beloit to CTH X/Hart Road Interchange (see Exhibit 1 Project Area Study Limits Map).

The alternatives that have been evaluated include: No Build, 1A, 1B, 2A, 2B, 2A modified, and 3B. Exhibit 2 shows the maximum footprint. This footprint combined all alternatives using the worst case scenario of right of way within the project study limits.

Specific ground disturbance activities include grading, cutting, and filling. Additional right-of-way is needed to meet current design standards. The additional right-of-way area for this Section 106 Amendment was surveyed because it was not included in the original archaeological investigation.

☐ Add continuation sheet, if needed.

III. CONSULTATION

How has notification of the project been provided to:

- ☒ Property Owners
  - ☒ Public Information Meeting Notice
  - ☒ Letter - Required for Archaeology
  - ☐ Telephone Call
  - ☐ Other:
- ☒ Historical Societies/Organizations
  - ☐ Public Information Meeting Notice
  - ☒ Letter
  - ☐ Telephone Call
  - ☐ Other:
- ☒ Native American Tribes
  - ☒ Public Info. Mtg. Notice
  - ☒ Letter
  - ☐ Telephone Call
  - ☐ Other:

*Attach one copy of the base letter, list of addresses and comments received. For history include telephone memos as appropriate.

IV. AREA OF POTENTIAL EFFECTS - APE

ARCHAEOLOGY: Area of potential effect for archaeology is the existing and proposed ROW, temporary and permanent easements. Agricultural practices do not constitute a ground disturbance exemption.

HISTORY: Describe the area of potential effects for buildings/structures.
The APE includes all properties immediately adjacent to the proposed project corridor and the entire proposed roadway right of way for all 7 alternatives evaluated.

V. PHASE I ARCHEOLOGICAL OR RECONNAISSANCE HISTORY SURVEY NEEDED

ARCHAEOLOGY	HISTORY
☒ Archaeological survey **is needed**	☒ Architecture/History survey **is needed**
☐ Archaeological survey **is not needed** - Provide justification ☐ Screening list (date).	☐ Architecture/History survey **is not needed** ☐ No structures or buildings of any kind within APE ☐ Screening list (date).

VI. SURVEY COMPLETED

ARCHAEOLOGY	HISTORY
☒ **NO** archaeological sites(s) identified - ASFR attached ☐ **NO** potentially eligible site(s) in project area - Phase I Report attached ☐ Potentially eligible site(s) identified-Phase I Report attached ☐ Avoided through redesign ☐ Phase II conducted – go to VII (Evaluation). ☐ Phase I Report attached - Cemetery/cataloged burial documentation	☐ **NO** buildings/structures identified - A/HSF attached ☒ Potentially eligible buildings/structures identified in the APE - A/HSF attached ☐ Potentially eligible buildings/structures avoided – documentation attached

VII. DETERMINATION OF ELIGIBILITY (EVALUATION) COMPLETED

☐ No arch site(s) eligible for NRHP - Phase II Report attached	☐ No buildings/structure(s) eligible for NRHP - DOE attached
☐ Arch site(s) eligible for NRHP - Phase II Report attached	☒ Building/structure(s) eligible for NRHP - DOE attached
☐ Site(s) eligible for NRHP - DOE attached	

VIII. COMMITMENTS/SPECIAL PROVISIONS – must be included with special provisions language

IX. PROJECT DECISION

- ☐ No historic properties (historical or archaeological) in the APE.
- ☐ No historic properties (historical or archaeological) affected.
- ☒ Historic properties (historical and/or archaeological) may be affected by project;
  - ☐ Go to Step 4: Assess affects and begin consultation on affects
  - ☒ Documentation for Determination of No Adverse Effects is included with this form. WIDOT has concluded that this project will have No Adverse Effect on historic properties. Signature by SHPO below indicates SHPO concurrence in the DNAE and concludes the Section 106 Review process for this project.

(Regional Project Manager)	(WIDOT Historic Preservation Officer)	(State Historic Preservation Officer)
2-26-2014 (Date)	4/2/14 (Date)	June 24 2014 (Date)
(Consultant Project Manager)		
02/26/2014 (Date)		

14-0295/RO

RECEIVED
APR 08 2014
DIV HIST PRES

Wisconsin Historical Society
Determination of Eligibility Form

(Revised May 2013)

WisDOT Project ID #: 1003-10-02

WHS #:

Property Name(s): Gonstead Chiropractic Clinic
Address/Location: 3535 Clinic Road
City & County: Rock County **Zip Code:** 53511
Town: 1N **Range:** 13E **Section:** 21
Date of Construction: 1964

WisDOT Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this request for Determination of Eligibility:

[x] Meets the National Register of Historic Places criteria.
[ ] Does not meet the National Register of Historic Places criteria.

Rebecca Burkel 4/2/14

Rebecca Burkel, WisDOT Historic Preservation Officer **Date**

State Historic Preservation Office

In my opinion, the property:

X Meets the National Register of Historic Places criteria.
___ Does not meet the National Register of Historic Places criteria.

Jim Draeger 5/27/14

Jim Draeger, State Historic Preservation Officer **Date**

Comments (FOR AGENCY USE ONLY):

Division of Historic Preservation
Wisconsin Historical Society
816 State Street
Madison, WI 53706

\\192.168.1.253\Documents_Current Projects\13-084 I43 interchange\Architecture\Gonstead Chiropractic Clinic DOE\Gonstead Chiro DOE.docx

WisDOT Project ID: 1003-10-02
SHSW#
I-39/90 and I-43/WIS 81 Interchange
Rock County
City of Beloit

DOCUMENTATION FOR DETERMINATION OF NO ADVERSE EFFECT

1. Description of the undertaking

The project is located at the I-39/90 and I43/WIS 81 interchange in the Town of Turtle and City of Beloit. The project study limits for the I-90 (north-south) leg of the project area are E Hart Road to the north and WisDOT Welcome Center to the south (a length of approximately 2.7 miles). The project study limits for the I-43 (east-west) leg of the project area are E Hart Road to the east and Freeman Parkway to the west (a length of approximately 1.9 miles). See Attachment 1.

Project activities include the reconstruction of the existing I-39/90 freeway lanes and the addition of a third lane in each direction to create a six-lane divided highway. The I-39/90 and I43/WIS 81 interchange will be redesigned and reconstructed to address roadway and capacity deficiencies. Additional ROW will be acquired in each quadrant of the interchange to accommodate new entrance and exit ramps.

Given the project description and its potential to impact the project area, an APE was established that included all properties adjacent to the proposed project corridor (including those along parallel frontage roads) and the entire proposed roadway right of way. All resources that were at least 40 years old and possessed a degree of historic integrity were examined for potential historical significance.

2. Description of steps taken to identify historic properties

A. Archaeology

Phase I archaeological survey was conducted within the prospective right of way acquisition for the I-39/90 and I43/WIS 81 interchange improvement from October 7, 2013 through October 17, 2013. A total of 0.51 acres were subjected to shovel testing, 16.06 acres were pedestrian surveyed, 1.10 acres were soil cored and determined to be disturbed, and 7.17 acres were visually inspected and determined to be massively disturbed. No cultural materials were identified.

B. Architecture/History

An architecture/history reconnaissance survey was conducted in October of 2013. Prior to the survey, no properties in the APE were NRHP listed; three properties in the APE had been recorded in WHPD.

One property was recommended as eligible for the National Register:

- **Gonstead Chiropractic Clinic – 3535 Clinic Rd**

A Determination of Eligibility was completed for the Gonstead Chiropractic Clinic. This DNAE is being submitted concurrently with the Section 106 documentation; the signed DOE cover page is not yet available.

3. Description of the affected historic properties

Gonstead Chiropractic Clinic

Constructed in 1964 following a design by architect James Dresser, the Gonstead Chiropractic Clinic is considered eligible for National Register listing under *Criterion C: Architecture* as an excellent representative of Neo-Expressionist Contemporary architecture. The property's historic boundary consists of a four-sided polygon that encompasses the building itself and the surrounding wooded lot. Beginning at the inside corner of Lathers Road and Clinic Road, the boundary runs north for approximately 545 ft. along the eastern paved edge of Lathers Road. From there, the boundary runs northeast for approximately 240 ft. following the existing tax parcel boundary. At that point, the boundary runs southeast for approximately 500 ft., again following the existing tax parcel boundary to the northern paved edge of Clinic Road. From there, the boundary runs along the paved edge of Clinic Road for approximately 460 ft. to the point of beginning. (Attachments 2-A through 2-B)

4. Description of the undertaking's effects on historic properties

The **Gonstead Chiropractic Clinic** is located north of I-43 on Clinic Road which serves as a frontage road that runs parallel to I-43. The property's southern and western ROW lines abut Clinic Rd/Lathers Rd which serves as a frontage road along the I-43 project area.

The I-39/90 and I43/WIS 81 interchange will be redesigned and reconstructed. The section of I-43 located nearest to the Gonstead Chiropractic Clinic will be lowered about one foot to be at grade. In this location, southbound I-43 will be widened from approximately 40 ft. to 50 ft. while northbound I-43 will remain 40 ft. in width. No additional ROW will be acquired adjacent to the Gonstead Chiropractic Clinic. (Attachments 3-A through 3-C)

5. An explanation of why the criteria of adverse effect were found inapplicable

i. Physical destruction of or damage to all or part of the property.

The proposed project activities will not result in damage to the Gonstead Chiropractic Clinic or to any contributing element of the property.

ii. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.

The proposed project will not result in alterations to the building or to contributing features within the historic boundary.

iii. Removal of the property from its historic location.

Neither the Gonstead Chiropractic Clinic nor any of the contributing features within its historic boundary will be removed as a result of this project.

iv. Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance.

The Gonstead Chiropractic Clinic is eligible for listing in the National Register under *Criterion C: Architecture*. As part of the reconstruction of the I-43 – I-39/90 interchange, the section of I-43 located nearest to the Gonstead Chiropractic Clinic will be lowered about one foot to be at grade. In this location, southbound I-43 will be widened from approximately 40 ft. to 50 ft. while northbound I-43 will remain 40 ft. in width. No additional ROW will be acquired adjacent to the Gonstead Chiropractic Clinic. No work will take place within the historic boundary. All adjacent work will be in keeping with the property's existing semi-rural, freeway-adjacent setting. The project will not result in a change in the use of the property as a medical clinic.

v. Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.

The reconstruction project, as designed, will not introduce visual, atmospheric, or audible elements that would diminish the integrity of the significant features of the property.

vi. Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian Tribe or Native American organization.

There is no reasonable or foreseeable link between this project and any possible neglect of the property resulting in deterioration. The Gonstead Chiropractic Clinic will continue to be viable for use as a medical office.

vii. Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance

The Gonstead Chiropractic Clinic is not now and has never been under Federal ownership or control.

6. Copies or summaries of any views provided by consulting parties and the public

A public information meeting was held on December 10, 2013. Attendees expressed concerns over bike and pedestrian access to Gateway Blvd, business access along Milwaukee Rd, potential limits on housing growth on Beloit's east side, road noise, and the cost of proposed project activities. No attendees expressed concern over historic properties. See Attachments 4-A through 4-R for information from the Public Information Meeting and for comments and concerns voiced by interested parties.

7. Application of de minimis Section 4(f) finding

In accordance with 23 USC 138(b) Section 6009(a), WisDOT, on behalf of FHWA, hereby informs SHPO that the Determination of No Adverse Effect (DNAE) may be used in considering whether a *de minimis* Section 4(f) finding is appropriate and SHPO concurrence with the DNAE serves as acknowledgement of this official notification.

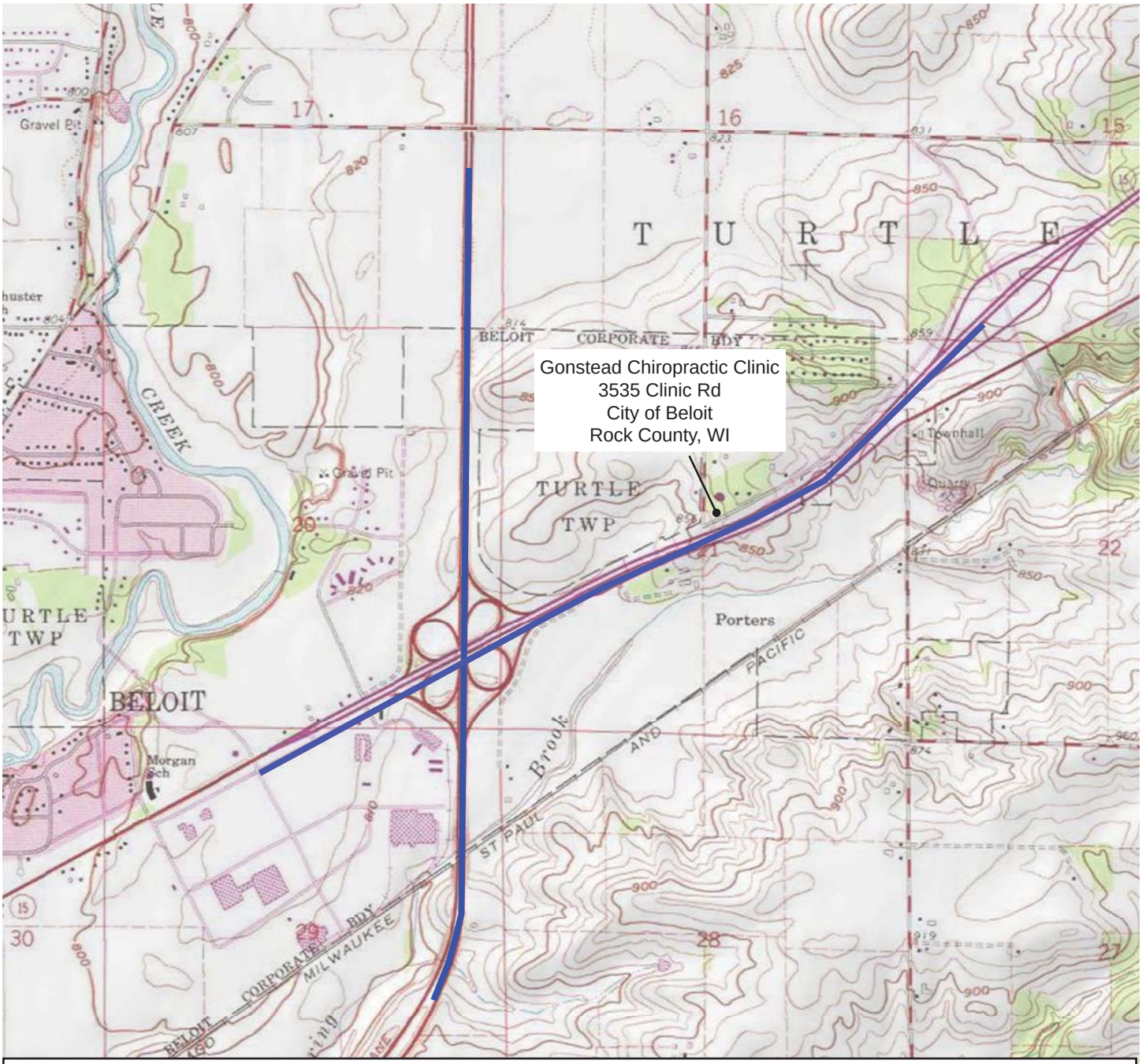
.

