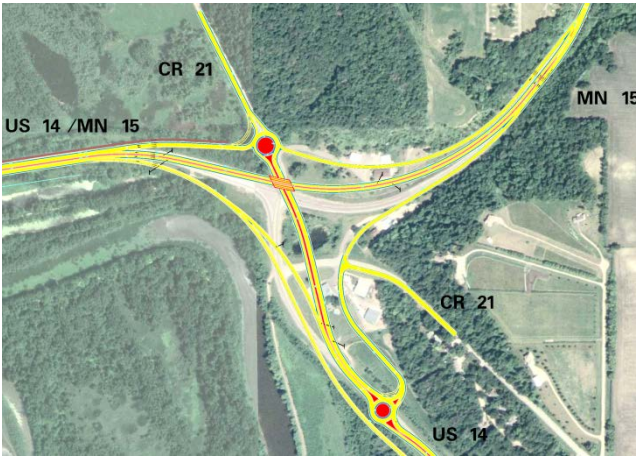




Final Environmental Impact Statement

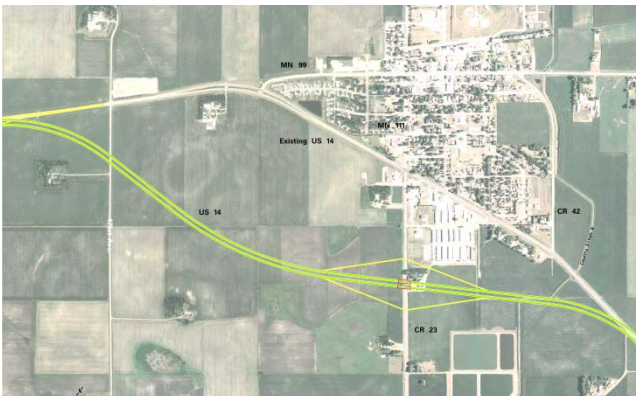


US 14 Reconstruction



*District 7 – Mankato
S.P. 5200-03 – From Front St.
in New Ulm to County Road 6
in North Mankato*

*Nicollet and Brown Counties,
Minnesota*



December 2011

US 14
From Front Street in New Ulm
To Nicollet County Road 6
Brown and Nicollet Counties, Minnesota

Minnesota State Project Number 5200-03

FINAL ENVIRONMENTAL IMPACT STATEMENT AND SECTION 4(F) EVALUATION

Submitted Pursuant to 42 U.S. C. 4332 (2)(c), 49 U.S. C. 303,
And Minnesota Statutes, Chapter 116D

Submitted by:

U.S. Department of Transportation, Federal Highway Administration
and Minnesota Department of Transportation

COOPERATING AGENCIES

US Army Corps of Engineers
US Fish and Wildlife Service
US Department of Agriculture, Natural Resource Conservation Service

This FEIS describes and evaluates alternatives associated with upgrading from two lanes to four lanes, a 22.5 mile section of US 14 from Front Street in New Ulm (Brown County) to County Road (CR) 6 near North Mankato (in Nicollet County). The project is located primarily in Nicollet County with portions in Brown County.

REVIEWED AND RECOMMENDED:

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Appendices

- A Final Section 4(f) Evaluation
- B Section 106 Memorandum of Agreement
- C List of Preparers
- D Distribution List
- E Aerial Photo Exhibit

Acronyms

ADT	Average Daily Traffic	NAC	Noise Area Classification
APE	Area of Potential Effect	NEPA	National Environmental Policy Act
ATP	Area Transportation Partnership	NPDES	National Pollutant Discharge Elimination System
BMP	Best Management Practices	NRCS	Natural Reserve Conservation Service
BNSF	Burlington Northern Santa Fe	NWI	National Wetland Inventory
BWSR	Board of Water and Soils Resources	OHWL	Ordinary High Water Level
CAAA	Clean Air Act Amendments	ORVW	Outstanding Resource Value Water
CEQ	Council on Environmental Quality	PEM	Palustrine emergent
CMEC	Central Minnesota Ethanol Co-op	PFO	Palustrine forested
CSAH	County State-Aid Highway	PMT	Project Management Team
CWA	Clean Water Act	PQI	Pavement Quality Index
DEIS	Draft Environmental Impact Statement	PSR	Pavement Serviceability Rating
EPA	Environmental Protection Agency	PSS	Palustrine scrub-shrub
FHWA	Federal Highway Administration	PUB	Palustrine unconsolidated bottom
FIRM	Flood Insurance Rate Maps	PWI	Public Water Inventory
GIS	Geographic Information System	R/W	Right of Way
GP/LOP	General Permit / Letter of Permission	RTC	Regional Trade Center
GRR	Great River Road	SDD	Scoping Decision Document
HPDP	Highway Project Development Process	SHPO	State Historic Preservation Office
ISD	Independent School District	SIP	State Implementation Plan
LMIC	Land Management Information Center	SR	Surface Rating
LOS	Level of Service	TAC	Transportation Advisory Committee
LXL	Little Falls - Morrison County Airport	TDM	Transportation Demand Management
MIS	Multiple Listing Service	TH	Trunk Highway
Mn/DNR	Minnesota Department of Natural Resources	USACOE	United States Army Corp of Engineers
MnDOT	Minnesota Department of Transportation	VCTAP	Voluntary Cleanup/Technical Assistance Program
MPCA	Minnesota Pollution Control Agency	VIC	Voluntary Investigation and Cleanup
NAAQS	National Ambient Air Quality Standards	WCA	Wetlands Conservation Act

Summary

Summary

What is the US 14 Final EIS?

An Environmental Impact Statement (EIS) is a document used to describe the anticipated effects of major public projects. It discloses anticipated effects to the public and interested parties, and helps decision makers make sound decisions. An EIS is written to comply with the National Environmental Policy Act (NEPA), a federal statute that directs federal agencies to use a systematic interdisciplinary approach when federal actions have a potential impact on the environment. Rules concerning implementation of NEPA are issued by the U.S. Council on Environmental Quality, and may be found at 40 CFR 1500. At the state level, an EIS must also comply with the Minnesota Environmental Policy Act (MEPA), which contains the legal basis for these studies (Minnesota Statutes, Chapter 116D).

In December 2007, the Federal Highway Administration (FHWA) and the Minnesota Department of Transportation (MnDOT) completed and published the Draft EIS (or DEIS) for the US Highway 14 corridor from New Ulm to North Mankato, Minnesota. The DEIS compared project alternatives to help readers understand the potential environmental effects. However,

the DEIS did not recommend one single course of action, or a “Preferred Alternative.” Following the circulation of the DEIS, a number of public meetings were held, and both the general public as well as interest groups and public agencies submitted comments on the proposed action. Following these activities MnDOT and FHWA identified which alternative analyzed in the DEIS should be selected for construction, i.e. the “Preferred Alternative.” The present document, the Final Environmental Impact Statement (FEIS) identifies this alternative, discloses the anticipated effects, and describes the basis for its selection.

The US 14 DEIS compared project alternatives but did not recommend a Preferred Alternative. The FEIS identifies the Preferred Alternative – the vision for the highway at full build out – and discloses the impacts associated with it. This FEIS summary provides an overview of the information presented in the FEIS. It is more concise, discussing in detail only the most important issues.

This FEIS Summary provides an overview of the information presented in the FEIS. In addition to the details presented in the FEIS itself, more information is found on the Project Website: www.dot.state.mn.us/d7/projects/14newulmtonmankato. The EIS included discussion of all required environmental topics; however, some topics emerged as more important to understanding the tradeoffs between the alternatives than others. These topics (including transportation, land use, communities, water/natural resources, visual resources, and cultural resources) received a higher level of attention in the EIS than other environmental topics.



Where is the project?

The project is located about 70 miles south-southwest of the Minneapolis-St. Paul, Minnesota metropolitan area between the cities of New Ulm and North Mankato in Brown and Nicollet Counties. The cities of Courtland and Nicollet are along the 22.5 mile route.

What is proposed?

The project involves upgrading the existing 2-lane highway to a 4-lane divided expressway. This may include interchanges or other improved intersection designs at major state highway and county road intersections as well as at-grade intersections at other public roads. The proposed upgraded highway will follow the existing route except for proposed bypasses of Courtland and Nicollet. The design will follow applicable standards for new construction of a rural expressway in flat to rolling topography with a 70 mph design speed.

Why is the project needed?

Improvements to US 14 will address a variety of traffic operational problems that were documented in the *14 West Interregional Corridor Management Plan* (June 2003). These include variations in design through the corridor, safety problems, limited capacity to convey traffic, and highway design deficiencies. Improving the highway will also enhance the corridor's interregional trade function and respond to governmental and public support for improvements to US 14. These issues are discussed below and in depth in Section 1 of the FEIS.

System Continuity

- The EIS study area (between New Ulm and North Mankato) is the only part of the designated US 14 interregional corridor (from New Ulm to Rochester) not already upgraded or approved for upgrading to a four lane highway.
- Within the project area highway design characteristics are inconsistent, ranging from a main street design with numerous accesses in Courtland to standard, rural two-lane design with spot intersection improvements such as turn lanes and acceleration lanes.

Safety Deficiencies and Needs

- Crash rates at the most heavily used intersections exceed statewide averages. The US 14/MN 15/CR 21 intersection is the biggest concern with a history of fatalities and severe injury crashes. The intersections with CR 37, MN 99, and MN 111/CR23 are also crash problem areas.
- Lack of passing zones which results in drivers taking risks to pass in the limited space allowed. These lead to more crashes, including head-on and sideswipe crashes which accounted for 22% of crashes between 2007 and 2009.

Capacity Deficiencies and Needs

- A forecasted increase in traffic congestion for the entire corridor resulting from high traffic volumes, a high percentage of trucks, and the lack of passing opportunities.
- Parts of US 14 now operate below 55 mph, which is MnDOT's Interregional Corridor average speed performance target. This is partially due to speed limits of 35 mph in Courtland and 45 mph in Nicollet. Without improvements, most of the corridor is expected to operate below 55 mph by 2025.



- Increasing traffic, including through-town truck traffic, will have a continuing and increasing adverse impact on the growing communities of Courtland and Nicollet.
- Multiple intersections are at high risk for requiring traffic signals, which would further reduce average speed.

Highway and Bridge Design Deficiencies and Needs

- Limited sight distance at CR 21 and CR 37 gives entering vehicles warning of approaching vehicles;
- Skewed intersections at numerous intersections increase the risk of entering vehicles' drivers failing to see oncoming traffic;
- Lack of left turn lanes at numerous intersections requires turning vehicles to wait in the through lane, increasing risk of crashes and limiting mainline speeds;
- A large number of accesses per mile which statistically correlates with higher crash rates and reduces average speeds and may be partially responsible for the greater than average crash rates on this corridor;
- The Minnesota River Bridge is two lanes. The bridge is rated as structurally deficient and functionally obsolete and will be more than 50 years old by the time highway improvements are made. Since the highway on both ends of the bridge will be four lanes, not expanding the bridge would create a bottleneck effect as traffic transitions from four lanes on both bridge ends.

What alternatives were considered in the EIS?

The project needs shaped the development of viable improvement alternatives. Many alternatives were considered in the *14 West Interregional Corridor Scoping Document* (March 2003). These were reduced to the most promising in the *14 West Interregional Corridor Scoping Decision Document* (May 2003) and the *Amended Scoping Decision Document* (October 2005). Those that remained were studied in depth in the EIS. This section provides an overview of the alternatives that are described in detail in Section 2 of the FEIS.

The “No Build” Alternative provided the baseline.

The No Build Alternative served as a baseline for comparison to the Build Alternatives. Improvements under this alternative are limited to normal pavement maintenance, spot traffic operational improvements, and minor safety improvements. The No Build Alternative retains the existing roadway's current physical characteristics, curvature, and typical section (i.e., pavement and shoulder width). Routine maintenance is the only planned construction, which typically includes pavement resurfacing or patching and minimal safety enhancements.

The “Build” Alternatives differed by highway location.

The Build Alternatives evaluated in the EIS consisted of corridor locations, or alignments, that were refined through an extensive study process (see Section 2 of the FEIS and the Project Website for more information). All Build Alternatives were designed as 4-lane divided highways. Two-lane alternatives were eliminated from consideration during the scoping process because a two lane highway would not fully address existing and future safety and

traffic operation problems. Also, the two-lane configuration would not have provided for system continuity, as discussed above.

Exhibit F-S-1 (at the end of this Summary) shows the US 14 study area, including the alternative corridor locations which were evaluated in detail. For reader clarity, the overall project has been divided into West and East Study Sections with CR 12 on the west side of Courtland as the border between them. Brief descriptions of the Build Alternatives in each Study Section follow below. All of the alternatives included the following features:

- Four intersections requiring special designs—specifically, where US 14 meets: MN Highway 15 near New Ulm, CR 37 near New Ulm, CR 24 in Courtland, and MN 111/CR 23 in Nicollet. Interchanges were considered for analyzing impacts as they provide the ultimate long term solution to safely manage increasing traffic at the major crossroads. If interchanges are not yet indicated at the time of construction other at-grade intersection designs will be considered, including standard stops on the minor roads, roundabouts, or restricted crossing U-turns.
- All alternatives included bypasses of Courtland (one route) and Nicollet (four alternative routes). At these locations, bypasses are needed to maintain or improve mobility and safety while avoiding substantial adverse community impacts.
- Consolidated access points at intersections and driveways—specifically, there would be fewer public road access points and limited private access.

Alternatives from New Ulm to Courtland (West Study Section)

All alternatives in the West Study Section included expansion of the US 14 Minnesota River Bridge from two to four lanes. Prior studies, including an origin destination survey completed for the US 14 Comprehensive Management Plan, found no need to change the river crossing location.

In the EIS the West Study Section included one alternative that used existing US 14 (W1), one on the bluff top (W2), and one that was a combination (W3).

Alternative W1 has been selected as the Preferred Alternative

Beyond the bridge, three alternative alignments were considered for US 14:

- **Preferred Alternative W1. Existing US 14/Minnesota River Alignment**— Alternative W1 has been selected as the Preferred Alternative in the West Study Section. The Preferred Alternative W1 follows existing US 14 from the Minnesota River to a point west of Courtland, where it leaves the existing highway to bypass Courtland to the north. This alternative maximizes use of existing US 14. The design and operation is constrained by its location between the bluff and the Minnesota River and by existing development adjacent to the highway.
- **Alternative W2. Top-of-Bluff Alignment**— Alternative W2 would have departed existing US 14 at the MN 15 intersection and climbed to the top of a prominent bluff approximately 150 feet above the existing highway elevation. The Alternative W2 corridor then followed an entirely new alignment along the top of the bluff to a point west of Courtland, where it



bypassed Courtland to the north. Alternative W2 included a steep grade where it would climb the bluff, as well as a substantial bluff cut.

- **Alternative W3. River/Bluff Combination Alignment** – Alternative W3 was a combination of Alternatives W1 and W2. It was developed to utilize the existing highway between the US 14 Minnesota River Bridge and CR 37 then climb the bluff and follow the route for Alternative W2.

Alternatives from Courtland to Nicollet (East Study Section)

All alternatives in the East Study Section included a north Bypass of Courtland. Access to Courtland is proposed to be at an interchange at an extension of CR 24 up the slope north of the city. While other bypass corridors were studied in this area, this route provided the best overall choice, due to its location near the community and the ability to reduce environmental impacts farther north, especially wetlands and farmland.

All eastern Build Alternatives included expansion of existing US 14 from approximately 478th Street (southeast of Nicollet) to CR 6 at the eastern end of the study area.

The East Study Section included three alternatives (E1, E2, and E3) that bypassed Nicollet just south of the existing developed area, each with two access location options: at CR 23 or connecting to a re-routed MN 99 on the east side of Nicollet. Alternative E4 connected with CR 23 about one mile south of existing US 14.

Alternative E1 with a access at CR 23 has been selected as the Preferred Alternative

Between the Courtland bypass and the common alignment east of Nicollet, four alternatives were considered in the EIS for the bypass of Nicollet:

- **Preferred Alternative E1. Nicollet Near South Bypass Alignment** – Alternative E1 has been selected as the Preferred Alternative. It makes the most use of existing US 14 from Courtland to Nicollet, thereby minimizing farmland impacts. Alternative E1 then bypasses Nicollet to the south. The Preferred Alternative includes providing access to Nicollet at CR 23 and accounts for the impacts of a possible interchange.
- **Alternative E2. Nicollet South Bypass – South of Swan Lake WMA Alignment** – Alternative E2 was proposed to avoid the Swan Lake WMA to the south. It also avoided a number of residential properties along existing US 14. In Nicollet it was similar to Alternative E1 with two access location options.
- **Alternative E3. Nicollet South Bypass – Section Line Alignment** – Alternative E3 was proposed to further avoid residential properties and property severances by following a section line. It also helped to avoid impacts to the Swan Lake WMA. In Nicollet, it was similar to Alternatives E1 and E2 with two access location options.
- **Alternative E4. Nicollet Far South Bypass** – Alternative E4 was proposed to bypass Nicollet much farther to the south, connecting to CR 23 about one mile south of existing US 14. West



of Nicollet it was the same as Alternative E3. Alternative E4 included only one proposed access location at CR 23.

Is there a Preferred Alternative?

Yes. Following a thorough analysis of transportation benefits, consideration of potential environmental impacts, and input from the public and agencies, FHWA and MnDOT have identified a Preferred Alternative for the project. The Preferred Alternative consists of Alternative W1 in the west project segment and Alternative E1 in the east project segment. The Preferred Alternative is the best overall choice meeting identified project needs while providing the best overall balance of reducing environmental impacts.

Why is the Preferred Alternative preferred?

By remaining on the existing alignment in the West Study Section, the Preferred Alternative avoids major bluff cuts in environmentally sensitive areas and saves money by crossing Heyman's Creek at a location that will not require long bridges. It also greatly reduces impacts to farmlands. While it has more floodplain and wetland impacts, upgrading on the existing route (which would remain in place for access and as a collector road even if a different alternative was selected) allows for improved water quality through treating the runoff. It also most effectively connects traffic generators along the corridor.

In the East Study Section the Preferred Alternative provides the best balance between farmland and wetland impacts while responding to the interests of the City of Nicollet to have access close to existing development. It also reduces long term maintenance by utilizing the existing route as much as possible instead of introducing another highway parallel to the existing east-west roads.

What are the anticipated project impacts?

One of the primary purposes of an EIS is to document the social, economic and environmental impacts of a proposed action. Section 3 of the DEIS identifies the potential impacts for all the alternatives. Much of that information is reproduced in Section 3 of the FEIS, but more detail is provided on the impacts of the Preferred Alternative. Table F-S-1 (Summary – Pages 10-12) and the discussion below summarize the FEIS information.

Impacts to Transportation, Land Use, and Communities

The first broad impact category in the FEIS Summary discusses how US 14 relates to people, both those who drive on the highway and those who live nearby. The No Build Alternative would continue the trend of increasing transportation problems, such as congestion and crashes, and the resulting economic consequences. Properties and development adjacent to existing US 14 would also be affected by increasing traffic, especially in Courtland and Nicollet.

West Study Section

In this section of the project, the alternatives differed primarily in relation to the Minnesota River valley. The Preferred Alternative (western Alternative W1) made more use of the existing highway and reduced impacts to agricultural land uses. The Preferred Alternative west of CR 37 is constrained by the Minnesota River and bluff. This section of the Preferred Alternative will include a narrow median with a median barrier. The goal will be to have as narrow a



median as possible, consistent with safety and sound engineering practice, to minimize environmental impacts.