Documentation of No Adverse Effect Prepared By:

Name & Company:	Gail Klein, Great Lakes Archaeological Research Center, Inc.				
Address:	PO Box			Phone:	(414)481-2093
City:	Milwaukee	State:	WI	Zip:	53203
Email:	gklein@glarc.com			Date:	November 21, 2013
Sub-contracting to:					
Address:				Phone:	
City:		State:		Zip:	
Email:				Date:	

The following supplemental materials are attached:

☒ Project location map with termini identified
☒ Project plan sheets showing activities in relation to each eligible property and the historic boundary
☒ Photographs that show setting and effect for each eligible property
[ ] Section 106 documentation, including signed DOE cover pages
☒ Correspondence with property owners and consulting parties and any responses



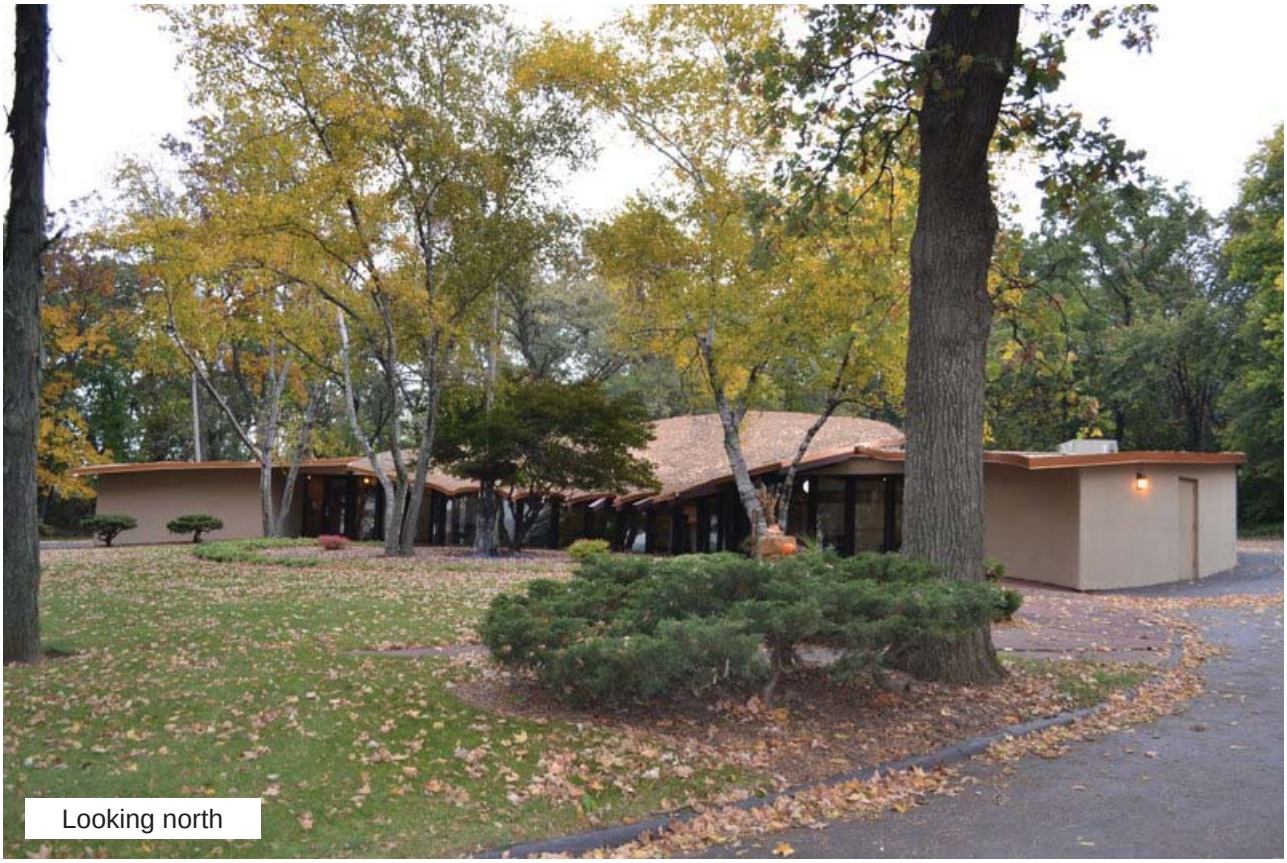
I-39/90 - I-43 Interchange Project Area
City of Beloit, Town of Turtle
Rock County, WI
WisDOT ID: 1003-10-02

Source: USGS, GLARC

N

Project Area

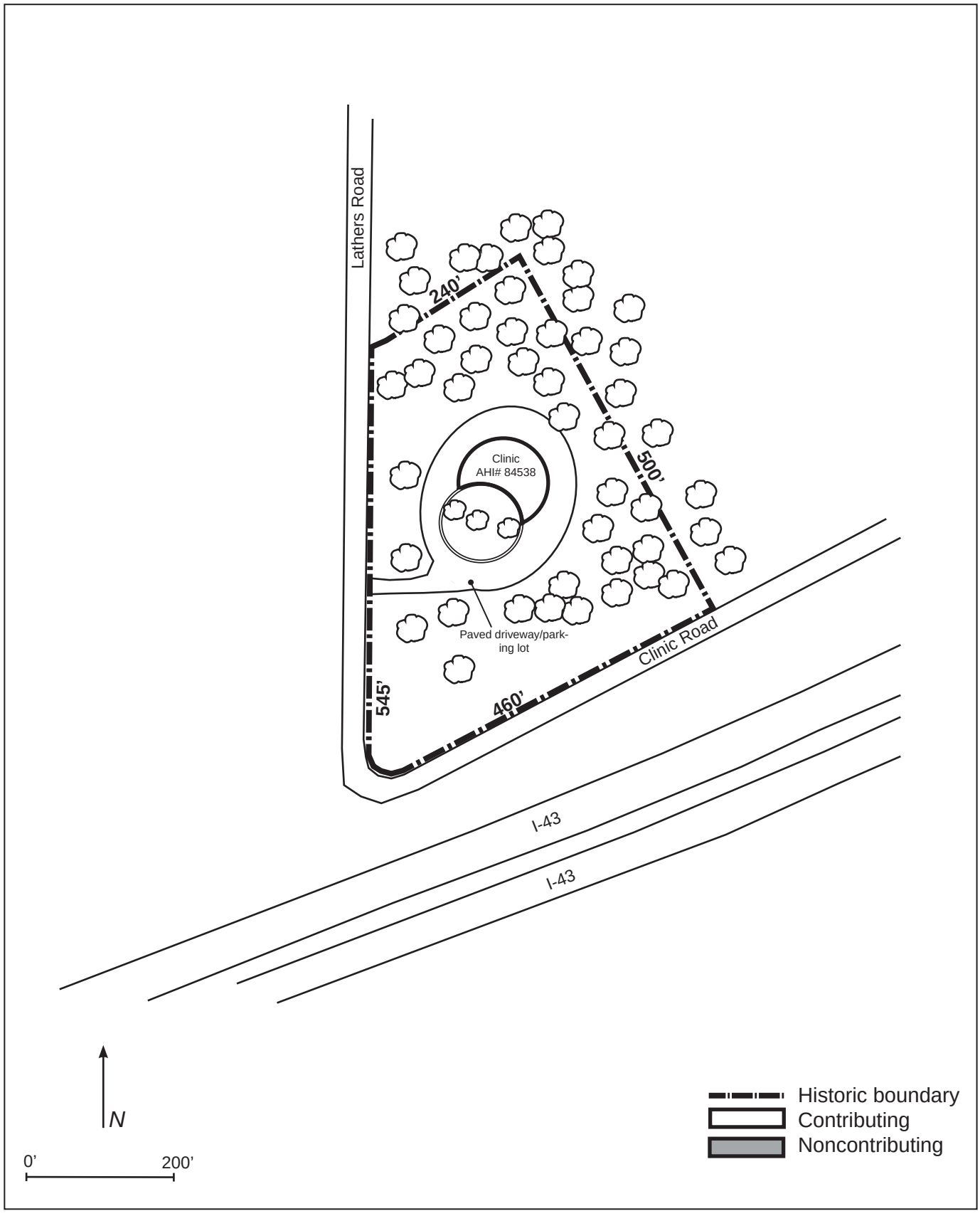
Attachment 1	Project Location Map	



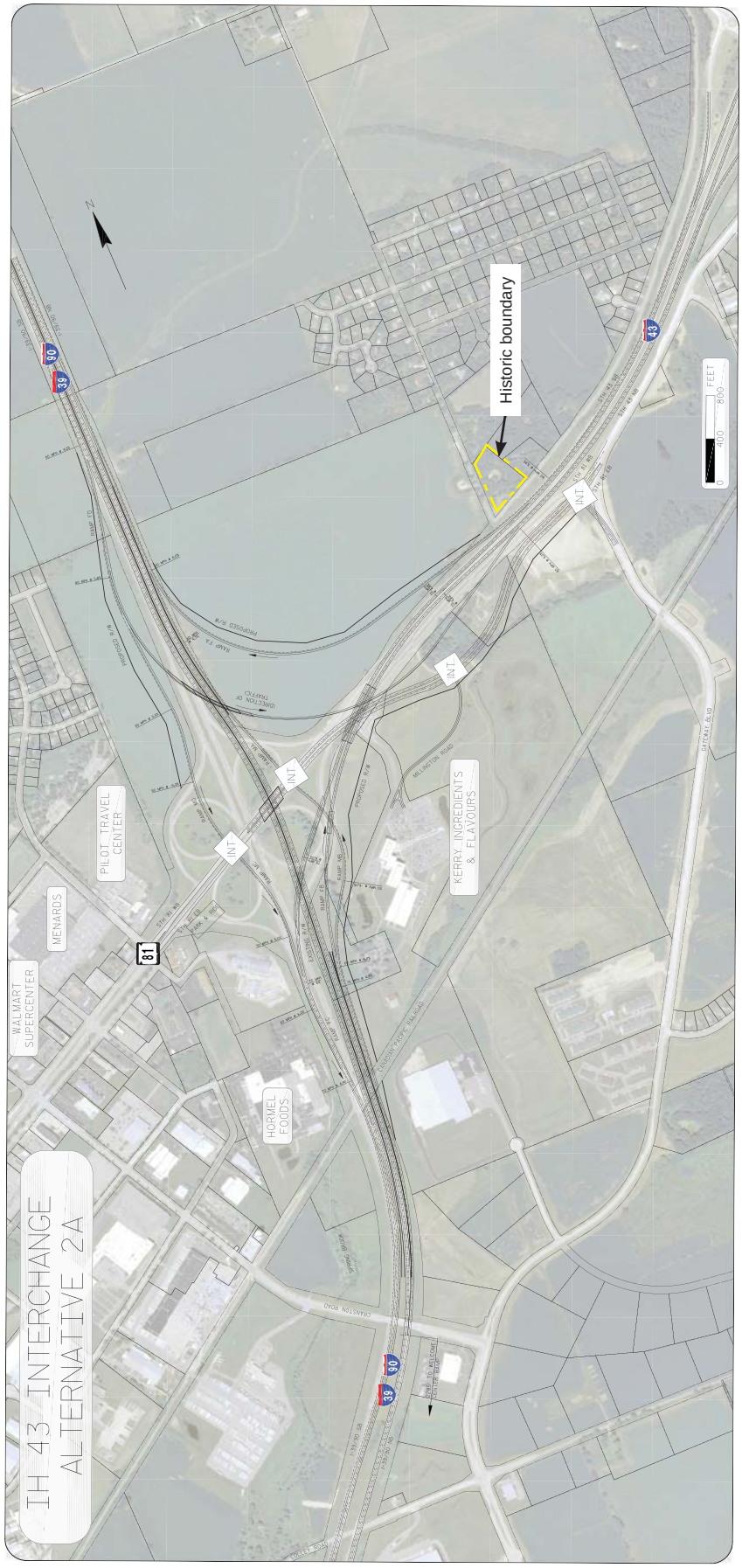
Looking north

Looking northeast

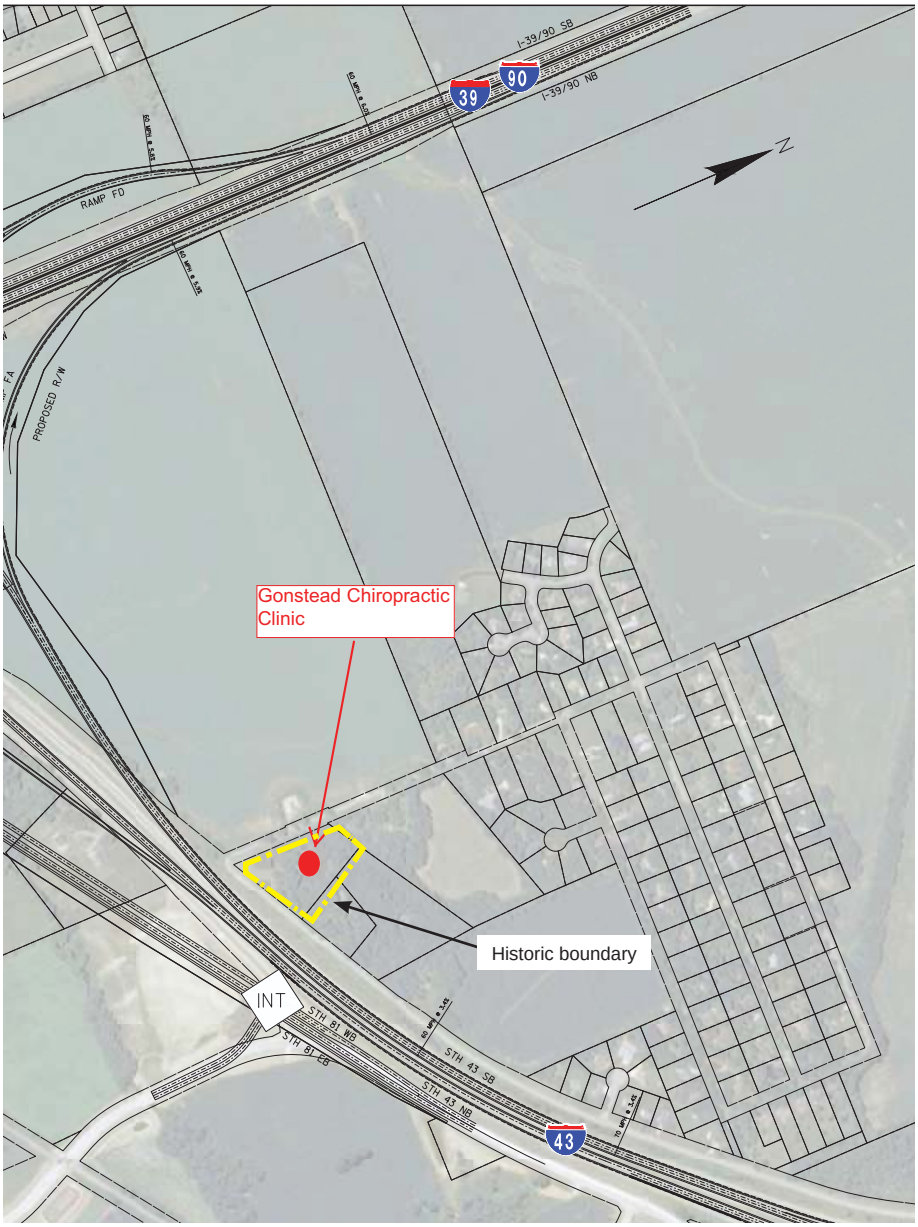
Attachment **2-A**	Gonstead Chiropractic Clinic 3535 Clinic Rd	Photos



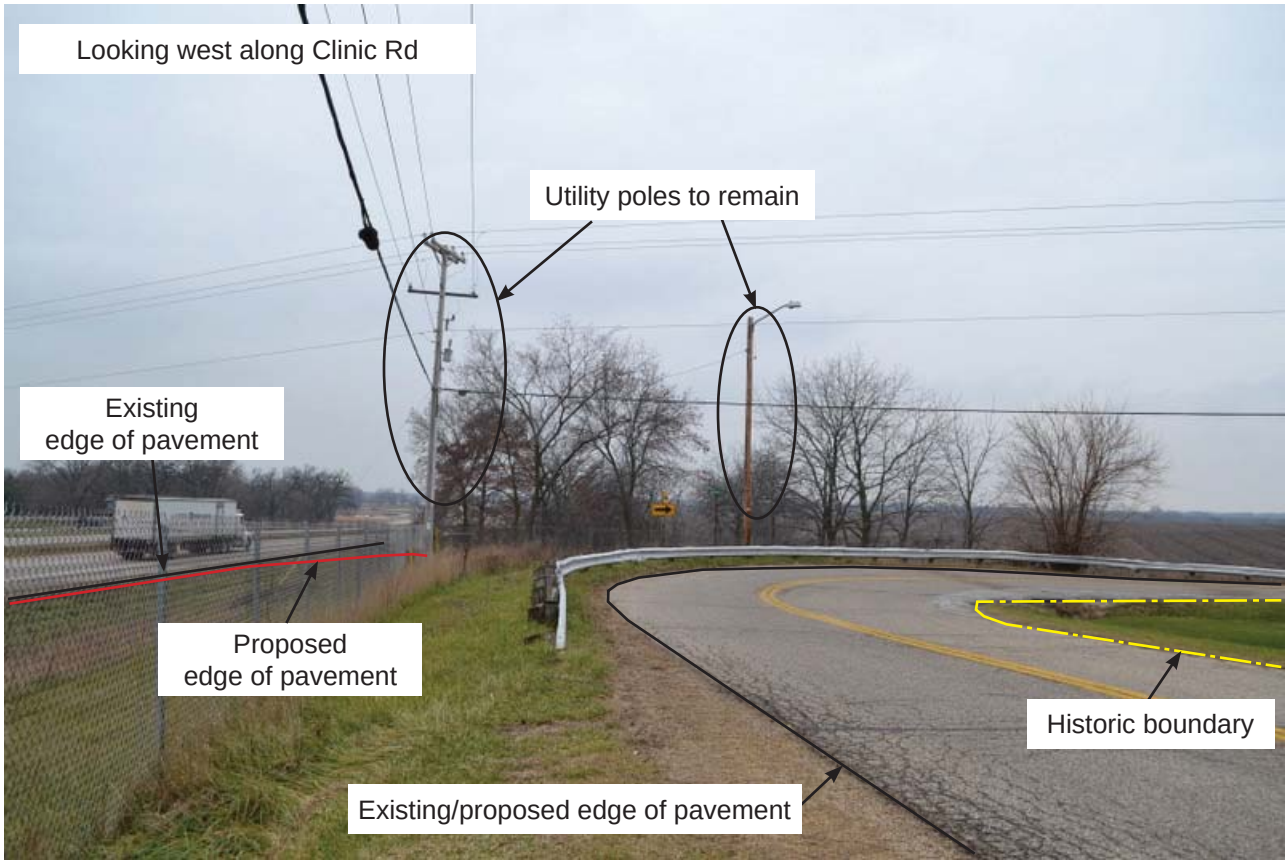
Attachment **2-B**	Gonstead Chiropractic Clinic 3535 Clinic Rd	Historic Boundary Map



Attachment **3-A**	Gonstead Chiropractic Clinic 3535 Clinic Rd	Adjacent Project Plans



Attachment **3-B**	Gonstead Chiropractic Clinic 3535 Clinic Rd	Adjacent Project Plans



Attachment **3-C**	Gonstead Chiropractic Clinic 3535 Clinic Rd	Adjacent Project Activities

Attachment 4-A thru 4-R

are included in the project file

Appendix 15 –Department of Agriculture, Trade and Consumer Protection Correspondence

From: Halpin, Alice L - DATCP
Sent: Monday, December 30, 2013 9:05 AM
To: Grimes, Jennifer - DOT
Subject: IH 39/90 AIS Addendum - I-43 Interchange impacts will be included

Hi Jenny.

Regarding your question about whether the I-43 changes can be part of this AIS Addendum, the answer is yes.

Also, I took the DNR off of the list of farmland owners in the addendum because WisDOT can't condemn them. An AIS (or any addendum to an AIS) only deals with parcels where there is the possibility of condemnation.

I added a brief discussion about the Susan Schultz et al. property. Susan's husband contacted me after I sent you the draft to say he would be returning to the questionnaire I sent them. They feel the property would be better used for commercial purposes rather than for farmland, so their input didn't result in any other changes to the addendum.

Do you have any specific information about the drainage situation on the Roger and Nancy Olson property (N27, N28, N29, N30, N31, N32) and if any changes will be made to address Mr. Olson's concerns about the existing drainage problems?

The addendum is being printed and the publication date is Dec. 27. I will send you copies when it comes back from the printer.

Thanks for all your help.

Alice

From: Grimes, Jennifer - DOT
Sent: Thursday, December 19, 2013 9:20 AM
To: Halpin, Alice L - DATCP
Subject: RE: draft IH 39/90 AIS Addendum 12/16/13 - DOT comments 12/19/13

Alice,
DOT has the following comments on the draft AIS Addendum (12/16/13 version).

Page 1, Project ID for the I-39 Corridor final design is 1001-10-02 (1007-10-00 was used for the EA and preliminary design work).

Page 1, Introduction.
The following design changes resulted in increased right of way needs and environmental impacts in all three Segments:

- A wider median is needed for drainage and to eliminate median cable guard to improve safety.
- Existing overpass profiles were not addressed in the EA/FONSI and all are deficient. New crest curves require over 15 feet of fill in some areas.
- System interchange redesign to allow for higher design speeds resulted in higher impacts at the US 12/18 (Beltline) and I-43 Interchanges. (These will each have a new, separate Environmental Assessment (EA) completed).

- Question: The impacts for I-43 were noted with asterisks in the submittal, so barring huge changes in impacts could we use this AIS for that project as well? (WisDOT ID# 1003-10-02)

- Drainage was not addressed in the EA/FONSI. Impacts associated with storm water and water quality features will be evaluated during final design.
- Detention ponds will likely be required along the corridor to address new regulations for water quality standards in the Rock River drainage basin.

Page 10-12: We checked Table 3 in the AIS Addendum vs. what was submitted in the AIN. See the attached PDF which shows the discrepancies.

Page 13: correct spelling is Shopiere Road (add an 'e' to the end of Shopier)

Page 16, Access. In addition to the 4 properties discussed, there are access changes proposed for 3 other locations:

1. Lunde Farms Inc (N95, N96, N97)

The I-39 improvements will require strip acquisition of cropland and woodland along the Interstate for the County N Interchange improvements. Direct access from parcel N95 to County N would be removed and parcel N96 would be completely acquired for strip acquisition. This would result in access changes to Parcel N95. Access to parcel N95 would
be provided through a new access road along parcel N94 (Vang property). Access to parcel N97 would now be via Williams Drive only (not County N).

2. Crazy Acres Inc (C44, C45, N1, N16)

New connecting roadway from STH 59 to Goede Rd will be centered on the property line between the parcels, splitting what is currently one continuous field into two. Ease of access to parcel C44 will change significantly, requiring the owner to cross the new roadway.

3. Rock Road Lathers (S17, S18)

S18 will require 3 acres of TLE to build new access.

Thank you for sending the draft AIS Addendum for review. Happy Holidays!

Jenny

Jennifer Grimes
Environmental Analyst & Review Specialist
Mega Team Projects & Planning Majors Studies
WisDOT Southwest Region – Edgerton
111 Interstate Blvd, Edgerton, WI 53534
Phone 608.884.1147 | Cell 608.516.9760
jennifer.grimes@dot.wi.gov

(10/28/13: please note my new phone number and office location)

From: Halpin, Alice L - DATCP
Sent: Monday, December 16, 2013 2:04 PM
To: Grimes, Jennifer - DOT
Subject: draft IH 39/90 AIS Addendum

Hello again Jenny.

I received a response to my questionnaire from one of the farmers affected by the IH 39/90 project. I added it in and then added a standard section on severances. I also corrected a few typos. So, here's the revised draft. I apologize for any inconvenience. This version is the same one I mailed to you.
<< File: draft addedum.pdf >>

Alice Halpin
Agricultural Impact Statements Program
Wisconsin Department of Agriculture, Trade and Consumer Protection
P.O. Box 8911
Madison, WI 53708-8911
phone: (608)224-4646
fax: (608)224-4615
e-mail: alice.halpin@wisconsin.gov

AGRICULTURAL IMPACT STATEMENT ADDENDUM

IH 39/90: Illinois State Line to USH 12&18 Dane & Rock Counties

Published December 27, 2013

Wisconsin Department of Agriculture, Trade and Consumer Protection
DATCP #3958

The state of Wisconsin is transitioning from the old Farmland Preservation Program to the Working Lands Initiative that was included in the 2009/2011 state budget. As part of the transition, all 70 counties with Farmland Preservation Plans are required to update those plans within the next few years. The new initiative increases tax credits for farmland owners whose land is in the program.

The towns of Blooming Grove, Pleasant Springs, Christiana, and Albion in Dane County and the towns of Milton, Harmony, La Prairie, and Turtle in Rock County have adopted their county's exclusive agricultural zoning ordinance. Under the Working Lands Initiative, landowners can receive $7.50 per acre in tax credits on land zoned for exclusive agricultural use.

The proposed project will pass through the La Prairie Agricultural Enterprise Area (AEA) in Rock County. AEAs were created in the Working Lands Initiative legislation so that local agricultural communities could identify contiguous tracts of farmland that they want to preserve and farmland owners could have the opportunity to receive increased tax credits.

Farmland owners with land zoned for exclusive agricultural use or land covered by an agreement signed before June 30, 2009 when the Working Lands Initiative began do not have to pay back any of the tax credits they have received through the program on land that would be acquired for this project. However, the loss of any farmland enrolled in the federal government's various commodity programs could affect a farmer's base acreage resulting in lower revenue from these programs.

III. AGRICULTURAL IMPACTS

The following table lists the original and the revised acquisitions of farmland for the proposed project. For property that was originally listed as being affected by the project but has no acres listed in the revised acquisition column, ownership may have changed or the property may no longer be affected. An asterisk (*) next to the revised acres indicated that a temporary easement less than one acre will also be acquired.

Table 3
Acres of Farmland to be Acquired

Farmland Owners	Acres to be Acquired	
	Original	Revised
Maurie W. & Ianne M. Peterson	1.3	
T. Wesley & Lois Skaar	1.3	1.5
Bonnie J. Eldridge	1.6	
Thomas S. & Randi K. Payne	1.6	
Lunde Farms	1.1	*5.8
Neal E. & Mark Elsing et. al.	2.6	1.2

Farmland Owners	Acres to be Acquired	
David W. & Tammie L. Smithback	3.3	3.3
Howard Lien (incorrectly listed in original AIS)	~~1.4~~	0
Gary A. & Janet M. Johnson	1.2	
Roger Fosdal	1.5	2.6
Thomas W. & Roxanne Hanson	1.2	1.5
Dean A. & Patricia Ann Peterson	2.5	
Myron Fosdahl	3.4	*2.8
Frank Zeller	1.3	
Roy & Mary Kauper	1.3	*2.4
Andris J. & Linda G. Zirba	1.5	
Gurena Meyer & Britton McArdle	4.4	
Syneva Vedvig	2.1	
Rolland D., Judith E., & Randall Nelson	2.2	4.2
William L. & Jill E. Myhre Jr. et al. (incorrectly listed in the original AIS as 3.5 acres)	2.5	2.3
Crazy Acres	4.9	*8.2
Roger J. & Nancy J. Olson	4.5	6.6
Henry B. & Rita R. Bratland, Sr.	1.2	7.2
Reppon & Joan Stevens Trust	2.0	
William G. and Robert J. Hicks et. al.	1.4	
Eastman Hunting Club	2.5	*4.2
Arthur Donaldson	1.6	*3.0
Frances Hemenway	3.3	
Judy Nelson/Genesis 1	3.5	5.5
Sharon Deegan	2.1	*1.5
James Thorpe/Mulder Dairy Farms (incorrectly listed in the original AIS as 9.4 acres)	12.5	22.1
Robert Cunningham (incorrectly listed in original AIS)	~~7.4~~	
Robert T. & Janice W. Cunningham Revocable Trust	0	3.5
Roland E. & Mary T Coats	2.2	3.8
Paul L. Wixom & Irene T. Hart	2.0	2.9
Riesterer Farms	2.1	6.2
D&W Properties	2.9	2.0
Debra Cooke & David Johnson	1.1	6.4
Atkinson Farms, Inc.	0	*4.7
Coburn Rorabeck Trust	0	*4.6
Miguel & Linda Mora	0	4.4
Funk's Fairview Acres, Inc.	0	3.9
Triple T Farms	0	2.8