While the top-of-bluff alignment (Alternative W2 and parts of Alternative W3) would have reduced residential relocations and access issues, especially at Minnesota Valley Lutheran High School and residential areas, it would have required steeper grades for US 14 traffic, necessitated construction of long bridges over Heyman's Creek, and affected much more farm land.

East Study Section

In the east segment, the Preferred Alternative (as well would Alternatives E2 and E3) will provide convenient interchange access near existing development in Nicollet. Being located on existing US 14, the Preferred Alternative provides less opportunity to limit direct highway access from local residences and businesses. Alternatives E2, E3, and E4 would have reduced access issues and impacts to existing buildings.

The Preferred Alternative will cause less impact to agricultural land and operations than any of the other alternatives. It impacts the fewest agricultural parcels, results in the fewest severances (tied with Alternative E2) and has the least acquisition of agricultural land. The Preferred Alternative results in the least amount of prime farmland and total acres being acquired.

Alternative E4, being about one mile south of existing US 14 in Nicollet, was much less convenient to the local community and other state highways.

Impacts to Water Features and Natural Resources

This impact category considers the Minnesota River valley, wetlands, and other natural resources. The No Build Alternative would have avoided most impacts to these resources, but would have resulted in reduced mobility and other adverse social and economic impacts as discussed above.

West Study Section

Natural resources associated with the Minnesota River Valley include floodplains, wetlands, and wooded bluff slopes that are subject to erosion when disturbed. The Preferred Alternative, by using the existing highway, reduces overall environmental impacts (especially to the wooded bluffs) compared to a road on new alignment, but it does result in more floodplain and wetland impacts compared to Alternative W2 that cuts up through the bluff.

East Study Section

The Swan Lake Wildlife Management Area (WMA) is a natural resource area located just west of Nicollet along existing US 14. US 14 currently goes through part of the WMA. The Preferred Alternative will expand the existing US 14 cross section within the WMA, affecting approximately six acres. By being located further to the south, other Alternatives had less direct impact to the -WMA.

The Preferred Alternative will impact approximately three more acres of wetlands than Alternative E4, but will have fewer wetland impacts than the other alternatives considered. Conversely, Alternative E4 would have the most county ditch crossings.



Impacts to Visual Quality and Historic Properties

West Study Section

Other key issues among the Build Alternatives on the west end of the project included visual impacts and impacts to historic resources. Visual impacts would have been most pronounced with Alternative W2 and W3 as a substantial bluff cut and woodland clearing would have been required where US 14 would climb the bluff and transition into an interchange area. This would have involved a cut of 65 feet, fill of 30 feet, and a bluff top cut width of 533 feet where MN 15 climbs the bluff and a cut of 50 feet, fill of 20 feet, and a bluff top cut width of 442 feet at CR 37. The Preferred Alternative minimizes visual impacts by avoiding the bluff cuts.

Sites and buildings covered by Section 106 of the National Historic Preservation Act are commonly found in Minnesota. The Preferred Alternative will have an adverse effect on five such sites. The effects of the other western alternatives would be similar.

East Study Section

In the East Study Section, the Preferred Alternative will impact two historic properties. One of these would be avoided by Alternatives E3 and E4.

How will the project be managed to minimize or compensate for adverse effects?

Section 3 of the FEIS, *Affected Environment, Environmental Consequences, and Mitigation Measures*, contains discussions of how impacts will be mitigated. Mitigation refers to instances where adverse impacts can be reduced through avoidance of a resource, minimizing the impact to a resource, the replacement of a resource, enhancement of similar resources, or through compensation or special programs. Examples of mitigation measures include but are not limited to:

- Compensation for acquisition of property and for residential or business relocations. Under both Federal and State law and rule, compensation must include the fair market value of any property acquired, reasonable allowances for moving expense, and a variety of other features.
- Mitigation for wetland impacts. Typically, more wetland acreage must be either restored or created than would be lost due to project impacts. The presence of the Swan Lake WMA along the US 14 corridor provides an opportunity to integrate a portion of the wetland mitigation with the mission of the WMA.
- Water runoff retention and treatment to reduce potential impacts on river flows or water quality.
- Documentation of historic properties adversely affected by the project.
- Special design measures, such as roadside plantings, to reduce adverse visual impacts or to enhance the environment of any potentially affected communities, including areas outside the incorporated areas of Courtland and Nicollet.



What regulations apply to this project?

The planning, agency coordination, public involvement, and impact evaluations for this project are being conducted in accordance with the both the National and Minnesota Environmental Policy Acts (NEPA and MEPA), the Clean Water Act, the Clean Air Act, state and federal Executive Orders regarding wetland and floodplain protection and environmental justice, the Fish and Wildlife Coordination Act, the Endangered Species Act, the National Historic Preservation Act, and other federal and state laws, policies, and procedures for environmental impact analyses and preparation of environmental documents. A complete list of the agencies consulted in developing the DEIS and FEIS for the project is provided in Section 4.2.6 *Comments and Coordination*. A list of permits and approvals that will be obtained prior to construction is provided in Section 3.19, *Permits and Related Approvals*.

What's next?

The Preferred Alternative described in this FEIS will likely be constructed as a series of projects with logical end points over the course of many years. Some features of the Preferred Alternative, such as interchanges, may not be built with the initial construction, but are viewed as the ultimate, long term build out. Cost effective interim measures or enhanced designs that have less impact may be substituted for elements of the Preferred Alternative in order to maximize the benefits of the project relative to its costs.

The US 14 Minnesota River Bridge at New Ulm is proposed to be replaced in 2018 with funding provided by the Minnesota Legislature in 2008. The replacement structure will be a four-lane bridge.

No other projects along the corridor currently have funding identified in any specific timeframe.

Knowledge of the proposed location for the Preferred Alternative can serve as a basis for local governments to steer development away from future right of way. Also, with a completed FEIS the project could be accelerated should funding become available.



Table F-S-1 Environmental Impact Summary

Impact Categories	No-Build Alt.	Build Alternatives - West			Build Alternatives - East				Preferred Alt. Total	Remarks
		Pref. Alt. W1	Alt. W2	Alt. W3	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4		
Project Length										
US 14 Length (mi.)	22.6	6.7	7.0	6.9	15.6	15.4	15.4	15.1	22.3	
Relocations, Agricultural Parcel Severances, and Land Acquisition –[Note: Bracketed numbers show impacts for optional MN 99 realignment that has been rejected. Although it was also an option for E1 it is not part of the Preferred Alternative and the impacts are therefore not listed].										
Residential Relocations (no.)	0	9	5	6	4	4 [5]	4 [5]	4	13	Relocations include residences that fall within preliminary right of way limits, those within 85' of the right of way, and those where access may be an issue
Business/Other Relocations (no.)	0	3	3	3	2	0	0	0	5	Same as for residences.
Agricultural Parcel Impacts (no.)	0	12	24	18	27	30 [36]	39[46]	50	39	These estimates do not include parcels already affected by existing US 14. Parcels currently being farmed, but located within municipal boundaries were not included.
Agricultural Severances (no. of parcels split)	0	1	12	15	17	17[22]	24[18]	25	18	
Agricultural Land Acquisition (acres)	0	145	300	260	435	480 [515]	550 [590]	565	580	
Residential Land Acquisition (acres)	0	25	35	25	60	60 [55]	50 [45]	40	85	
Commercial and Quarry Acquisition (acres)	0	16	16	14	2	0 [0]	0 [0]	0	18	