Farmland Owners	Acres to be Acquired	
Dabson Trust et al.	0	1.9
David Reid	0	1.6
H&H Prop of Rock Co LLC	0	1.6
Leslie F. & Virginia Hulla	0	1.5
Jerry & Jennifer Frei	0	1.4
Rock Road Lathers	0	*1.2
Mary Jane Buss Trust	0	1.2
Bridget Walsh Trust	0	1.1
Lisa Collin Fulton	0	1.0
Bryan & Cyndi Meyer	0	1.5
Gary E. Thalacker	0	1.6
Theodore G. & Joanne H. Petersen	0	1.7
Betty Updike	0	1.1
Earl A. & Barbara J. Collins	0	*1.8
Richer & M. Eugene Vedvig, & Michael Braley	0	3.7
Douglas O. Nelson	0	2.9
American Transmission Company LLC	0	2.2
Walter O. Maurer Sr. Revocable Trust	0	2.0
Robert & Sandra Lyke	0	1.7
Koua & Dia Vang	0	1.7
Robert R. & Annique R. Cohen Wichner	0	1.6
Roennenburg Revocable Living Trust	0	1.5
Frederick & Phyllis Johnson	0	1.4
Lucille Nottestad	0	1.2
Storck Road Farm LLC	0	1.1
Louis J. Erickson, Debbi Len, Donald R. Erickson, Howard Len, Jr.	0	1.1
Ingrid Suppes (incorrectly omitted from the original AIS)	49.8	39.1
Turtle Creek Development	0	19.5
Leach Farms, Inc.	0	15.9
Hahn Revocable Trust	0	*9.6
Green Valley Farms, Inc.	0	6.4
Arndt Farms, Inc.	0	5.2
Susan Schultz et al.	0	*6.3
Roger Olson	0	1.2
Nick & Roxanne Hull	0	5.3
William & Shirle Balis (incorrectly omitted from original AIS)	2.9	0

Farmland Owners	Acres to be Acquired	
Helen Harrison, Donald Erickson, et al. (incorrectly omitted from original AIS)	1.4	0
Mary, Elizabeth, & Leslie Mack Trustee (incorrectly omitted from original AIS)	2.1	0
Newell Companies (incorrectly omitted from original AIS)	2.6	0
William Cunningham (incorrectly omitted from original AIS)	1.6	0
Originally 87 acquisitions each one acre or less (was incorrectly listed as 86 acquisitions totaling 38.2 acres)	38.8	
Revised 49 acquisitions each one acre or less		20.8
TOTAL	186.9	302.7

DATCP attempted to contact the farmland owners who will lose more than five acres of land as a result of this project. The responses of those who provided information to DATCP are summarized below.

Farmland Owner: Hahn Revocable Trust
Operator: Leon Hahn
Proposed Acquisition: Fee-simple acquisition of 9.6 acres plus 0.62 of an acre of temporary limited easement

The proposed acquisition will be in strips along the existing right-of-way for IH 39/90, CTH "S," and Shopiere Road. The Trust consists of about 160 acres of land. Mr. Hahn grows corn and soybeans on the cropland.

Mr. Hahn indicated that the original design for Shopier Road would have created a median that would have made it impossible for semis to access his property. He raised this concern with WisDOT and a WisDOT representative told him that the location of median would be moved away from the Hahn driveway so that it wouldn't interfere with semis entering or leaving the Hahn property.

He also requested that WisDOT not come as close to his home as originally proposed. The original design would have necessitated the removal of at least two trees in front of the Hahn residence. Mr. Hahn said that WisDOT agreed to reconstruct this portion of CTH "S" with curb and gutter rather than ditches, so the trees won't need to be removed.

Mr. Hahn indicated that a new road will be constructed through part of his 11-acre woods to access neighboring homes. He said that the wooded parcel is currently zoned for residential use.

Appendix 16– American Indian Tribe Correspondence

Wisconsin Department of Transportation

111 Interstate Blvd., Edgerton WI 53534-9399 (608) 884-1234 FAX (608) 884-1220 www.dot.wisconsin.gov

December 4, 2013

Name
Address
P.O. Box
City, State, Zip

Subject: **Agency Scoping Letter**
I-39/90 & I-43 Interchange
Rock County
WisDOT Project I.D. 1003-10-02

Dear Mr. Example:

Previously, your agency/organization received information regarding the Wisconsin Department of Transportation (WisDOT) – Southwest Region's plans for future improvements of the I-39/90 South Segment in Rock County (WisDOT ID: 1003-10-01).

This letter is to notify your agency/organization that the scope of this project has recently changed.

WisDOT has initiated a separate Environmental Assessment (EA) for the I-39/90 and I-43 interchange and is seeking your comments and feedback specific to the area being studied under WisDOT ID 1003-10-02. The I-43 Interchange EA study logical termini are as follows (see enclosed map):

North – County S interchange
South – IL-75 interchange
East – WIS 140 interchange
West – Cranston Road

The I-43 Interchange was previously included in the I-39/90 Environmental Assessment (EA) from the Illinois state line to US 12/18 in Madison which received a Finding of No Significant Impact (FONSI) from the Federal Highway Administration (FHWA) on October 1, 2010. Due to proposed project changes altering the project scope that will most likely increase environmental impacts of the I-39/90 Corridor, FHWA and WisDOT have concluded that addressing the two system interchanges (I-43 in Beloit and US 12/18 Beltline) as stand-alone National Environmental Policy Act (NEPA) documents would be appropriate. A new, separate EA is now being initiated for the I-43 Interchange to address changes in the limits of the project in this area and changes in design of the interchange. The I-43 Interchange will be reconstructed to address overall safety, accommodate existing and future traffic, and replace aging pavements and structures. AECOM has been contracted to perform the design services.

Ground disturbance is anticipated outside of the existing right of way around I-43 interchange for the entire length of the project requiring entire property, strip right-of-way acquisition or temporary easements for grading.

A Coordination Plan and Impact Assessment Methodologies document as identified in 23 USC 139 will not be part of the process used in preparing the environmental document for this project. However, there will be several agency coordination points throughout the preliminary design phase to request comments at the milestones for purpose and need, selection of a preferred alternative, and notification of the availability of the draft EA for public and agency review. Below is a list of key dates for this project.

Develop Alternatives	Fall 2013
PIM #2	Winter 2013
Draft Purpose and Need	Winter 2014
Concurrence Meeting with Agencies	Winter 2014
Recommend Alternative	Spring 2014
Concurrence Meeting with Agencies	Spring 2014
PIM #3	Summer 2014
Draft EA	Fall 2014
Public Hearing	Fall 2014
FHWA Signed Final EA	Winter 2014

WisDOT and Rock County would be pleased to receive any comments regarding this project or any information you wish to share pertaining to cultural resources located in the area. If your tribe wishes to become a consulting party under Section 106 of the National Historic Preservation Act or would like to receive additional information regarding this proposed project, please contact:

Jim Becker; Environmental Process and Documentation Section; 4802 Sheboygan Avenue; Room 451; Madison, Wisconsin 53707 (608) 261-0137.

You are also cordially invited to a project Public Involvement Meeting which is being held on December 10, 2013. The time and location are as follows:

5 – 7 p.m. (brief presentation at 5:30 p.m.)
Beloit Rotary River Center
1160 S. Riverside Drive, Beloit, WI 53511

Yours sincerely,

Steve Marshall

Steve Marshall
I-39/90 South Segment Project Manager

Enclosures: As Noted

c/enc: Rebecca Burkel, WisDOT EPDS Transportation Historic Preservation Officer
James Becker, WisDOT EPDS Archaeology/Burial Site Program Manager
Roger Larson, WisDOT SW Region Tribal Coordinator
c: Jennifer Grimes, WisDOT
Michael Preboske, AECOM
Randy Fuchs, AECOM

Nov. 2013

Project Termini Map

Project No. 1003-10-02
I-39: IL 75 - CTH S
I-43: Cranston Road - STH 140
Rock County, WI

39/90 IMPROVING a gateway to Wisconsin

0 2,000 4,000 Feet

N

East Limits
1003-10-02

North Limits
1003-10-02

West Limits
1003-10-02

South Limits
1003-10-02

Clinton

Beloit

Creek Rd

Hart Rd

Lathers Rd

Butterfly Rd

Clinic Rd

Canadian Pacific RR

Cranston Rd

E. Colley Rd

Pkwy

COUNTY S ROAD

COUNTY J ROAD

COUNTY X ROAD

43

39

90

140

81

75

51

Wisconsin

Illinois

Map Location

JANESVILLE

BELOIT

WI & Southern RR

Avalon Rd

Maple Lane Rd

Woodman Rd

Elm Dr

Sunny Ln

Read Rd

Town Line Rd

Union Pacific RR

Patrick Rd

Creek Rd

Plymouth Creek

Philmower Rd

Hubbe Pkwy

W. Hart Rd

Lathers Rd

Butterfly Rd

Cranston Rd

E. Colley Rd

Mr. Dave Grignon
Menominee Indian Tribe of Wisconsin
P.O. Box 910
Keshena, WI 54135

Edmore Green
Sac and Fox Nation of Missouri in Kansas and Nebraska
305 N. Main
Reserve, KS 66434

Mr. Larry Balber
Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin
88385 Pike Road, Highway 13
Bayfield, WI 54814

Mr. Jonathan Buffalo
Sac and Fox of the Mississippi in Iowa
349 Meskwaki Road
Tama, IA 52339-9629

Ms. Edith Leoso
Bad River Band of Lake Superior Chippewa Indians of Wisconsin
P.O. Box 39
Odanah, WI 54861

Mr. William Quackenbush
Ho-Chunk Nation
P.O. Box 667
Black River Falls, WI 54615

Ms. Hattie Mitchell
Prairie Band Potawatomi Nation
16281 Q Road
Mayetta, KS 66509

Ms. Sandra Massey
Sac and Fox Nation of Oklahoma
RR 2, Box 246
Stroud, OK 74079

Ms. Melissa Cook
Forest County Potawatomi Community of Wisconsin
P.O. Box 340
Crandon, WI 54520

Giiwegiizhigookway Martin
Lac Vieux Desert Band of Lake Superior Chippewa Indians
P.O. Box 249
Watersmeet, MI 49969

BAD RIVER BAND OF LAKE SUPERIOR TRIBE OF CHIPPEWA INDIANS

CHIEF BLACKBIRD CENTER P.O. Box 39 • Odanah, Wisconsin 54861

Tribal Historic Preservation Office

December 13, 2013

Wisconsin Department of Transportation
Attn: Steve Marshall, Project Manager
111 Interstate Blvd.
Edgerton, WI 53534-9399

RE: Project ID 1003-10-02
I-39/90 & I-43 Interchange
Rock County

Dear Mr. Marshall:

The Bad River Tribal Historic Preservation Office has received a request for review of your federal undertaking under Section 106 of the National Historic Preservation Act.

In order for us to process your request, the Bad River Tribal Historic Preservation Office requires payment of a processing fee of $650.00 for each request for review of each federal undertaking received for projects beyond the exterior boundaries of the Bad River Indian Reservation.

The Bad River Tribal Historic Preservation Office - *106 Review Processing Fees* not only expedites your request for review, but also supports our efforts to obtain self-sufficiency. Further, this fee will enable us to provide other educational development efforts to enhance public knowledge of the history of the Bad River Band of the Lake Superior Tribe of the Chippewa.

To process your request, please make checks payable to: **Bad River Tribe – THPO/NAGPRA Services**

Insert this Reference: **RE: #106-2013-December-1303**

And mail your payment to:

Bad River Band of Lake Superior Tribe of Chippewa Indians
ATTN: Accounting
P.O. Box 39
Odanah, WI 54861

Once payment is received, our office will promptly respond to your request.

Your efforts to maintain compliance with Section 106 of the National Historic Preservation Act are greatly appreciated.

Sincerely,

Loretta F. Livingston

Loretta Livingston, Bad River THPO Processing Clerk

Forest County Potawatomi
Cultural Center, Library and Museum

January 30, 2014

Steve Marshall, Project Manager
WisDOT
111 Interstate Blvd.
Edgerton, WI 53534

Re: Agency Scoping Letter, I-39/90 & I-43 Interchange, Rock County, WisDOT Project ID: 1003-10-02

Dear Steve Marshall:

This letter is in response to the proposed project referenced above, as provided in the letter dated December 4, 2013. As this project occurs within Potawatomi ancestral and previously occupied lands, we would like to express our concerns with any impacts to historic and cultural properties located within the project area of potential effect for the project mentioned above.

We appreciate receiving results of an archival review, cultural resource investigation studies, and archaeological reports. Should there be an impact or effect to cultural or historic properties as a result of this project, we will request consultation pursuant to Section 106 of the National Historic Preservation Act, as amended.

You may send the results of the archival review, cultural resource assessments, and archaeological report to:

Forest County Potawatomi Community
Attn: Melissa Cook, Tribal Historic Preservation Officer
8130 Mish ko swen Drive
P.O. Box 340
Crandon, WI 54520
Melissa.Cook@fcpotawatomi-nsn.gov (for digital format)

If you have any questions, please contact me at 715-478-7248 or by email Melissa.Cook@fcpotawatomi-nsn.gov.

Respectfully,

Melissa Cook
Tribal Historic Preservation Officer

5460 Everybody's Road • Crandon, Wisconsin 54520
Telephone (715) 478-7474 • (800) 960-5479 • Fax (715) 478-7482

Appendix 17 – Regional Real Estate Section Correspondence

All Early State and Advanced Federal Acquisitions require:	**Remarks**
• Project EIS doesn't have to be complete prior to Relocation Order	See Jenny Grimes' comments
• Design Study Report doesn't have to be complete prior to Relocation Order	DSR still under way
• Relocation Order approval required prior to parcel acquisition	Plat in development
• Relocation Plan approval required if any owners or tenants are to be relocated	Tenant relo – plan will be written upon early acq approval
• Environmental process initiated enough to know if parcel(s) to be acquired have any environmental issues	See Jenny Grimes' comments
• No issue, problem or controversy involved in concept or alternatives of project or parcel	None known
• Acquisition will not influence the decision re: need to construct project or selection of alternative	Parcel required for all three alts
• Must follow standard procedures for plats, relocation orders, relocation plans	Standard procedures will be followed
• Compliance with Uniform Relocation Assistance & Real Property Acquisition Policies Act	URA will be followed
• Compliance with Title VI of the Civil Rights Act of 1964	See Jenny Grimes' comments
• Doesn't include 4(f) lands (needs approved environmental document first)	See Jenny Grimes' comments
• Meets NEPA, Historical Preservation Act, Endangered Species Act, Wetlands Exec Order, etc. requirements	See Jenny Grimes' comments
• Acquisition not being used to circumvent federal laws or regulations	See Jenny Grimes' comments
• Public was given official notice that a public hearing has been held or the opportunity for such a hearing was afforded	Public information activities have taken place
• Project included in approved highway improvement funding program or approved MPO transportation plan such as: Proposed 3R program, Backbone program and all enumerated majors projects	Included in I-39/I-43 interchange
• Parcel will be needed for the highway project	All three alts require acquisition
• For total takes, can use map, CSM, etc. instead of R/W plat as interim tool to acquire	Draft plat has been submitted

State Early Acquisition process	**Federal Advanced Acquisition process**	
• No federal $$ in R/W • For hardship or protective reason • Region approval • More expedited process for the regions when no federal funds in R/W • Written justification from owner not needed but most regions are requiring it • Region may fall back to Federal Advanced acquisition requirements if it is in the best interest of department due to funding constraints or controversy of project.	• Fed $$ allowed in R/W – needs prior approval • For hardship or protective reasons • BTS-RE approval • Can be several years in advance of project	
	Hardship criteria	**Protective purchase criteria**
	Owner must provide written hardship justification • Can't sell because of pending project or • Loss of employment or financial distress or • Transfer of job or • Pending retirement – moving away or • Pending lawsuits, foreclosure, tax sale, or • Change in family size or • Advanced age of owners or • Medical disabilities or problems or • Death in family-affects living arrangements or • Settling of an estate	Initiated by and for the benefit of WisDOT • Proposed development or extensive improvement to take place on parcel. Will increase property value significantly or create relocation issues. Must have proof of development potential – not just word of owner. • Parcel involves a relocation – difficult to find comparable replacement sites
Reviewed for need by DTSD-BPD Approved by TS/RE Mgr or RE Supervisor.	Approved for need and criteria compliance by DTSD-BPD & BTS-RE	Approved for need and criteria by DTSD-BPD & BTS-RE
DTSD Program Mgr approves funds for 3R. For Majors, Backbone or High Cost Bridge projects submit to appropriate DTIM-BHSP Program Manager for funding has not been programmed at all or needs to be rescheduled.	Then, send to appropriate DTIM-BSHP Program Manager for funding consideration for monies that have not been programmed at all or need to be rescheduled.	Then, send to appropriate DTIM-BSHP Program Manager for funding consideration for monies that have not been programmed at all or need to be rescheduled.