Table F-S-1 Environmental Impact Summary

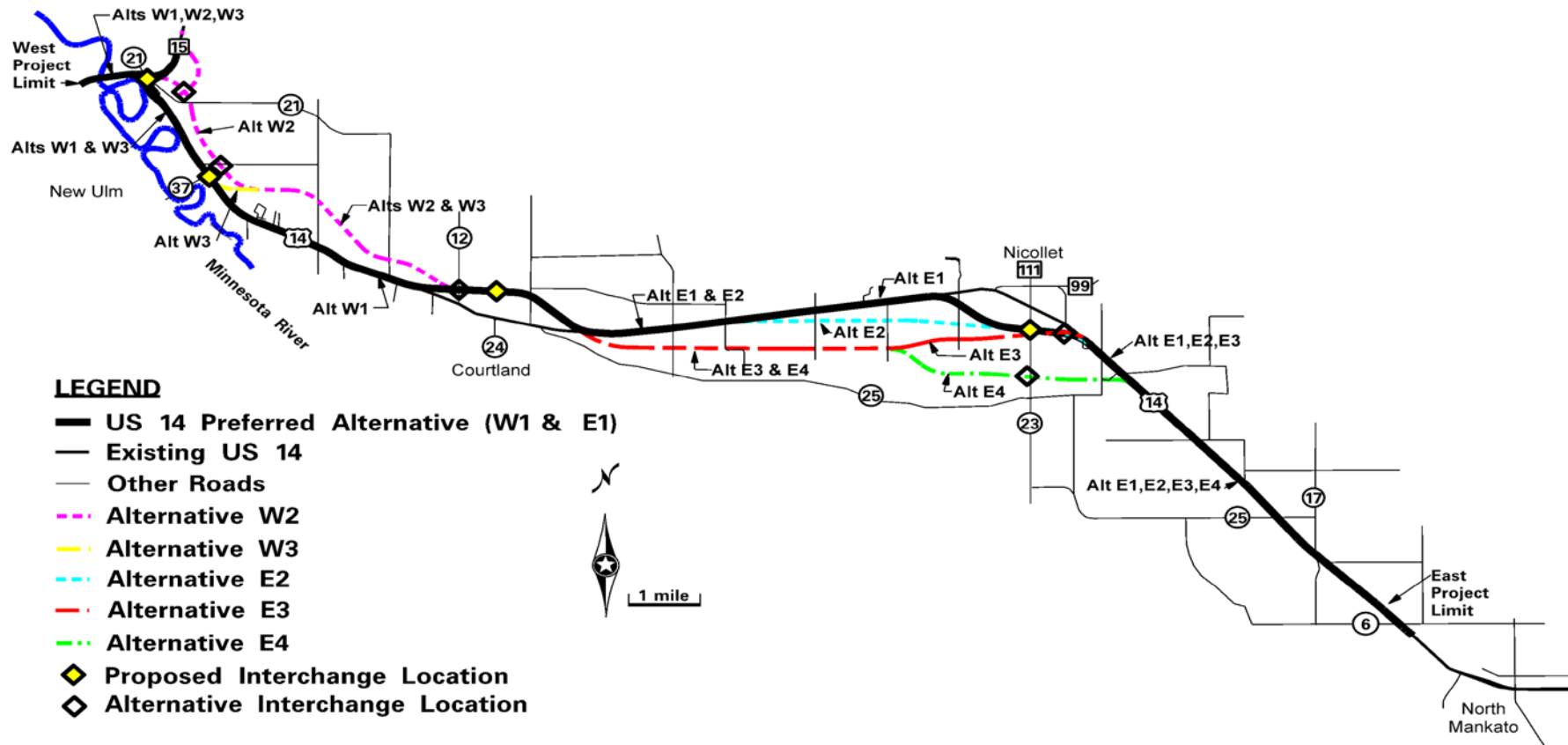
Impact Categories	No-Build Alt.	Build Alternatives - West			Build Alternatives - East				Preferred Alt. Total	Remarks
		Pref. Alt. W1	Alt. W2	Alt. W3	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4		
Minn. Valley LHS Acquisition (acres)	0	13	0	0	0	0	0	0	13	
Total Land Acquisition (acres)	0	199	351	299	497	540 [570]	600 [635]	605	696	
Natural Resources										
Agricultural Wetlands (acres)	0	0.1	0.0	0.0	1.8	5.8 [5.8]	16.2 [13.6]	4.1	1.9	Farmed wetlands determined by aerial photo slide review
Non-Agricultural Wetlands (acres)	0	13.6	4.4	12.2	6.4	7.6 [7.6]	0.5 [0.5]	0.5	20.0	Other, non-farmed wetlands
Total Wetlands (acres)	0	13.7	4.4	12.2	8.2	13.4 [13.4]	16.7 [14.1]	4.6	21.9	Assumes impact to all acres within preliminary right of way. Actual impacts may be less
Prime Farmland (acres)	0	80	195	125	280	300 [280]	360 [350]	415	360	Prime farmland is the highest quality land for farming purposes
Stream Crossings (no. of impacts)	0	6	6	4	3	3	2	2	9	Includes Minnesota River for alternatives W1, W2, and W3 and connections to local roads
County Ditch Crossings (no. of impacts)	0	0	0	0	3	3	3	5	3	County Ditch crossings are mutually exclusive from Stream Modifications.
100-YR Floodplain Impacts (acres)	0	44	25	45	0	0	0	0	44	MN River based on 2009 Brown County Flood Map

Table F-S-1 Environmental Impact Summary

Impact Categories	No-Build Alt.	Build Alternatives - West			Build Alternatives - East				Preferred Alt. Total	Remarks
		Pref. Alt. W1	Alt. W2	Alt. W3	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4		
Federal & State Threatened & Endangered Species (no. of impacts)	0	0	0	0	0	0	0	0	0	Coordination will be undertaken with the DNR to determine if additional reviews for bald eagles and endangered mussels should occur prior to construction
Publicly Owned Lands										
MnDNR Swan Lake Wildlife Management Area Lands (acres)	0	0	0	0	6.2	0	3	0	6.2	The WMA is publicly owned but is not an eligible Section 4(f) resource
Section 4(f) and Section 106 Resources										
Section 4(f) Uses	0	1	0	0	1	1	0	0	2	Heim Farmstead and WSP RR
Section 106 Adverse Effects	0	5	5	4	2	2	1	1	7	Altman Site, New Ulm Spring, Kohn Barn, Heim Farmstead, Kohn Barn, WSP RR, Johnson Barn

West Study Section

East Study Section



US 14 Final EIS
New Ulm to North Mankato

Exhibit F-S-1
Project Area and Alternatives



SECTION 1

Project Background

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SECTION 1

Project Background

This section provides a general introduction to the project and identifies current and anticipated future problems with the existing transportation system (“needs”) that are the basis for proposing the project (“purpose”).

1.1 Introduction

The Minnesota Department of Transportation (MnDOT) initiated this Environmental Impact Statement (EIS) process to study improvements proposed to US Highway 14. The western terminus for the proposed action is Front Street, just west of the US 14 Minnesota River Bridge in New Ulm. The eastern terminus is County Road 6, near North Mankato (see Exhibit F-1-1, Study Area Map). This 22.5-mile long corridor includes portions in the cities of New Ulm in Brown County, as well as Courtland and Nicollet in Nicollet County.

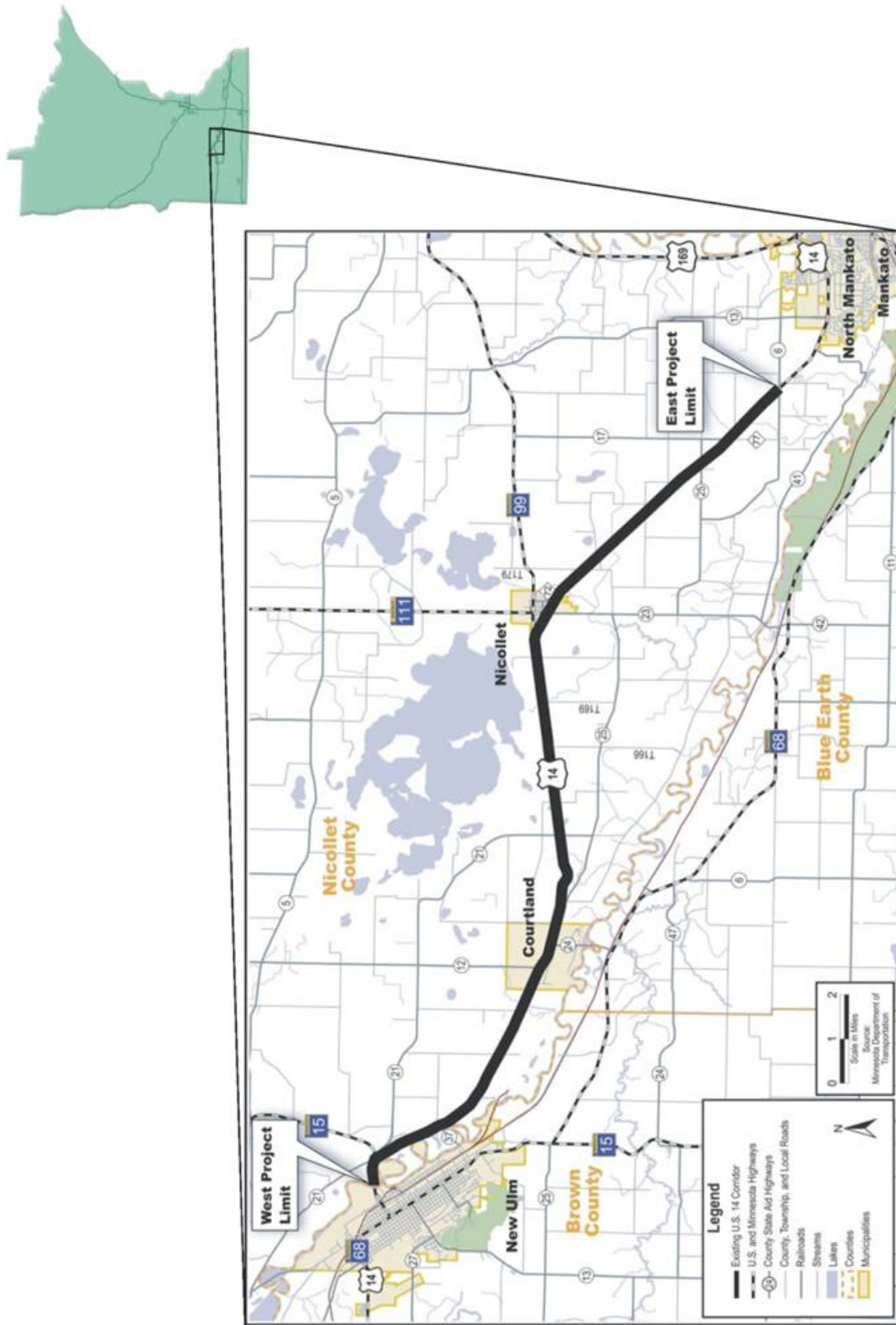
US 14 is a major east-west highway in southern Minnesota. It is part of the Minnesota Trunk Highway system, as well as the U.S. Department of Transportation’s National Highway System (NHS). The US highway extends approximately 1,500 miles, from the entrance to Yellowstone National Park near Cody, Wyoming to Chicago, Illinois. Within Minnesota, US 14 extends from the South Dakota border through New Ulm, Mankato, and Rochester to La Crescent, MN, where it crosses the Mississippi River into Wisconsin.

In 1999, MnDOT identified US 14 from New Ulm to Rochester as a Medium Priority Interregional Corridor (IRC). The IRC designation means that this section of US 14 is among 2,930 miles of highway that connect Minnesota’s largest economic centers. The

portion of US 14 analyzed in the Draft EIS (DEIS, published in 2007) and the present Final EIS (FEIS) is the western-most part of a interregional corridor connecting the regional centers of New Ulm and Mankato and locations eastward. The goal of the Minnesota IRC System is to provide efficient connections between regional trade centers.