Tkachuk, Tyler

From: Grimes, Jennifer - DOT <Jennifer.Grimes@dot.wi.gov>
Sent: Wednesday, May 28, 2014 3:31 PM
To: Fuchs, Randy; Tkachuk, Tyler
Cc: DOT I39 Project
Subject: FW: IH 39 Corridor, South Segment: IH 43 Interchange - Place Property early acquisition

FYI – preliminary environmental review of the Place property. Also an UST was discovered next to the house during the real estate property review.

From: Grimes, Jennifer - DOT
Sent: Monday, November 05, 2012 6:12 PM
To: Beth Smith
Cc: Marshall, Steve - DOT
Subject: IH 39 Corridor, South Segment: IH 43 Interchange - Place Property early acquisition

Beth,

I have reviewed the James D. and Sharon S. Place Trust Property at 3490 Millington Road, Beloit, WI (approximately 7 acres) for early acquisition. Per the language below from the Real Estate Manual, I was able to address criteria 1- 8 from an environmental perspective.

> The early acquisition process allows the acquisition of right of way prior to DSR approval or completion of the environmental analysis process provided that all of the following criteria have been met:

1. Advanced acquisition of property(s) did not influence decision relative to need to construct project or selection of alternative.
   - ✓ *Regardless of the selected alternative (1, 2, or 3) for the IH 39 / IH 43 interchange, the property will be required for acquisition.*
2. Complies with Title VI of Civil Rights Act of 1964.
   - ✓ *The project will not will have an adverse impact on minority populations or low-income populations nor will any impact be disproportionately high.*
3. Complies with Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
   - ✓ *Residential acquisitions and relocations will be completed in accordance with the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended."*

4. Does not include lands protected by Section 4(f) of the DOT Act. Parcels impacted by Section 4(f) cannot be acquired until an environmental document has been approved.
   - ✓ *The property is not a Section 4(f) property (not part of a publicly owned park, recreation area, wildlife refuge, or historic site). I reviewed the State Historic Preservation Office's Wisconsin Architecture and History Inventory and found no records for the property.*
5. Early acquisitions are not being used to circumvent federal laws or regulations.
   - ✓ *All federal environmental laws or regulations will be followed by the project.*
6. Environmental process has been initiated and is well on its way to completion.
   - ✓ *Previously approved environmental documentation includes the following:*
     - o *An Environmental Assessment (EA) for the I-39/90 corridor from USH 12/18 (Madison Beltline) to the border with Illinois was signed on July 19, 2008.*
     - o *The Finding of No Significant Impact (FONSI) was signed by FHWA on October 1, 2010, with an effective date of October 19, 2010.*
   - ✓ *Additional environmental review and updating to the EA/FONSI is on-going throughout preliminary design.*
7. Final project meets all requirements for normal federal aid project, such as compliance with NEPA, Historical Preservation Act, Endangered Species Act, Wetlands Executive Order, etc.
   - ✓ *The final project will meet all federal environmental requirements.*
8. No issues, problems or controversy involved in the concept, or alternatives, or parcel.
   - ✓ *I am not aware of any environmental issues, problems or controversy with the parcel.*

9. Process follows standard procedures for plats, relocation orders, relocation plans (if required), etc. Under this process, relocation order can be approved prior to DSR.

- Not an environmental issue.

I also reviewed the following databases of contaminated sites/storage tanks:

- WDNR Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web for information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin.
- Wisconsin Dept. of Safety and Professional Services (DSPS) Storage Tank Database (state registry of underground storage tanks [USTs] and above ground storage tanks [ASTs])
- DSPS contaminated sites database

The property is clear from environmental concerns, and you can proceed with the early acquisition.

Standard real estate site assessment procedures should be followed when on-site inspections are completed noting the presence of any underground or above ground fuel/gas storage tanks, asbestos inspection, etc.

See me if you have any questions,
Jenny

Jennifer Grimes
Environmental Analyst & Review Specialist
Mega Team Projects & Planning Majors Studies
WisDOT Southwest Region – Madison office
2101 Wright Street, Madison, WI 53704
Phone 608.246.3823 | Cell 608.516.9760
jennifer.grimes@dot.wi.gov

From: Beth Smith [mailto:beth@tva-llc.com]
Sent: Monday, October 15, 2012 3:20 PM
To: Grimes, Jennifer - DOT
Cc: Marshall, Steve - DOT
Subject: Re: IH 43 Interchange - Place Property early acquisition

Hi Jenny,

The address of the property is 3490 Millington Road, Beloit, WI. It is approximately 7 acres and I believe it is owned by the James D and Sharon S Place Trust. The tax ID number is 20622162000. It appears that the property has been listed for sale a couple of times but that the listings expired and have not since been renewed. It is improved with a house and outbuildings, but in all likelihood those would be razed for development.

There are exhibits on the I-39 website which show that regardless of the selected alternative (1, 2, or 3), the property will be required. Links to those alternatives can be found here: http://www.dot.state.wi.us/projects/swregion/i3990/south/maps.htm#exhibits .
Please let me know if there is additional information you need.

Beth

On Mon, Oct 15, 2012 at 3:01 PM, Grimes, Jennifer - DOT <Jennifer.Grimes@dot.wi.gov> wrote:

Beth,

Please send me any information on the Place property that you have so I can review the existing environmental and give clearance for the Early Acquisition.

Jenny

Jennifer Grimes
Environmental Analyst & Review Specialist
Mega Team Projects & Planning Majors Studies
WisDOT Southwest Region – Madison office
2101 Wright Street, Madison, WI 53704
Phone 608.246.3823 | Cell 608.516.9760
jennifer.grimes@dot.wi.gov

--
Beth Smith, SR/WA
President
TerraVenture Advisors
4641 West Forest Home Avenue
Milwaukee, WI 53219
Phone (414) 327-2607
Fax (414) 755-0908
beth@tva-llc.com

Appendix 18 – Bureau of Aeronautics Correspondence

Tkachuk, Tyler

From: Hetland, Justin - DOT <Justin.Hetland@dot.wi.gov>
Sent: Tuesday, April 22, 2014 10:05 AM
To: Marshall, Steve - DOT
Cc: Grimes, Jennifer - DOT; Preboske, Michael; Ryan, Dan; Fuchs, Randy; Tkachuk, Tyler
Subject: RE: I-43 Interchange Project ID: 1003-10-02 BOA Agency Coordination Letter

Mr. Marshall,

I've reviewed Project ID 1003-10-02 I-39/90 & I-43/WIS 81 Interchange, and do not have any issues at this time with the project from a Bureau of Aeronautics standpoint. Since portions of the project come close to the Beloit Airport, the FAA's Obstruction Evaluation Website should be checked to see if any notices of proposed construction will be required by the FAA. The 'Notice Criteria Tool' should be used to see if any equipment will require study, here's the link: https://oeaaa.faa.gov/oeaaa/external/gisTools/gisAction.jsp?action=showNoNoticeRequiredToolForm
If you have any questions about this process I can assist you. Filing with the FAA is required at least 45 days prior to the start of construction to give them enough time to complete the study, however determinations last a year and a half so I'd recommend filing with the FAA once the project is a little closer to being started.

On a final note, due to the proximity to the Beloit Airport, the Bureau of Aeronautics recommends contacting the airport as a friendly heads up about your project. The airport will welcome any information you have about the use of equipment that may affect airport operations. Contact Steve Stauber at the Beloit Airport at (608)365-2998.

Please let me know if you have any questions!

Justin M Hetland
Airspace Safety Program Manager
Department of Transportation/DTIM/Aeronautics
4802 Sheboygan Ave Room 701
Madison, WI 53707
608-267-5018 | justin.hetland@dot.wi.gov

From: Tkachuk, Tyler [mailto:Tyler.Tkachuk@aecom.com]
Sent: Tuesday, March 25, 2014 2:03 PM
To: Hetland, Justin - DOT
Cc: Marshall, Steve - DOT; Grimes, Jennifer - DOT; Preboske, Michael; Ryan, Dan; Fuchs, Randy
Subject: I-43 Interchange Project ID: 1003-10-02 BOA Agency Coordination Letter

Justin,

Attached is the BOA letter for the I-43 interchange Project ID: 1003-10-02 for your review. If you have any questions please let me now.

Thanks,

Tyler Tkachuk, EIT
Transportation Engineer
D 608.828.8211
tyler.tkachuk@aecom.com

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 F 608.836.9767
www.aecom.com

Tkachuk, Tyler

From: Steve Stauber <shstauber@aol.com>
Sent: Wednesday, April 30, 2014 1:10 PM
To: Tkachuk, Tyler
Subject: Re: I-43 Interchange WisDOT Project ID 1003-10-02

Tyler, thanks for the info. As I said on the phone if the cranes are going to be left in the air at night, anti collision lights should be installed and working. During the day you can notify the FAA as to the cranes location and they can post a NOTAM for the Beloit Airport on their site for pilots.

Steve Stauber

-----Original Message-----
From: Tkachuk, Tyler <Tyler.Tkachuk@aecom.com>
To: shstauber <shstauber@aol.com>
Cc: Fuchs, Randy <Randy.Fuchs@aecom.com>
Sent: Wed, Apr 30, 2014 12:13 pm
Subject: I-43 Interchange WisDOT Project ID 1003-10-02

Steve,

Below is a summary about the I-39/90 & I-43/WIS 81 interchange WisDOT Project ID 1003-10-02 that we briefly discussed on the phone today. The project maps are attached.

The Wisconsin Department of Transportation is designing the reconstruction of the I-39/90 and I-43/WIS 81 Interchange. The project study limits for this project are shown in the attached map (Exhibit 1). This project lies within two miles of the Beloit Airport and five miles from the Turtle Airport (see Exhibit 2). Previously, you might have received information regarding the Wisconsin Department of Transportation (WisDOT) – Southwest Region's plans for future improvements of the I-39/90 South Segment in Rock County (WisDOT ID: 1003-10-01). WisDOT has initiated a **separate** Environmental Assessment (EA) for the I-39/90 and I-43/WIS 81 interchange under WisDOT ID 1003-10-02.

The proposed interchange at I-39/90 and I-43/WIS 81 will include full reconstruction of the existing I-43 interchange. The highest elevation of the proposed interchange is 866 ft. During construction, there will be temporary cranes that are anticipated to extend up to 1,000 ft. in elevation. We do not believe the completed interchange will result in impacting the airspace for the Beloit airport.

Currently the EA is being completed and we would appreciate any comments you may have on this project.

Thank you,

Tyler Tkachuk, EIT
Transportation Engineer
D 608.828.8211
tyler.tkachuk@aecom.com

AECOM
1350 Deming Way, Suite 100, Middleton, WI 53562
T 608.836.9800 F 608.836.9767
www.aecom.com

Appendix 19 – National Resources Conversation Service (NRCS)

Tkachuk, Tyler

From: Ziegler, Jeremy - NRCS, Juneau, WI <Jeremy.Ziegler@wi.usda.gov>
Sent: Monday, August 04, 2014 3:43 PM
To: Tkachuk, Tyler
Subject: WisDot Project I.D. 1003-10-02: I-39/90 & I-43/WIS 81 Interchange

Tyler Tkachuk, EIT
AECOM
1359 Deming Way, Suite 100
Middleton, WI 53562

Re: WisDot Project I.D. 1003-10-02: I-39/90 & I-43/WIS 81 Interchange

Dear Mr. Tkachuk,

The Natural Resource Conservation Service (NRCS) has reviewed the project description as well as the documentation regarding the proposed project to I-39/90 & I-43/WIS 81 interchange. Since the site assessment score is below 60, this project is not subject to FPPA. Thank you for allowing the NRCS to comment on this project. If you have any further questions please let me know.