The existing 2-lane highway is classified as a principal arterial. The primary role of principal arterials in the transportation system is maintaining traffic mobility, rather than provide local access. It serves daily commuters and commercial or truck traffic and also provides access to homes, farms and businesses. The majority of the land within the study area is rural in nature with crop farming the dominant land use. The western end of the corridor descends into the Minnesota River Valley where it runs between wooded bluffs and river bottom lands.

The portion of US 14 studied in this EIS is the western-most part of a designated interregional travel corridor, connecting the growing regional centers of New Ulm and Mankato and eastward to Rochester.



1.2 Proposed Action and Schedule

1.2.1 Proposed Action and Funding Status

The proposed action evaluated in this FEIS is based on the needs and alternatives considered during corridor planning and scoping phases of the study, with particular reference to the needs stated above. As discussed further in Section 2, this includes upgrading the existing 2-lane highway to a 4-lane divided expressway with interchanges or at-grade intersections at crossroads where necessary, safe, and feasible.¹ The upgraded highway will include existing and new alignment that meets applicable standards for a rural expressway. Access to the highway will be limited to public roads and private access only where no feasible alternative exists.

The proposal to improve this portion of US 14 has also been identified, evaluated, and selected through Minnesota's highway planning process. Planning and constructing needed improvements along US 14 is one of the highest priorities for MnDOT's District 7 (southwest Minnesota, with headquarters in Mankato). The District's emphasis stems from a steady history of increasing traffic and safety problems along 2-lane portions of the highway, along with vigorous support from a variety of stakeholders along the corridor.

The proposed timeframe for the action evaluated in this FEIS is long-term – with the funds needed to start construction not anticipated until 2018 or later. Under Minnesota Laws 2008, Chapter 152 funding was provided for the replacement of the Minnesota River Bridge in 2018 as part of a statewide program to replace structurally deficient and fracture critical bridges. According to the MnDOT District 7 20-year Highway Investment Plan 2009-2028, US 14 between New Ulm and Courtland and between Nicollet CR 17 and North Mankato have been identified as having a performance based need to improve capacity between 2019 and 2028. However, funding has not been identified for the improvements needed. In addition, the remainder of the US 14 corridor between Nicollet CR 17 and Courtland has been identified as a Regional and Community Improvement Priority (RCIP), but not funded. Therefore, the large majority of the project analyzed in this is FEIS is part of \$1.1 billion of District 7 high priority unfunded investment needs over the 20 year timeframe.

MnDOT's current goal is to identify the ultimate highway corridor. The identification of a preferred alternative will serve as a transportation and land use planning tool that will allow communities to appropriately plan for and guide future development, as well as allowing additional time to plan for and mitigate environmental impacts. MnDOT can also work with local partners to preserve right-of-way and secure project funding for construction.

Although the Preferred Alternative provides the ultimate vision for the corridor, the project will likely be constructed as a series of smaller projects. Also, if any elements are not warranted at

¹ Early scoping studies (www.dot.state.mn.us/d7/projects/14newulmtonmankato/documents.html) also evaluated whether US 14 could be upgraded to an improved 2-lane highway, but determined that future performance goals could be satisfied only with development of a 4-lane divided expressway. The posted speed limit along the proposed roadway should be 65 mph; certain portions may also be designed and posted at lower speeds because of curves, intersections, or other access points. See also Section 2 for more information on project alternatives and how they were developed.

the time of construction (e.g. interchanges), cost effective interim designs will be used. Finally, enhanced intersection designs that improve the benefits relative to the costs may be utilized long term.

1.2.2 Schedule for Environmental Review

Table F-1-1 below summarizes the anticipated schedule for environmental review of this project prior to letting for construction.

TABLE F-1-1
Schedule for US 14 Environmental Review

Completion Date	Task
June 2003	Issued Federal Notice of Intent for Draft EIS
May 2005	Held Section 404 Permit, Pre-application consultation meeting with the Army Corps of Engineers
Summer 2005	Issue State EIS Preparation Notice
Winter 2007-2008	Complete and distribute the Draft EIS for agency/public comment; start of Draft EIS comment period; hold the Public Hearing
Spring 2008	Draft EIS comment period ended
2009	MnDOT and FHWA identified the preferred corridor location alternative
2010	Prepare/Distribute Final EIS
2011	FHWA to issue Federal Record of Decision; MnDOT to issue State Adequacy Determination
2018 and beyond	Bridge Construction with remainder of project construction to follow as funds are available

1.3 Project History and Other Projects in the Study Area

This section discusses previously completed studies and recently completed improvements to US 14 both within and outside of the EIS study area.

1.3.1 Previous Studies of the DEIS Study Corridor

The needs along the US 14 corridor between New Ulm and North Mankato (the western-most part of the IRC corridor also evaluated in this EIS) were addressed in detail in 2003 with the publication the following three studies:

- *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Document* – March 2003 – The study verified the need for US 14 improvements, studied the full range of alternatives identified in the *Corridor Management Plan*, and identified which alternatives warranted additional study in future environmental documents.
- *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Decision Document* – May 2003 – this document identified the issues and alternatives that are examined in-depth in this DEIS.
- *14 West Interregional Corridor – North Mankato to New Ulm – Corridor Management Plan (CMP)*– June 2003 – MnDOT and the communities within the study area worked together to identify and document corridor deficiencies, and identify and evaluate a wide range of potential solutions for the corridor.

These and many other documents are available on the US 14 Project Website:

www.dot.state.mn.us/d7/projects/14newulmtonmankato/documents.html.

The key findings presented in these documents are referenced in this FEIS and are not repeated. These studies are incorporated by reference and are thereby part of the administrative record for this project.

1.3.2 Other US 14 Projects in the Study Area

Section 1.4.1.1 identifies a number of long-term US highway 14 improvement projects located east of the EIS study area. The list below describes recent improvements made to sections of the US 14 corridor considered in this FEIS:

- 2000 – completed Nicollet to North Mankato overlay project
- Summer 2003 – MnDOT implemented interim safety improvements to the intersection of US 14 and MN 15, including lengthening and separating the free right lanes for eastbound US 14 motorists to improve visibility. The project also included grading, paving, right turn lane and lighting, as well as relocating some signs and removing trees and vegetation to improve visibility.
- Summer 2004 – MnDOT completed an overlay project for the fourteen miles between MN 15 and the City of Nicollet. Safety improvements to the US 14/CR 37 intersection were also made, including extending the US 14 eastbound acceleration lane for right turning traffic. In Courtland, the project also included milling the existing bituminous before applying the overlay.
- 2004-2005 – this project included reconstruction of US 14 from the area of the New Ulm Airport to 7th North Street. The project included two lanes of traffic in each direction with a concrete median from 7th North Street to just west of Highland Avenue. All streets intersecting with US 14 now have full access to and from the highway except at 19th North Street. Garden Street and CR 29 were realigned to improve visibility and safety.
- 2008 – Installation of centerline rumble strips along the length of the corridor to warn drivers when they inadvertently cross the centerline.

1.4 Need for Project

Improvements to US 14 are needed to address a variety of traffic operational issues that have long been recognized and identified along the highway. These include variations in design through the corridor, safety problems, limited capacity to convey traffic, and highway design deficiencies as summarized in Exhibit F-1-2. Improving the highway will enhance the corridor's interregional trade function and respond to governmental and public support for improvements to US 14.

Safety, capacity, operational, and geometric deficiencies along the US 14 corridor were identified in Chapter 3 – Existing and Forecast Conditions, and Chapter 4 – Identification of Deficiencies of the *14 West Interregional Corridor Management Plan* (CMP, 2003). The sections below summarize and update the key issues, including:

Improvements to US 14 are proposed to address a variety of safety and capacity needs including: access management, capacity issues, crash history, and operational and geometric deficiencies.

System Continuity (see Section 1.4.1)