Jeremy Ziegler
Area Resource Soil Scientist SE-WI
451 West North Street
Juneau, WI 53039
Phone: 920-386-9999 Ex 122
Gov Cell 920-210-9007

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project: I-39/90 & I-43/WIS 81 Interchange	Federal Agency Involved: FHWA
Proposed Land Use: Interchange	County And State: Rocky County, WI
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ *(If no, the FPPA does not apply -- do not complete additional parts of this form).*		Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	No Build	1A	1B	2A
A. Total Acres To Be Converted Directly	3.0	90.0	83.0	88.0
B. Total Acres To Be Converted Indirectly	0.0	0.0	0.0	0.0
C. Total Acres In Site	3.0	90.0	83.0	88.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	11	11	11	11
2. Perimeter In Nonurban Use	10	6	6	6	6
3. Percent Of Site Being Farmed	20	12	13	15	12
4. Protection Provided By State And Local Government	20	0	0	0	0
5. Distance From Urban Builtup Area	15	0	0	0	0
6. Distance To Urban Support Services	15	0	0	0	0
7. Size Of Present Farm Unit Compared To Average	10	0	0	0	0
8. Creation Of Nonfarmable Farmland	10	0	0	0	0
9. Availability Of Farm Support Services	5	5	5	5	5
10. On-Farm Investments	20	0	0	0	0
11. Effects Of Conversion On Farm Support Services	10	0	0	0	0
12. Compatibility With Existing Agricultural Use	10	0	0	0	0
TOTAL SITE ASSESSMENT POINTS	160	34	35	37	34
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	34	35	37	34
TOTAL POINTS *(Total of above 2 lines)*	260	34	35	37	34

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

Reason For Selection:

(See Instructions on reverse side) **Form AD-1006 (10-83)**

This form was electronically produced by National Production Services Staff

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project: I-39/90 & I-43/WIS 81 Interchange	Federal Agency Involved: FHWA
Proposed Land Use: Interchange	County And State: Rocky County, WI
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ *(If no, the FPPA does not apply -- do not complete additional parts of this form).*		Acres Irrigated	Average Farm Size
Major Crop*(s)*	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	2A Modified	2B	3B	
A. Total Acres To Be Converted Directly	70.0	94.0	105.0	0.0
B. Total Acres To Be Converted Indirectly	0.0	0.0	0.0	0.0
C. Total Acres In Site	70.0	94.0	105.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	11	11	11	0
2. Perimeter In Nonurban Use	10	6	6	6	0
3. Percent Of Site Being Farmed	20	12	13	13	0
4. Protection Provided By State And Local Government	20	0	0	0	0
5. Distance From Urban Builtup Area	15	0	0	0	0
6. Distance To Urban Support Services	15	0	0	0	0
7. Size Of Present Farm Unit Compared To Average	10	0	0	0	0
8. Creation Of Nonfarmable Farmland	10	0	0	0	0
9. Availability Of Farm Support Services	5	5	5	5	0
10. On-Farm Investments	20	0	0	0	0
11. Effects Of Conversion On Farm Support Services	10	0	0	0	0
12. Compatibility With Existing Agricultural Use	10	0	0	0	0
TOTAL SITE ASSESSMENT POINTS	160	34	35	35	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	34	35	35	0
TOTAL POINTS *(Total of above 2 lines)*	260	34	35	35	0

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

Reason For Selection:

(See Instructions on reverse side) **Form AD-1006 (10-83)**

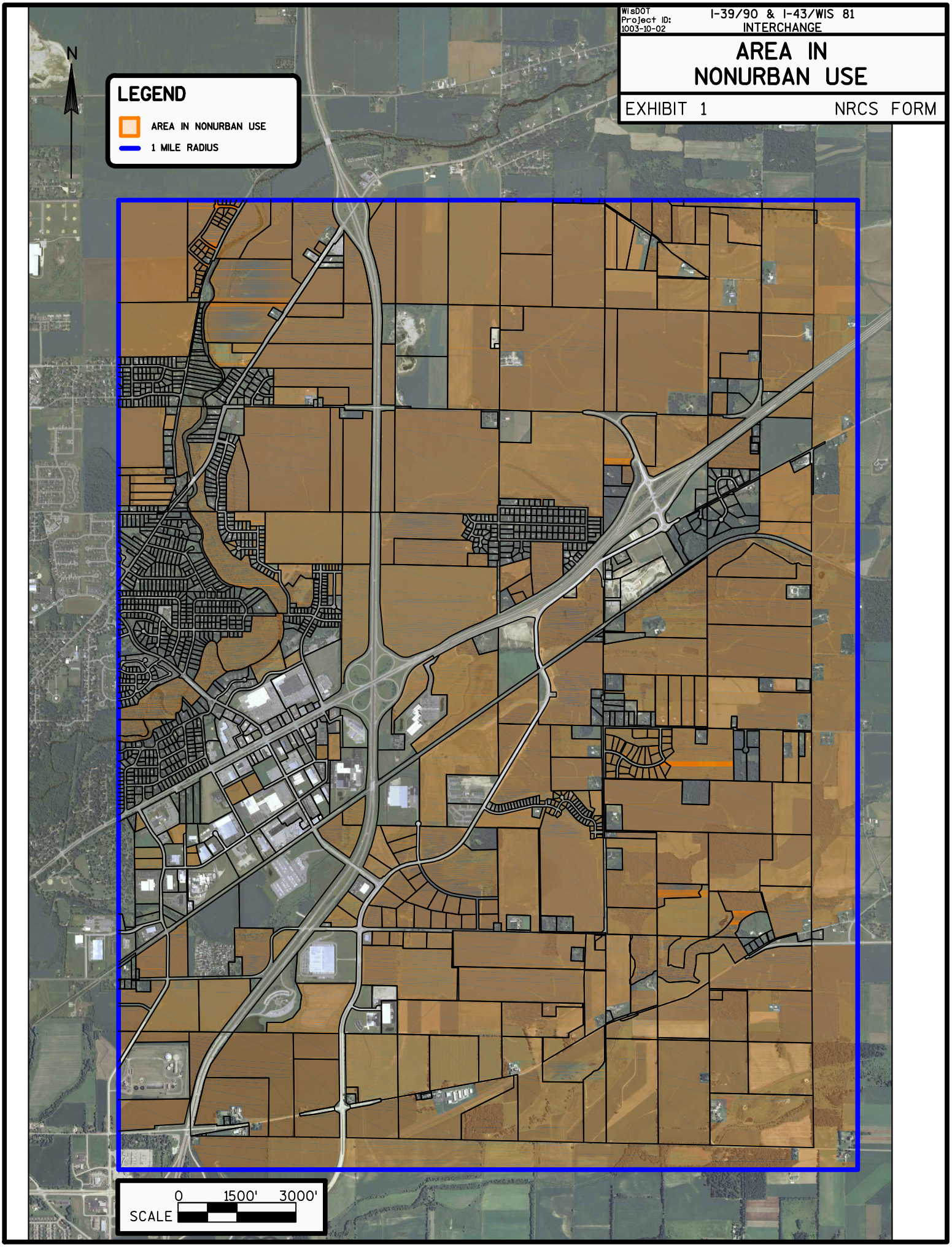
This form was electronically produced by National Production Services Staff

WisDOT Project ID: 1003-10-02

I-39/90 & I-43/WIS 81 INTERCHANGE

AREA IN NONURBAN USE

EXHIBIT 1 NRCS FORM



Appendix 20 – Agency Coordination Meeting Minutes 03/25/2014

Wisconsin Department of Transportation

WisDOT I-39 Agency Coordination Meeting for the I-43/WIS 81 and US 12/18 (Beltline) Interchanges

March 25th, 2014; 9 – 11 am
SWR Edgerton – Rock River A & B Rooms

Attendees:

Jennifer Grimes (WisDOT)
Jamie MacAlister (WisDOT)
Johnny Gerbitz (FHWA)
Jim Oeth (AECOM)
Steve Marshall (WisDOT)
Lisa Dreifuerst (OTIE)
Colin Fleming (SEH)
Andy Barta (DNR)
Laura Bub (DNR)
Eric Heggelund (DNR)
Tracey Blankenship (FHWA)
Craig Pringle (WisDOT)
Katrina Feltes (WisDOT)
Tyler Tkachuk (AECOM)
Mike Preboske (AECOM)
Randy Fuchs (AECOM)
Dan Ryan (AECOM)
Bob Battaglia (DATCP)
Alice Halpin (DATCP)

On the phone:

Simone Kolb (ACE)
Rebecca Graser (ACE)
Mike Sedlacek (EPA)
John Bridwell (WisDOT BPD)
Kim Cook (SHPO)

South Segment – I43:

Mike P. presented on the I-43 Interchange (see attached presentation - highlights of presentation as follow)

- I-43 Interchange study area extends from the Welcome center to Hart Road overpass along I-39 and from Cranston Road to CTH X/Hart Road interchange along STH 81/I-43.
- EA study in 2010 (original EA preferred Alternative). Had 2 diverges for I-43 and STH 81 along I-39. Those 2 diverges now occur at a single point.
- The new alternative has a new footprint with improved safety and enhance local mobility. Want new interchange to have a LOS of C or better.
- All of A alternatives – realign the mainline, 2 level tiered interchange
- All of B alternatives – same footprint as existing mainline, 3 level tiered interchange (structure costs are significantly higher for these alternatives)
- In reference to local access:
    - 1's have similar access to what is there today, no additional local road
    - 2's and 3's have additional road to provide local access east of I-39.
- After PIM a lot of support for the 2A and 2B alternatives.
- Design team analyzed 2A and 2B to determine what would work best. Came up with a combination of the 2's (modified 2A). Tightened up the system to system interchanges to help with constructability. Also saves on farmland impacts and reduces the footprint. Cost decreased from 2B because more of a 2 tiered interchange.

- 2 wetlands were ID'ed during surveys. Will impact a good portion of wetland R-31. 0.59 Ac represents the entire wetland; do not anticipate impact entire wetland. Do not anticipate impacting wetland R-30. Both are isolated wetlands.
    - Simone Kolb (Army Corps of Engineers) stated that:
        - A Preliminary JD isolated wetland is likely the easiest situation. Can write up, submit to EPA. Have 3 weeks to respond and if do not respond within 3 weeks, it is automatically approved.
        - An approved JD can take a fair amount of time and will be needed if wetland has any hydrological connection to anything. An isolated determination is quite an extensive process and can take a significant time. ACE does not have as much control on timing of approval as they cannot approve it until it is approved by EPA. The EPA can request additional information to be submitted.
    - Randy stated that R-31 may be an engineered detention pond. AECOM needs to look into this as the DNR does not take jurisdiction on these.
    - Randy stated if Wetland R-30 will be impacted, they will go ahead with a 404 permit and preliminary determination. Jenny recommends going with a preliminary determination for both of them. Randy and Simone agreed. WisDOT will request a preliminary jurisdiction determination on both wetlands (R-30 & R-31).
- Floodplain encroachment – 2 locations, see slide on presentation, which is the current updated map.
    - Johnny wanted to know how will compensate for lost storage in these areas
    - Mike said will be re-established during the design process to replace floodplain encroachments, possible solutions included additional ditch storage or an equalizer underneath the roadway.
- Historical Properties – 1 property identified. The historian is recommending no adverse effect because the footprint of I-43 near this site has not changed. Not buying any property from this.
- Initial letter – AECOM would like comments/initial concerns back from the DNR regarding the initial letter. The initial letter was submitted to the DNR in January, but AECOM has not had a response. Randy requested that they get one in the next week from Eric, Laura or Amanda (DNR). Eric and Laura will look into it. Eric determined that the DNR responded with their initial comments regarding the Interchange scoping with a letter dated January 7th, 2014 that was sent to Steve Marshall and Jenny Grimes.
- Public Involvement Coordination - City of Beloit passed a resolution recommending alternative 2A or 2B, but prefers having local access.
    - Randy stated that this is not a controversial project. Everybody is on board (the public, municipality, etc…).
- Planned park and ride is planned in the SW quad of the interchange.
    - Steve added they WisDOT still need a municipal agreement to maintain this. Meeting tomorrow with Beloit to discuss.
- I-90 Business Connection Group submitted letter to Steve Marshall regarding their preference of having traffic signals rather than roundabouts. Also would like the extension of WIS 81 to CTH

X/Hart Road signed as WIS 81 because that is a desired destination. (WIS 81 would start at CTH X/Hart Rd)

- Questions/Agency concerns:
    - Eric and Laura (DNR) stated they would not need jurisdiction if the one wetland is a detention/stormwater basin. However, they will need to discuss with the City of Beloit if they are using the pond as a stormwater basin.

North Segment – Beltline Interchange:

Lisa D. presented on the USH 12/18 Interchange (see attached presentation - highlights of presentation as follows:

- The limits of the EA impact analysis are signified by the gold colored dots on the presentation.
- Original EA alternative was to accommodate the expansion from 2 to 3 lanes. Did not look at deficiencies at the ramps and along US 12/18.
- Seeing extreme growth number of cars on the Beltline.
- When looking at the EB Beltline to NB Interstate, it has the highest volume of the ramps, with traffic counts that are higher than the interstate mainline traffic counts.
- EA preferred alternative included in the Phase 1 alternative. This adds a 3rd lane to the existing 2 lane section and associated ramp connections.
    - Johnny recommends changing "EA/FONSI Preferred Alternative" to "EA Re-Evaluation Alternative" OTIE agreed.
    - Need to remove access at Millpond Rd. and replace with a frontage road.
    - Meier Road overpass will have its own ER associated with it. It will provide an overpass over USH 12/18.

Colin Fleming (SEH) discussed Environmental related items.

- There are a lot of wetlands along beltline interchange, many of these will be impacted.
- Yarhara Hills Golf Course: Will be taking a minor amount of land due to box culvert extension. This will require a Section 4f. Working with the City of Madison and FHWA on this.
- Yellow on map signifies Tribal Trust land. (basically the Ho-Chunk Casino building)
- Potential historical property is the clubhouse on the Yahara Hills Golf Course.
    - Jenny added that the structure has some contemporary features – designer worked with Frank Lloyd Wright on other projects. Historical boundary could include the entire golf course.
- A large commercial data center currently exists on the NW quad of the beltline interchange – Trying to avoid.
    - Craig thought that it is a privately owned property that is leased out to the state of WI.
    - Colin added that site was developed privately. There is a lot of infrastructure invested in this site.
- There is a meeting being scheduled to occur in April to discuss water resources at the interchange (wetlands, drainage, stormwater) in more detail.
- Questions/Agency Concerns/Additional Comments:

- Regarding Drainage Meeting:
  - Eric Heggelund wants to be part of the wetland/stormwater/drainage/stream re-alignment
  - Jenny suggested inviting Simone Kolb, Wendy Braun, Ann-Marie Kirsch, Jamie MacAlister
  - Colin added that the Dane County Drainage Board is involved, but wasn't sure how much they wanted to be involved. Asked Eric (DNR) if they work with them much. He said no. Jamie suggested contacting Seth McClure (DOT) regarding drainage.
- Johnny commented that when looking at wetland impacts, should consider looking at the construction limits, rather than the footprint of the Beltline interchange. As all wetlands near the Beltline Interchange will likely be impacted.
  - Lisa clarified that their analysis (of wetland impacts) includes any wetland within the outer footprint of the construction area.
  - Johnny agreed.
- Jim Oeth asked to point out the wetland mitigation site (World Dairy):
  - Jenny said the site is 200 acres. "Project Constraints" slide shows the mitigation site in purple shading.
- Lisa explained that the reason the limits of the project goes so far to the North (CTH AB)/Buckeye Rd, is because of the high traffic counts coming from EB Beltline to the NB I-39 and the need to merge from 6 lanes, back down to 8 lanes.
- Lisa explained that when relocating Pennito Creek, will relocate to allow the beltline to expand to 4 lanes in the future. Trying to stay away from ATC poles ($2M each to relocate), Ho-Chunk property and Yahara Hills Golf Course. So trying to stay within the same footprint. There are really no wetlands on the east side and everything drains to the south. When looking at adding stormwater basins, it could be a challenge.
- Jenny is meeting with the City of Madison tomorrow (3.26.14) regarding the Capitol City Trail along the RR.
  - Johnny asked if this was for Rails to Trails. Jenny responded that trains will still be allowed along the rail-line. Grade separation may need to be higher for this.