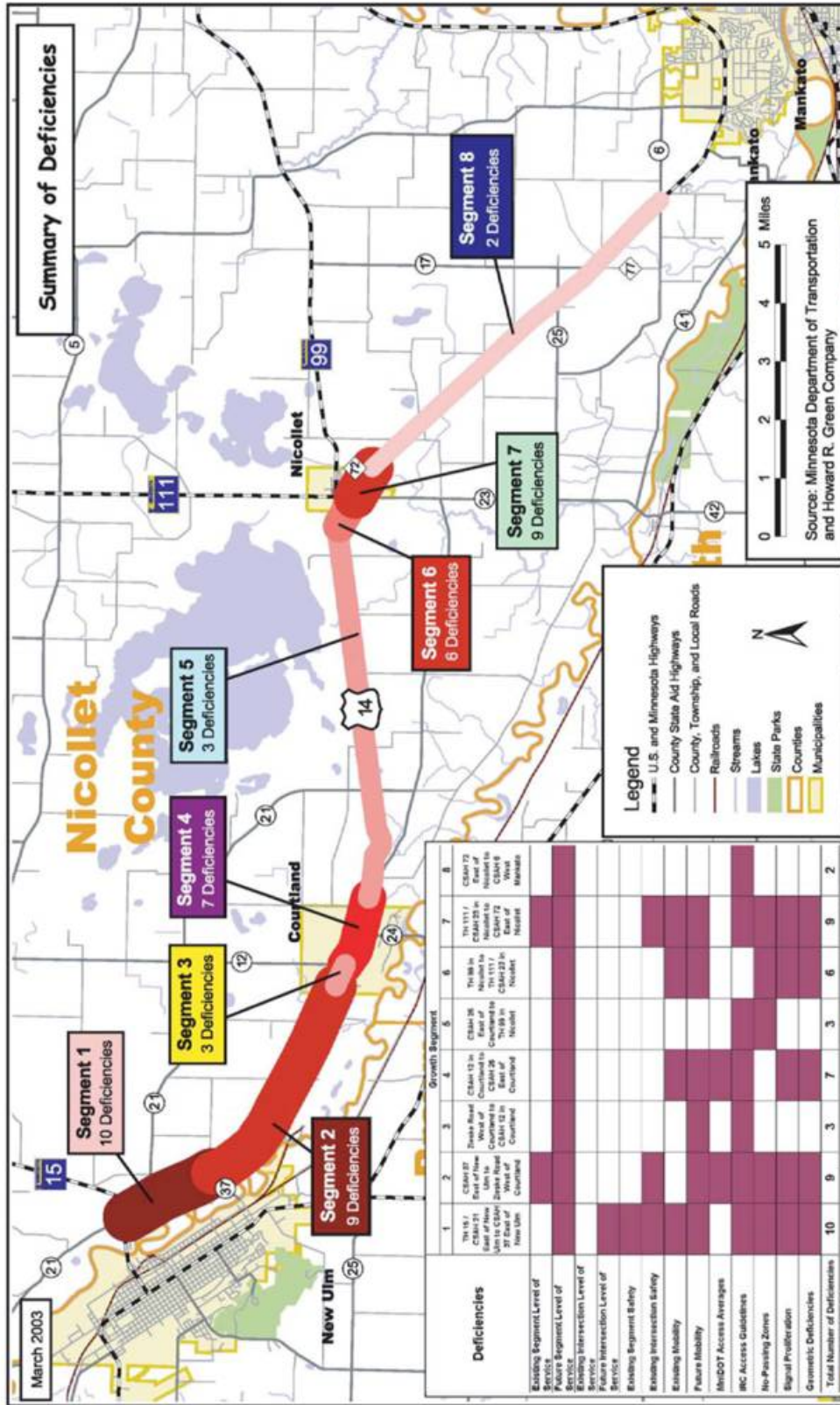
- The New Ulm to North Mankato section is the only remaining two-lane section of the US 14 IRC between New Ulm and Rochester that does not already have a completed FEIS or Environmental Assessment for upgrading to a four-lane highway. Most of the US 14 corridor beyond the study area has already been constructed with four-lanes.
- Within the project area highway design characteristics are inconsistent, ranging from a main street design with numerous accesses in Courtland to standard, rural two-lane design with spot intersection improvements such as turn lanes and acceleration lanes.

Safety Deficiencies and Needs

- Crash rates at the most heavily used intersections exceed statewide averages. The US 14/MN 15/CR 21 intersection is the biggest concern with a history of fatalities and severe injury crashes. The intersections with CR 37, MN 99, and MN 111/CR23 are also crash problem areas.
- Lack of passing zones which results in drivers taking risks to pass in the limited space allowed. These lead to more crashes, including head-on and sideswipe crashes which accounted for 22% of crashes between 2007 and 2009;

Capacity Deficiencies and Needs

- A forecasted increase in traffic congestion for the entire corridor resulting from high traffic volumes, a high percentage of trucks, and the lack of passing opportunities.
- Parts of US 14 now operate below 55 mph, which is MnDOT's Interregional Corridor average speed performance target. This is partially due to speed limits of 35 mph in Courtland and 45 mph in Nicollet. Without improvements, most of the corridor is expected to operate below 55 mph by 2025.
- Increasing traffic, including through-town truck traffic, will have a continuing and increasing adverse impact on the communities of Courtland and Nicollet. Levels of congestion would be expected to increase, as would crashes.



Source: 14 West IRC Scoping Document, March 2003, Figure 2-7
 US 14 Final EIS
 New Ulm to North Mankato
 Exhibit F-1-2
 Summary of Deficiencies from US 14 Scoping Document

Multiple intersections are at high risk for requiring traffic signals, which would further reduce average speed.

- Traffic signals would reduce speeds and mobility and are a safety concern at high speeds.

Highway and Bridge Design Deficiencies and Needs (see Section 1.4.4)

- Limited sight distance at CR 21 and CR 37 gives entering vehicles warning of approaching vehicles;
- Skewed intersections at numerous intersections increase the risk of entering vehicles’ drivers failing to see oncoming traffic;
- Lack of left turn lanes at numerous intersections requires turning vehicles to wait in the through lane, increasing risk of crashes and limiting mainline speeds;
- A large number of accesses per mile which statistically correlates with higher crash rates and reduces average speeds and may be partially responsible for the greater than average crash rates on this corridor;
- The Minnesota River Bridge is two lanes. The bridge is rated as structurally deficient and functionally obsolete and will be more than 50 years old by the time highway improvements are made. Since the highway on both ends of the bridge will be four lanes, not expanding the bridge would create a bottleneck effect as traffic transitions from four lanes on both bridge ends.

The *14 West Interregional Corridor Scoping Document (CMP, 2003)* divided the study corridor into eight corridor segments as shown in Table F-1-2. The rest of this section provides additional details regarding the need for improvements to US 14 between New Ulm and North Mankato based on these segments. Where appropriate, analyses have been updated since the *CMP*.

TABLE F-1-2

US 14 Corridor Segments from New Ulm to North Mankato

Segment	Location	Typical Section	Segment Length (Miles)
A ¹	Front St to MN 15/CR 21	4-lane Urban & 2-lane Rural	0.8
1	MN 15/CR 21 to CR 37	2-Lane Rural	1.8
2	CR 37 to Zieske Road	2-Lane Rural	3.8
3	Zieske Road to CR 12	2-Lane Urbanizing	0.4
4	CR 12 to CR 25	2-Lane Urban	1.2
5	CR 25 to MN 99	2-Lane Rural	6.5
6	MN 99 to MN 111/CR 23	2-Lane Urbanizing	0.6
7	MN 111/CR 23 to CR 72	2-Lane Urban	0.6
8	CR 72 to CR 6	2-Lane Rural	6.8
TOTAL			22.5

¹ The *CMP* did not study the segment of highway between Front Street in New Ulm and the US 14/MN 15 intersection. The addition of this 0.8 mile segment to the DEIS study area results in a 22.5 mile corridor.

Source: *14 West Interregional Corridor – North Mankato to New Ulm – Corridor Management Plan, June 2003, p. 3-4.*



1.4.1 Need for Improved System Continuity

System continuity refers to having consistent road design along the length of a corridor. Consistent road design is important, in that it allows drivers to correctly anticipate how to make necessary maneuvers. For example, if turn lanes are used consistently, drivers know to enter the turn lane to decelerate instead of slowing down substantially in the travel lanes. Design that is consistent throughout the corridor provides safety benefits and increases the capacity of the road by eliminating unanticipated movement requirements for drivers.

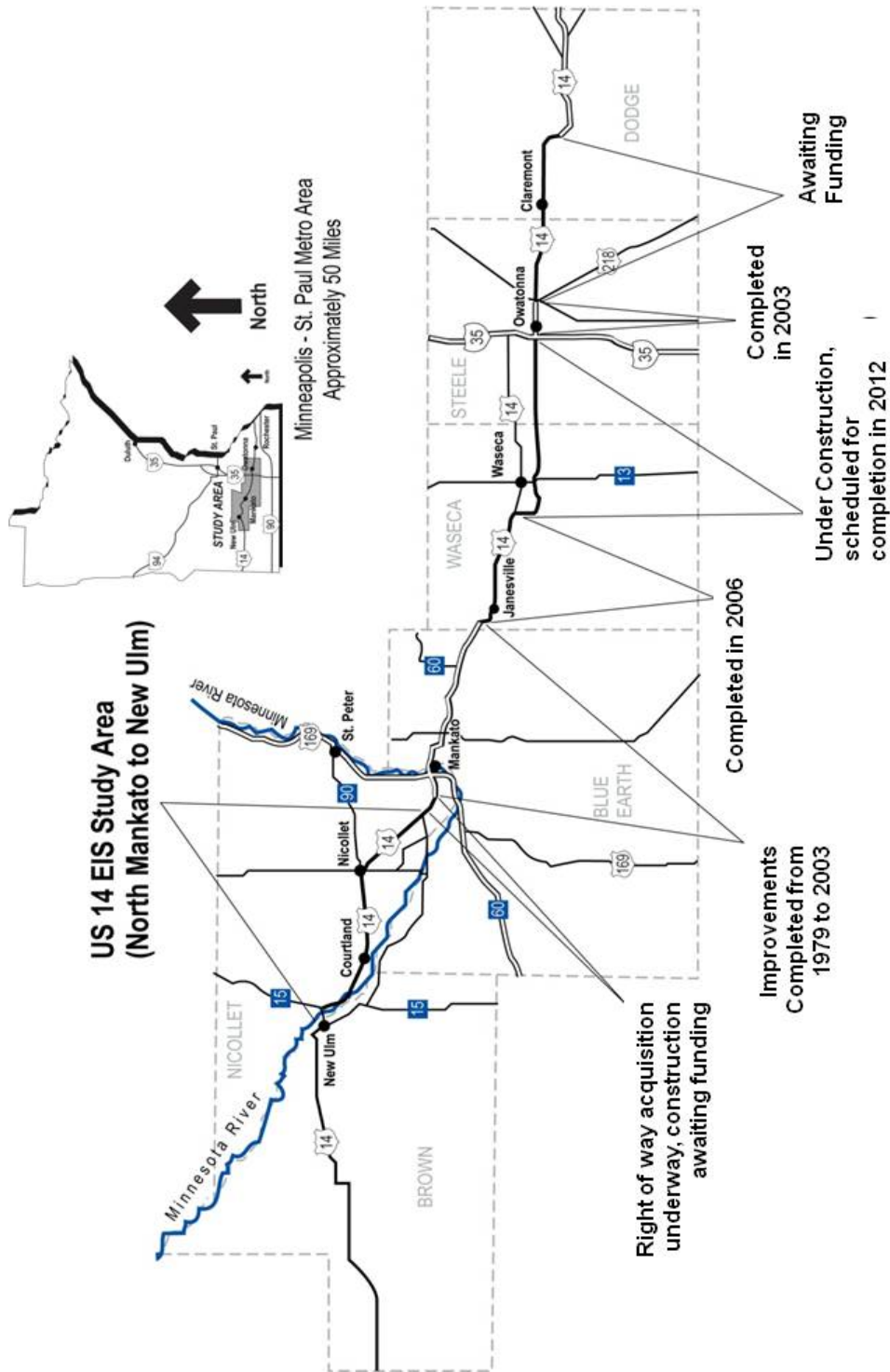
1.4.1.1 System Continuity on the US 14 Interregional Corridor

US 14 from New Ulm to Rochester is part of Minnesota's interregional corridor (IRC) system. The IRC system emphasizes efficient connections between regional trade centers. The goal is to enhance the economic vitality of the state by providing safe, timely, and efficient movement of goods and people.

Since the 1960s, MnDOT has been steadily upgrading US 14 between New Ulm and Rochester to a four-lane highway with interchanges at major intersections. As shown in Exhibit F-1-3, several sections of US 14 between North Mankato and Rochester have been expanded, or have had the planning for expansion completed. These expansion projects include:

- 1960s & 1970s – completed upgrade to four lanes from Kasson to Rochester (13 miles)
- 1979 – completed Mankato bypass upgrade to four lanes (8 miles)
- 1997 – completed upgrade to four lanes from Mankato to Eagle Lake (8.0 miles)
- 1999 – completed the EIS for the corridor between MN 60 to I-35; the Preferred Alternative is a 4-lane expressway with bypasses of Janesville and Waseca and a new connection at Owatonna (32 miles)
- 2001 – completed upgrade to four lanes from Dodge Center to Kasson (9 miles)
- 2003 – completed upgrade to four lanes from MN 60 to Smiths Mill (4.8 miles)
- 2004 – completed an Environmental Assessment (EA) to upgrade to a 4-lane divided expressway from west of CR 6 in Belgrade Township to Lookout Drive in North Mankato and construct of an interchange at CR 41 in Nicollet County;
- 2006 – completed upgrade to four lanes from Janesville to Waseca (9.8 miles)
- 2010 – Completed FEIS for mile four lane freeway between Owatonna and Dodge Center. (19 miles); Construction date dependent on funding availability.
- 2012 – Scheduled completion date for 17.5 mile four lane upgrade between Waseca and I-35 at Owatonna (17.5 miles).

Upon completion of the projects described above, the New Ulm to North Mankato segment would be the only remaining two-lane section on the interregional corridor. Upgrading this segment would complete the development of the US 14 interregional corridor as a four-lane, divided highway with interchanges at select locations.



US 14 Final EIS
 New Ulm to North Mankato

Exhibit F-1-3
 Relation of Proposed Project to
 Other US 14 Expansion Projects

1.4.1.2 Design Consistency within the New Ulm to North Mankato Segment

US 14 between New Ulm and North Mankato has undergone numerous localized projects to improve safety and enhance mobility along the corridor. While these improvements have addressed the local issues, the result has been a corridor that does not have a consistent design that allows drivers to anticipate what comes next.

Most of the US 14 corridor between New Ulm and North Mankato is a rural, two lane, undivided roadway with paved shoulders and right turn lanes at public roadway intersections. The following are notable deviations from that typical design:

- Minnesota River bridge has very narrow shoulders
- The US 14/MN 15/CR 21 intersection has left turn lanes on both the US 14 and the MN 15 approach, and free right turns to MN 15 northbound and US 14 eastbound, with a stop sign for US 14 westbound.
- At CR 37 there is a left turn lane from US 14 onto CR 37 and a free right from CR 37 to an acceleration lane on eastbound US 14
- At 571st Avenue there is a westbound bypass lane to allow through traffic to go around vehicles waiting to make a left turn onto 571st; there is a truck climbing lane going eastbound
- At 561st Avenue there are left turn lanes in each direction on US 14
- Within Courtland, parking is allowed along US 14
- At 466th Street there is no westbound right turn lane on US 14
- There is a right turn lane into the hog buying station west of Nicollet
- There is no right turn lane into the wildlife management area
- US 14 becomes divided with a grass median for a short segment at MN 99 to allow for an eastbound left turn lane
- The grass median ends and is replaced by a painted median through Nicollet
- There are left turn lanes in both directions at the intersection with MN 111 and CR 27
- There are left turn lanes through Nicollet that, for a short segment, become a two way center left turn lane
- There are no right turn lanes at the unpaved east-west road crossing just east of Nicollet
- There is a westbound right turn lane at an entrance to a farm just west of CR 25

While these various designs were constructed to address specific needs, the list demonstrates that there is not a consistent design for US 14 through the study area.

1.4.2 Need for Safety Improvements

1.4.2.1 Crashes

Safety on the US 14 corridor was studied in-depth in the *14 West Interregional Corridor*

Management Plan (CMP), including documentation of crash rates, critical crash rates, crash severity, and the distribution of crash types along the entire corridor, and at intersections. The data used were for the years 1996 through 2000. The following discussion is based on that exhaustive analysis, updated with summary crash statistics from the years 2005-2009. The number and severity of crashes has decreased since the 1996-2000 timeframe both along this corridor and statewide. Despite the improvements, crash problems remain and the analysis in the *CMP* regarding the types of crashes remains valid.

Crashes by Corridor Segment

Table F-1-3 documents the crash rates and crash severity rates of the nine corridor segments. The *CMP* analysis identified considerable safety deficiencies along the segment between MN 15 and CR 37. The safety performance of this segment improved following an intersection revision project, dropping from a crash rate of 2.0 to 1.1 crashes per million vehicle miles. Despite the improvement, the crash rate is still substantially higher than the statewide average. Furthermore, the severity rate at on the MN 15 to CR 37 segment and the MN 111 to CR 72 segment exceed statewide average rates.

Table F-1-3

Crash Rates on Corridor Segments: 1996-2000 and 2005-2009

Segment	Years:	Crash Rate ¹				Severity Rate ²			
		US 14		Statewide		US 14		Statewide	
		96-00	05-09	96-00	05-09	96-00	05-09	96-00	05-09
A – Front St to MN 15/CR 21	--	0.6	--	0.9	--	0.8	--	1.3	
1 - MN 15/CR 21 to CR 37	2.0	1.1	1.0	0.7	6.5	1.5	--	1.2	
2 - CR 37 to Zieske Road	1.0	0.6	1.0	0.9	2.5	0.9	--	1.3	
3 - Zieske Road to CR 12	1.6	0.9	1.0	0.9	6.4	1.0	--	1.3	
4 - CR 12 to CR 25	1.0	1.3	3.0	1.8	2.6	1.7	--	2.6	
5 - CR 25 to MN 99	0.6	0.3	1.0	0.7	1.1	0.6	--	1.3	
6 – MN 99 to MN 111/CR 23	0.8	1.7	3.0	1.8	2.8	1.7	--	2.6	
7 - MN 111/CR 23 to CR 72	2.5	2.2	3.0	1.8	7.8	3.4	--	2.6	
8 - CR 72 to CR 6	0.5	0.5	1.0	0.7	1.3	0.9	--	1.2	

Values in **bold** indicate rates that exceed the statewide average for roads of similar design and traffic.

1 Crash Rate by Segment – crashes per million vehicle miles (MVM) of travel.

2 Severity Rate—crash severity rate provides a weighted average that applies a greater weight to fatal and injury crashes.

Sources: *TH 14 North Mankato to New Ulm CMP*, June 2003, p. 3-71 and 3-72; the MnDOT Transportation Information System; and 2008 Crash Data Toolkit.

Crashes at Intersections

Table F-1-4 provides crash statistics for several intersections along the corridor. Six of the intersections have crash rates that exceed the statewide average. Of these, four experience crash rates that are statistically significantly higher than the averages. These are the intersections with

MN15/CR 21, CR 37, MN 99, and MN 111/CR 23. Problems at these intersections are also apparent based on severity rates that exceed the statewide averages for similar intersections.

TABLE F-1-4

Crash Rates at Corridor Intersections: 1996-2000 and 2005-2009

Intersection	Years:	Crash Rate ¹				Severity Rate ²			
		US 14		Statewide		US 14		Statewide	
		96-00	05-09	96-00	05-09	96-00	05-09	96-00	05-09
US 14 & MN 15/CR 21		1.4	1.7	0.4	0.3	5.5	2.6	--	0.5
US 14 & CR 37		0.7	0.7	0.4	0.3	2.2	1.1	--	0.5
US 14 & 571 st Ave. ³		--	0.1	--	0.3	--	0.1	--	0.5
US 14 & CR 12		0.1	0.3	0.4	0.3	0.4	0.3	--	0.5
US 14 & CR 24 ³		--	0.5	0.4	0.3	--	0.6	--	0.4
US 14 & CR 25 (west) ³		--	0.2	0.4	0.3	--	0.3	--	0.5
US 14 & CR 21 ³		--	0.1	0.4	0.3	--	0.2	--	0.5
US 14 & MN 99		0.2	1.2	0.4	0.3	0.5	1.5	--	0.5
US 14 & MN 111/CR 23		1.1	0.9	0.4	0.3	2.2	1.5	--	0.4
US 14 & CR 33 ³		--	0.1	0.4	0.3	--	0.1	--	0.4
US 14 & CR 72 ³		--	0.2	0.4	0.3	--	0.5	--	0.4
US 14 & CR 25 (east)		0.3	0.4	0.4	0.3	0.6	0.7	--	0.5
US 14 & CR 17 ³		--	0.2	0.4	0.3	--	0.2	--	0.5

Values in **bold** indicate rates that exceed the statewide average.

¹ Crash Rate by Intersection – number of crashes per million entering vehicles (MEV) into the intersection.

² Severity Rate – crash severity rate provides a weighted average that applies a greater weight to fatal and injury crashes.