Attachments to Meeting Minutes:

- Meeting Agenda
- I-43 Presentation
- USH 12/18 Presentation

*****Any Agency comments regarding the purpose/need for the WisDOT recommended alternative is requested by May 1st.*****

I-39 Agency Coordination Meeting
I-43/WIS 81 and US 12/18 (Beltline) Interchanges
March 25, 2014, 9:00 am
Rock River Room A & B – DOT SW Region – Edgerton Office
111 Interstate Blvd, Edgerton
Conference Line: 877-336-1286, Access Code 6279722

Agenda

I. Introductions

II. I-43/WIS 81 Interchange Environmental Assessment (WisDOT ID 1003-10-02)
1. Purpose & Need
2. Range of Alternatives
3. DOT Recommended Alternative (2A Modified)
4. Public Involvement
5. Schedule

III. US 12/18 (Beltline Interchange) Environmental Assessment (WisDOT ID 1007-10-02)
1. Purpose & Need
2. Range of Alternatives
3. DOT Recommended Alternative (Alt D – Turbine w/Collector-Distributor Road)
4. Public Involvement
5. Schedule

IV. Comments
1. Written requested by 5/1/14
2. Draft EA document availability period

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WISCONSIN DEPARTMENT OF TRANSPORTATION

I-39/90 Project



South Segment Environmental Agency Coordination Meeting for I-43 Interchange

March 25, 2014, 9:00 a.m.

WisDOT I-39 Project Field Office, Edgerton

U.S. Department of Transportation Federal Highway Administration

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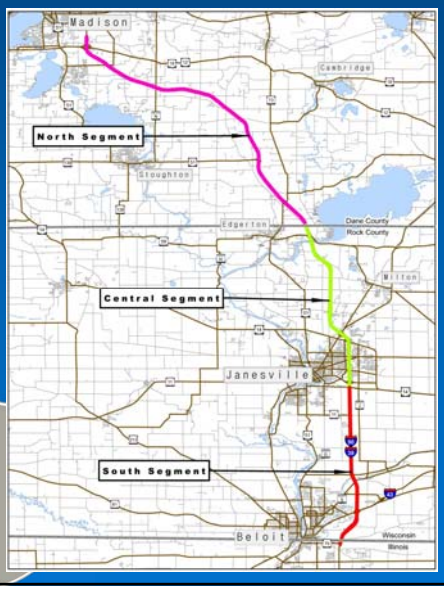
I-39/90 Project Overview

WISCONSIN DEPARTMENT OF TRANSPORTATION



- North Segment
  - Dane/Rock County Line to County AB (Buckeye Road)
- Central Segment
  - County O to Dane/Rock County Line
- South Segment
  - WI/IL Stateline to County O

U.S. Department of Transportation Federal Highway Administration

South Segment Overview

Overview

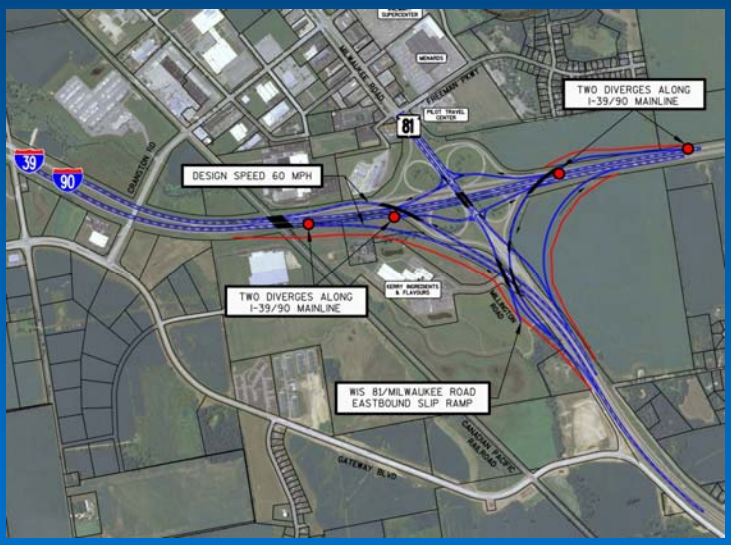
- 12 mile reconstruction and expansion of I-39
- Reconstruction of 3 interchanges
- Right of way acquisition required
- South Segment PIM held October 17, 2013
- I-43 Interchange PIM held December 10, 2013

Information Presented Today

Focus today is I-43 interchange

- Purpose & Need
- 5 Preliminary Alternatives
- Alternative Comparison Matrix
- WisDOT Recommended Alternative
- Wetland Locations
- Floodplain Encroachment
- Historic Property
- Environmental Findings
- Public/Local Municipality Input
- Schedule

Original EA Preferred Alternative



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I-43 Environmental Assessment

- Purpose
  - ✓ Meet Current Design Standards
  - ✓ Improve Overall Safety
  - ✓ Accommodate Future Traffic
  - ✓ Replace Aging Pavements/Structures
  - ✓ Enhance Local Mobility
- Need
  - ✓ Route Importance/System Linkage
  - ✓ Traffic and Roadway Capacity
  - ✓ Safety
  - ✓ Interchange Deficiencies

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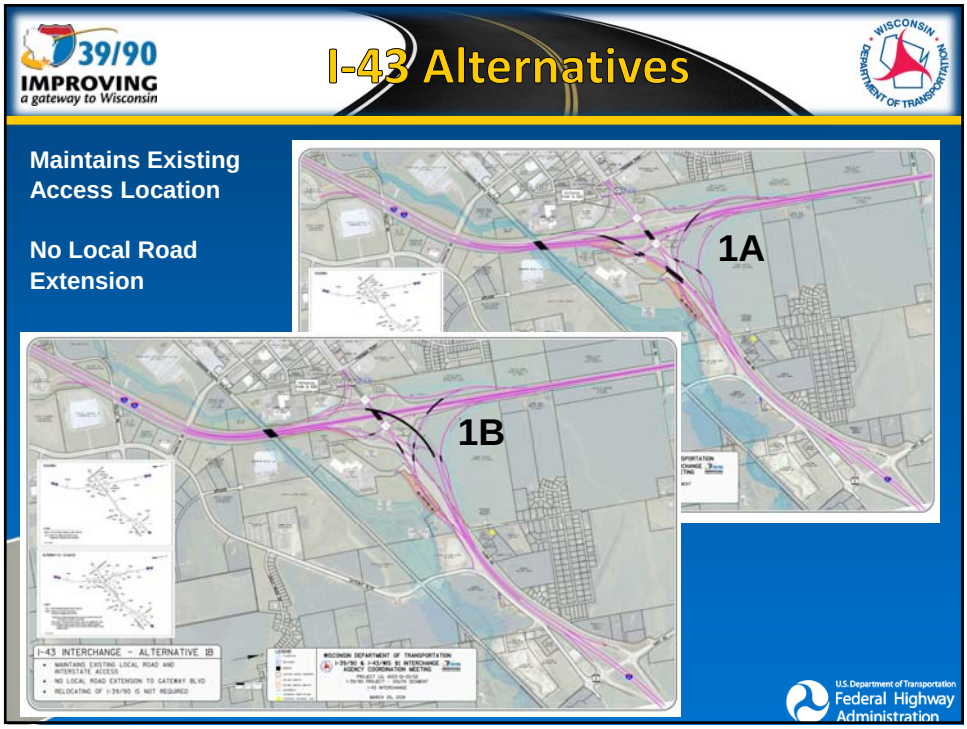
39/90
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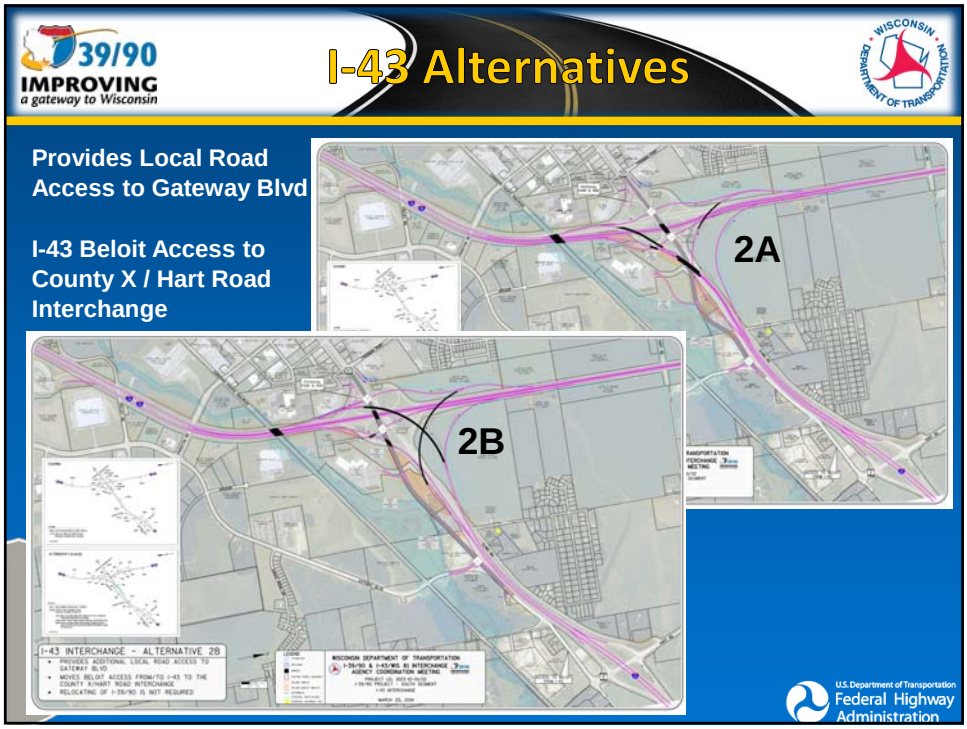
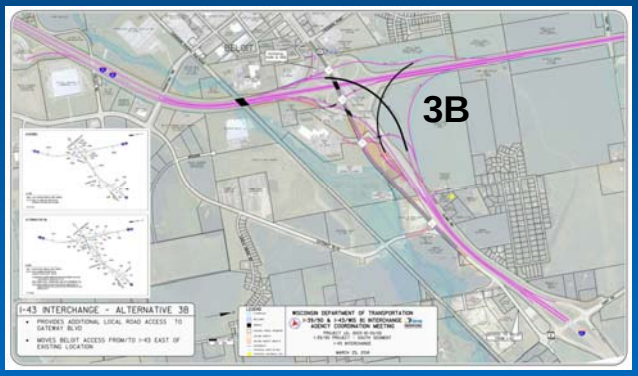
I-43 Alternatives
WISCONSIN DEPARTMENT OF TRANSPORTATION
Maintains Existing Access Location
No Local Road Extension
1A
1B
I-43 INTERCHANGE - ALTERNATIVE 1B
U.S. Department of Transportation
Federal Highway Administration


39/90
IMPROVING
a gateway to Wisconsin
I-43 Alternatives
WISCONSIN DEPARTMENT OF TRANSPORTATION
Provides Local Road Access to Gateway Blvd
I-43 Beloit Access to County X / Hart Road Interchange
2A
2B
I-43 INTERCHANGE - ALTERNATIVE 2B
U.S. Department of Transportation
Federal Highway Administration

I-43 Alternatives

Provides Local Road Access to Gateway Blvd

I-43 Beloit Access East of I-39/90



Comparison of Alternatives

Comparison Factor	No Build	1A	1B	2A	2A Mod.	2B	3B
Project Length (Lane Miles)	14	34	34	35	35	35	36
Construction Cost: Structures ($Mil)	0	29	39	30	36	48	53
Construction Cost: Non-Structures ($Mil)	19	59	65	62	61	65	66
Real Estate Cost ($Mil)	1	5	4	4	4	4	5
Total Cost ($Mil)	20	93	108	96	101	117	124
Farms Affected	3	7	7	7	7	7	7
Area From Farm Operations Required (Acres)	1.8	57	60	53	48	58	67
Wetland Area Converted to Right of Way (Acres)	0	0	0	0	0.6	0	0
Other Area Converted to Right of Way (Acres)	1.2	33	23	35	21.4	36	38
Total New Right of Way Area (Acres)	3	90	83	88	70	94	105
Buildings Required	0	1	1	1	1	1	1
Floodplain Encroachment	No	Yes	Yes	Yes	Yes	Yes	Yes
Stream Crossings	1	1	1	1	1	1	1
Endangered Species Affected	0	0	0	0	0	0	0
Potential Historic Properties	0	1	1	1	1	1	1
Archaeological Sites	0	0	0	0	0	0	0

WisDOT Recommended I-43 Alternative

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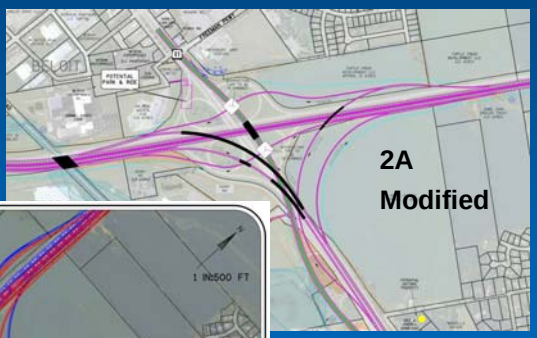
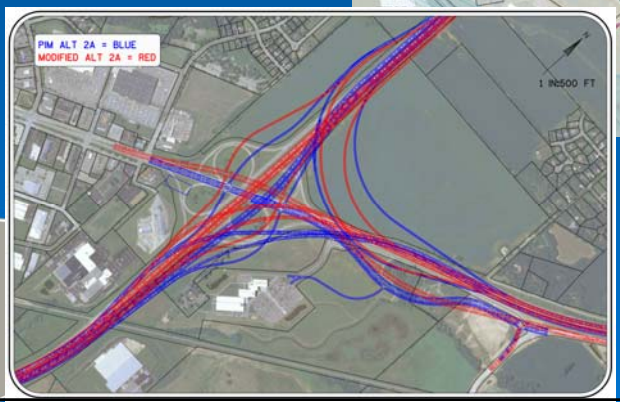
Provides Local Road Access to Gateway Blvd

I-43 Beloit Access to County X / Hart Road Interchange





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WisDOT Recommended I-43 Alternative Wetland Locations

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Wisconsin Department of Transportation

Wetland R-31

- Size – 0.59 acres
- Wet Meadow
- Troxel silt loam, 0 to 3 percent slopes
- Wetland Functional Value – Low

Wetland R-30

- Size – 0.18 acres
- Shallow Marsh
- Mahalasville silt loam
- Wetland Functional Value – Low

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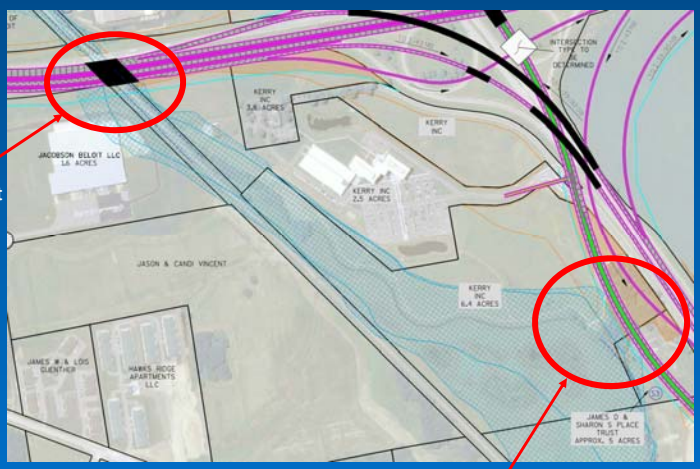
WisDOT Recommended I-43 Alternative Floodplain Impacts



WisDOT Recommended I-43 Alternative Historic Property

Environmental Findings

- Section 106, DNAE, and DOE
  - *One historic property (Gonstead Chiropractic Clinic)*
  - *Report submitted, approval pending*
- Wetland Delineation Report and Threatened and Endangered Species
  - *Two Wetlands found during survey*
  - *No T&E species were found*
  - *Reports submitted, approval pending*
- Hazardous Materials Report
  - *No sites impacted*

Public & Local Coordination

- Alternative Development Meetings (13)
- I-43 PIM held December 10, 2013
- City of Beloit Resolution recommending Alternative 2A or 2B

Public/Local Municipality Input

- Public Questions
  - Construction Phasing? – The goal is to keep all the ramps open
  - Noise Walls? – Do not anticipate the need
  - Floodplain Impacts? – Plan to replace lost area within interchange footprint
  - Ped/Bike Accommodations? – Incorporated into design
- Local Municipality/Business Questions
  - Park and Ride Lot? – Park and Ride planned
  - I-90 Business Connection Group
    - Install traffic signals versus roundabouts
    - WIS 81 starts at County X/Hart Rd. Interchange

Schedule

- Selection of Preferred Alternative – Spring 2014
- PIM – Summer 2014
- Public Hearing – Fall 2014
- FONSI – Early 2015
- Construction 2017 and 2018

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Project website
www.i39-90.wi.gov

Project Facebook
www.facebook.com/WisconsinI3990Project

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Appendix 21 – WisDOT Traffic Forecast

TRAFFIC FORECAST REPORT

PROJECT ID(S): 1003-10-01, 1005-10-01
ROUTE(S): IH-39 (w/o West Bypass)

DISTRICT/COUNTY(IES): SW / Rock
LOCATION: IL-WI State Line to Rock Co - Dane Co Line
COMPLETED: 1-17-12. Revised by KT 4-4-12, Revised by VSH 08-20-12

Traffic Forecasting Section; Bureau of State Highway Programs; Division of Transportation Investment Management

Developed by: Kim Tran, Revised by Vicki Haskell
Phone: (608) 264-7265 (Kim Tran);
(608) 266-2571 (Vicki Haskell)
FAX #: 608-267-1856
E-Mail ID:kim.tran@dot.wi.gov,

ROUTE(S):	Site ID# 530001	Site ID# 531462	Site ID# 530275
Design Volume(s):	71100	94300	81300
K250	8.8	8.7	8.0
K100	9.9	9.8	9.0
K30	10.6	10.4	9.6
T(DHV)	18.6	24.2	22.5
D (Dsgn hr)	58/42	58/42	58/42
K8(ADT)	--	--	--
T(A8HV)	--	--	--

Truck Class %'s

Truck Class	530001	531462	530275
2D	3.6	4.6	4.3
3AX	0.7	0.9	0.8
2S1+2S2	2.6	3.3	3.1
3-S2	21.0	27.2	25.2
DBL-BTM	1.2	1.8	1.7
TOTAL	29.1%	37.8%	35.1%

Specify Last Count & Forecast Years:

{000}	2010	COUNT
(000)	2016	AADT
-000-	2028	AADT
000	2040	AADT

Notes on the Forecast:

1. Truck classification percentages for IH-39 were taken from 2008 Wisconsin Vehicle Classification Data, Site ID # 530001, I-39-90 - 3.7 MI S OF STH 59 - NEWVILLE, which is estimated at 29.1 %.

2. Truck percentages of SiteID#530738 and 530335 are from the length based classification data in 2010.

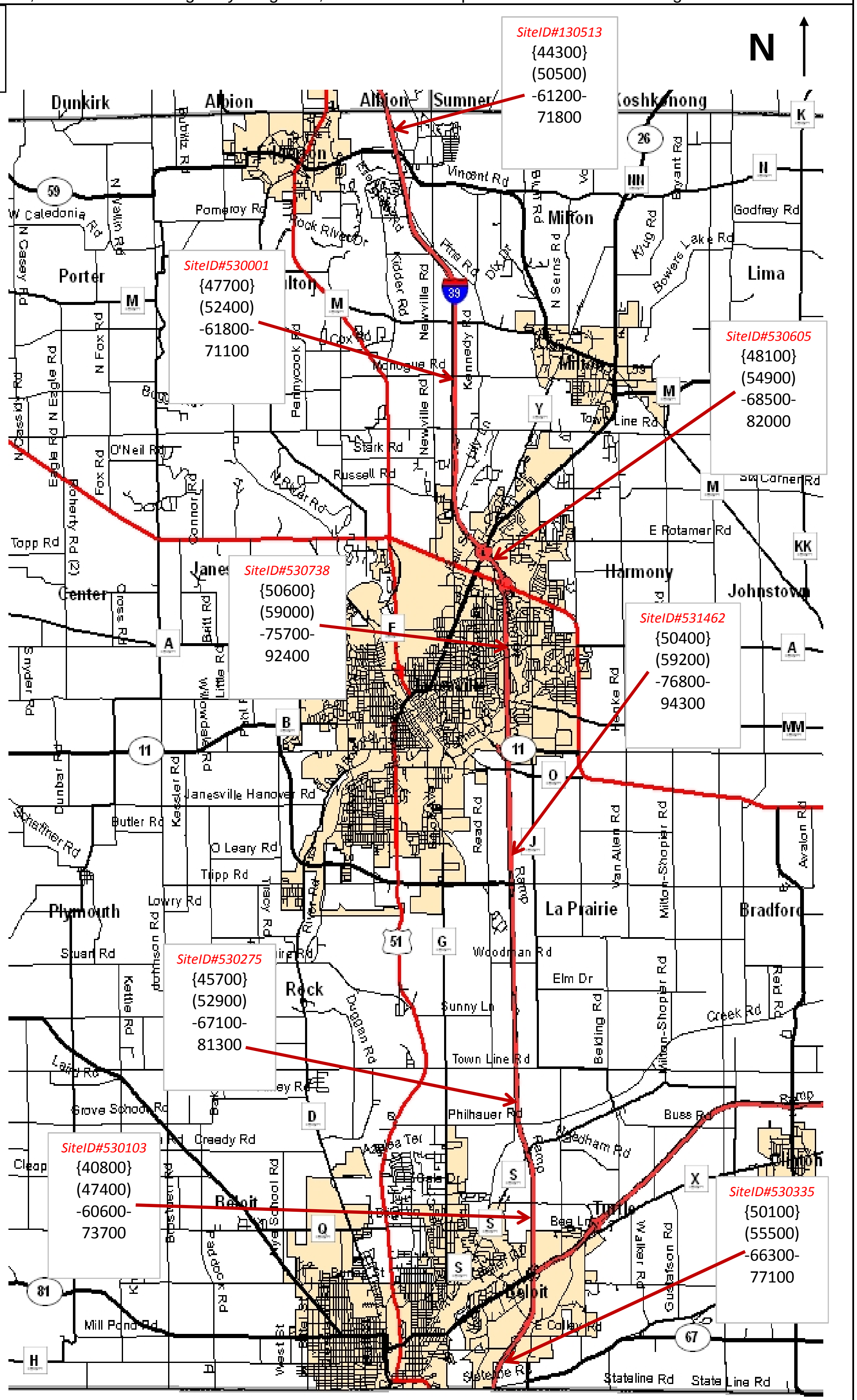
3. The historical traffic count trends will continue increasing at a decreasing rate. BoxCox regression is used to project past count data.

4. IH-39 is a factor group III highway indicating little fluctuation in traffic throughout the year. It is considered a rural interstate highway for count purposes along this segment of highway.

5. In this project, the Rock County Travel Demand Model was consulted and used as a comparison tool to check against the Traffic Analysis Forecasting Information System output. Adjustments were made as needed.

6. IH-39 is assumed to be an 8-lane (4 lanes / direction) facility between Avalon Rd/STH-11 and STH 26.

7. Site ID#530001: Between Madison and Janesville Rural; Site ID#531462 : Janesville Rural; Site ID# 530275: Janesville to Beloit Rural.



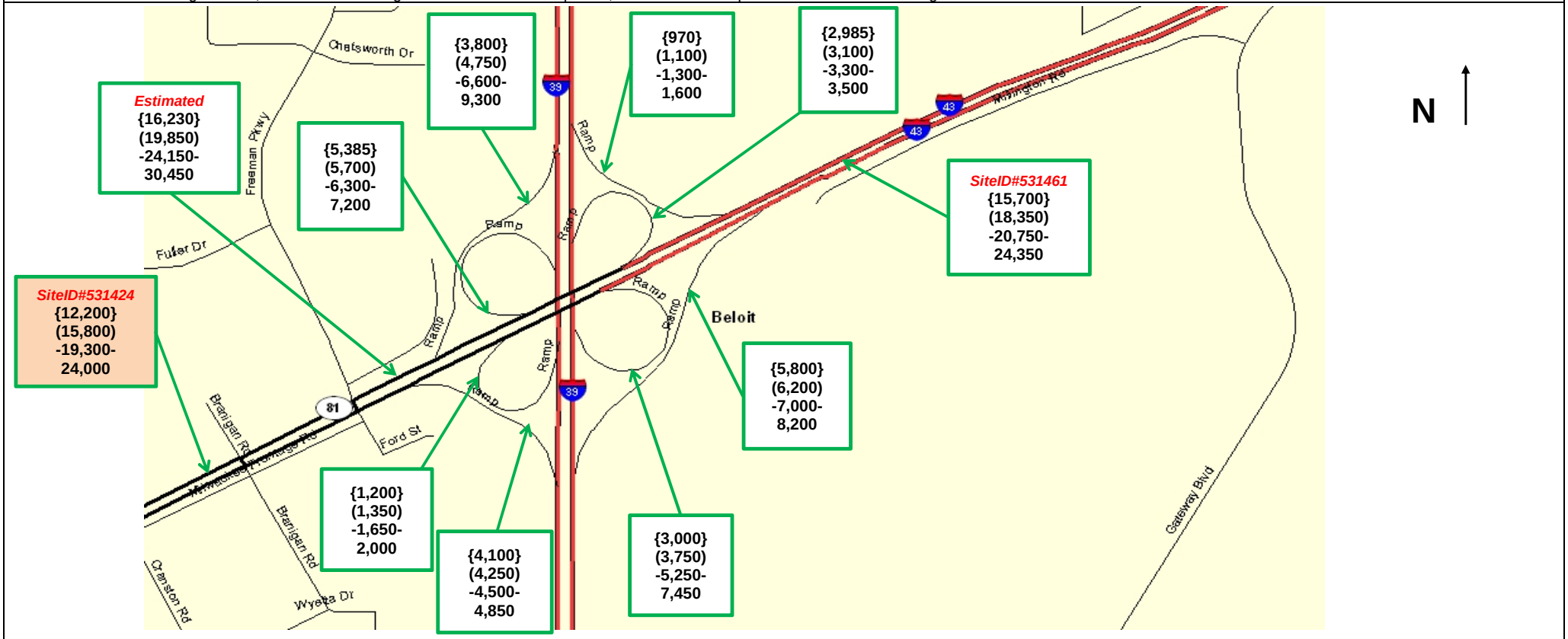
TRAFFIC FORECAST REPORT

PROJECT ID(S): 1003-10-01
ROUTE(S): IH-43/STH 81 (Milwaukee Rd)
CONDITION: Existing (AADT)

REGION/COUNTY(IES): SW/Rock
LOCATION: IH-39/90 Ramp Interchange
COMPLETED: August 22, 2012, Revised April 9, 2013

Developed by: Vicki S. Haskell
Phone: (608) 266-2571
FAX #: (608) 267-0294
E-Mail ID:vicki.haskell@dot.wi.gov

Traffic Forecasting Section; Bureau of Planning and Economic Development; Division of Transportation Investment Management



Design Values (%)

Routes → / Design Volume(s):	STH 81 (530483)	IH- 43 (640348)	
	30,450	24,350	--
K250	9.1	9.4	--
K100	9.9	10.5	--
K30	10.5	11.5	--
T(DHV)	8.0	11.9	--
D(Dsgn. Hr.)	59/41	58/42	--
K8(ADT)	--	--	--
T(A8HV)	--	--	--

Last Count/Forecast Years:
{000} 2010 AADT-Count
(000) 2015 AADT-Forecast
-000- 2025 AADT-Forecast
000 2040 AADT-Forecast

Truck Class %'s

Class	Seg. 1	Seg. 2	Seg. 3
2D	3.6	2.3	--
3AX	0.3	0.9	--
2S1+2S2	2.6	3.1	--
3-S2	2.5	11.3	--
DBL-BTM	0.3	1.0	--
TOTAL	9.3%	18.6%	--

Notes on the Forecast:

1. This projection assumes that no major new traffic generators will be developed in the area served by the roadway or intersections over the course of the planning period.

2. In this project, the Rock County Travel Demand Model was consulted and used as a comparison tool to check against the Traffic Analysis Forecasting Information System output. Adjustments were made as needed. The historical traffic count trends will continue increasing at a decreasing rate. BoxCox regression is used to project past count data.

3. IH-39/90 was modeled primarily as a 6-Lane facility (3-lanes in each direction). The segment of IH-39/90 between Avalon Road/STH 11 and STH 26 was modeled as an 8-lane facility (4-lanes in each direction).

MORE NOTES ON THE FORECAST:

4. Truck classification percentages for STH 81 were taken from the 2008 Wisconsin Vehicle Classification Data (Site # 530483-USH 81/Milwaukee Rd east of Morgan Terrace in Beloit, Rock County). Total truck classification percentages for IH- 43 were taken from the 2012 Wisconsin Vehicle Classification Data (Site # 640348 - IH-43 3.0 miles south of STH 50, Delavan, Walworth County).

5. IH-43 east of IH-39/90 is a factor group III & STH 81 west of IH-39/90 is a factor group II highway indicating little fluctuation in traffic throughout the year. IH-43 east of IH-39/90 considered a rural principal arterial - interstate for count purposes. STH 81 west of IH-39/90 is considered an urban principal arterial for count purposes.