³ These intersections were not studied in the *CMP*, therefore only the 2005-2009 statistics are given.

Sources: *TH 14 North Mankato to New Ulm CMP*, June 2003, Section 3; the MnDOT Transportation Information System; and the 2008 Crash Data Toolkit.

US 14/MN 15/CR 21 Intersection – This intersection has the highest crash rate along the corridor, with 1.7 crashes per million entering vehicles (MEV). The severity rate at this intersection (2.6) is more than five times greater than the average severity rate of 0.5. One key factor that contributes to the frequency and severity of crashes at this intersection is a 90 degree

turn that motorists must make to continue traveling on US 14. Also, vehicles traveling on MN 15 toward New Ulm are coming down a steep grade with a curve. As noted in Section 1.3.2, MnDOT implemented interim safety improvements to this intersection in 2003. The crash and severity rates have decreased and there have been no fatalities at the intersection since that work was completed. The reduced crash rate suggests that the improvements have helped, but the intersection is still the primary area of concern on the corridor. The severity rate is still nearly double the statewide average for similar intersections; additionally, future increased traffic volumes will increase the risk for more crashes. Finally, note that the reduction in severity rate based on the most recent data is primarily due to an absence of fatal crashes which has a strong influence on severity rate.

US 14 at CR 37 Intersection – Despite a minor reconfiguration of this intersection, including an extension of the US 14 eastbound acceleration lane for right turning traffic, during Summer 2004 (see Section 1.3.2), the crash rate continues to be higher than the critical crash rate. The severity rate of 1.1, although much improved, is also higher than the average.

US 14 at MN 99 Intersection – MN 99 intersects in a T with US 14 as it curves to the south of Nicollet. This intersection has seen increasing crash and severity rates since the *CMP* analysis and now exceeds the critical crash rate. The crashes on US 14 indicate conflicts between the through movements and left turning vehicles (mostly sideswipes) while those on MN 99 are all run off the road to the right, likely associated with the curve just prior to the stop at US 14.

US 14/MN 111/CR 23 Intersection – US 14 traffic is the through movement while traffic on MN 111/CR 23 stops at this through stop controlled intersection in Nicollet. Overhead warning flashers were in place until September 2001 when they were replaced with warning flashers mounted on the stop signs. The crash rate continues to be higher than the critical rate and the severity rate, although somewhat improved since the *CMP* analysis, is still several times higher than the average.

The *CMP* analysis found that more than 90 percent of the crashes at this intersection were right angle crashes which are much higher than the Minnesota average of 28 percent at urban intersections. Analysis of the intersection indicated that a large portion of the crashes occurred on the far side of the intersection when motorists were attempting to cross US 14 from the minor street. The skewed angle of minor street approaches² and the high speeds of thru-travelers appear to be key factors in the higher than expected frequency of angle crashes.

The most effective way to reduce crashes at major intersections is to construct interchanges as a safe means of entry and exit for traffic. The primary safety benefits are derived by eliminating crossing vehicle paths. MnDOT is proposing and planning, ultimately, to add interchanges at appropriate locations. Potential interim designs include two-way stop control intersections at crossroads and or roundabouts. Section 2 includes more information on proposed interchanges. The US 14 Project Website includes the full *Interchange Report* that contains information on the

² The MnDOT Road Design Manual recommends that the alignment of intersecting highways should be as close to 90 degrees as possible. Recent studies show that skewed intersections increased the potential for crashes (an 18% increase in crash rate for a 30 degree skew angle) and impaired driver views (NCHRP 500, Strategy 17.1 B 16 - Realign Intersection Approaches). The AASHTO, Policy on Geometric Design of Highways and Streets (2004) recommends a maximum skew of 30 degrees, noting that the ideal is no skew at all. The skew at this intersection is 29 degrees.

US 14 Interchange Workshop MnDOT hosted in June 2004, as well as several conceptual interchange designs that were developed during the workshop.

1.4.2.2 No Passing Zones

During the period 1996-2000, three of the five passing-related crashes occurred on sections of the highway striped for passing. The other two occurred where passing is not allowed. Most of these crashes occurred during daylight, in clear and dry conditions. US 14 through Courtland (referred to as Segment 4 in the *CMP*) experienced a substantially higher rate of passing related crashes than Minnesota averages. This is the only corridor segment where parking is allowed along the highway.

One third of the study corridor does not have passing zones (see Table F-1-5). MnDOT's goal is to have no passing zones along less than 10 percent of the state's 2-lane rural route miles. Between New Ulm and Courtland, nearly 60 percent of the roadway is no passing, and between Courtland and Nicollet, nearly 50 percent of the highway is no passing. The entire corridor through Nicollet is a no passing zone. This high percentage of no passing zones will ultimately continue to degrade highway safety performance as increased traffic and different vehicle types combine to create more exposure to crash risks, including head-on crashes, along the corridor.

TABLE F-1-5

Analysis of No Passing Zones along Corridor Segments 1996-2000

Segment	Segment Length (miles)	Length of No Passing (miles)	Percentage No Passing	Number of Head on Crashes	Number of Sideswipe Crashes
1 - MN 15/CR 21 to CR 37	1.8	0.7	36%	0	1
2 - CR 37 to Zieske Road	3.8	2.2	59%	1	2
3 - Zieske Road to CR 12	0.4	0.0	0%	0	1
4 - CR 12 to CR 25	1.2	0.0	0%	0	4
5 - CR 25 to MN 99	6.5	3.1	48%	1	0
6 - MN 99 to MN 111/CR 23	0.6	0.6	100%	0	0
7 - MN 111/CR 23 to CR 72	0.6	0.6	100%	0	0
8 - CR 72 to CR 6	6.8	0.1	2%	3	6
TOTAL	21.7¹	7.3	33%	5	14

¹The *Corridor Management Plan* did not analyze Front Street to MN 15/CR 21

Source: *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Document, March 2003, p.2-2* and *14 West Interregional Corridor – North Mankato to New Ulm – Corridor Management Plan, June 2003, p. 3-76.*

1.4.3 Need for Highway Capacity

1.4.3.1 Traffic Volumes and Level of Service

The *CMP* analyzed traffic patterns on the corridor from 1980 to 2000. Forecasts for the year 2025

were developed based on the identified trends. The discussion in the DEIS utilized the forecasts in the *CMP* extended to 2030. Recent traffic counts are also included in the following discussion to illuminate the trends, but the forecasts are still based on the comprehensive study performed in the *CMP*.

As shown in Table F-1-6, the year 2009 average daily traffic (ADT) volumes on the corridor ranged from 5,300 to 8,700 vehicles per day (vpd). A regression analysis of historic volumes (completed for the *CMP* in 2003) predicted that by 2025, the ADT will range from 9,000 vpd to 13,500 vpd, an increase of between 60 and 80 percent. An additional forecast through 2030 was completed to provide more appropriate 20 year design traffic volumes (see Table F-1-6).

TABLE F-1-6

Actual and Forecasted Traffic Volumes

Segment (length)	Typical Section	2000 ADT	2009 ADT	2025 ADT	2030 ADT	2000 LOS	2025- 2030 LOS
A – Front St to MN 15 (0.8 mile)	2-lane urbanizing & Bridge Deck	7,600	8,700	13,500	14,600	D	E
1 - MN 15/CR 21 to CR 37 (1.8 miles)	2-lane rural	5,500	5,700	9,700	10,500	C	E
2 - CR 37 to Zieske Road (3.8 miles)	2-lane rural	6,800	8,000	12,300	13,300	D	E
3 - Zieske Road to CR 12 (0.4 miles)	2-lane urbanizing	6,800	8,000	12,300	13,300	C	E
4 - CR 12 to CR 25 (1.2 miles)	2-lane urban	6,500	7,300	10,400	11,400	C	E
5 - CR 25 to MN 99 (6.5 miles)	2-lane rural	5,300	7,100	12,600	13,700	C	E
6 – MN 99 to MN 111/CR 23 (0.6 miles)	2-lane urbanizing	4,800	5,300	9,000	9,700	C	E
7 - MN 111/CR 23 to CR 72 (0.6 miles)	2-lane urban	7,100	7,000	12,800	13,900	D	E
8 - CR 72 to CR 6 (6.8 miles)	2-lane rural	7,100	7,500	12,800	19,200	C	E

Sources: *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Document*, March 2003, p.2-10 (the 2030 forecast volumes were developed as part of the DEIS analysis); 2009 MnDOT Traffic Volumes.

The primary measure used by transportation professionals to assess operations is Level of Service (LOS). LOS is typically presented in the form of a letter grade (A through F) – much like an academic report card. LOS A represents conditions with “free-flow” traffic with little or no delays. Conversely, LOS F conditions are represented by extreme congestion with long delays and queuing. The typical maximum capacity of a 2-lane rural road ranges from 10,000 vpd to 12,000 vpd, which corresponds to LOS E or worse. LOS declines along with speeds as traffic volumes increase on 2-lane and multilane facilities. During development of the *Corridor*

Management Plan, the public officials and transportation professionals comprising the Project Advisory Committee determined a LOS C to be the target for this segment of the highway due to its rural nature MnDOT's objective for mobility along interregional corridors. Any location falling below that threshold would be considered for some type of corrective action (including added travel lanes) to return to acceptable operations.

As shown in Table F-1-6, three segments (A, 2 and 7) of US 14 are currently congested relative to expected performance (noting that a lower level of performance through the towns of Courtland and Nicollet is expected versus the rural areas). If no improvements are made by 2025, congestion is forecasted for the entire corridor. In summary, the traffic forecasts show that future volumes will reach a point where a 2-lane highway will no longer provide sufficient capacity, which will also worsen the safety problems discussed earlier.

1.4.3.2 Truck Traffic

Truck traffic (heavy commercial vehicles) refers to a wide assortment of vehicles, including semi-trucks with trailers, large single-unit trucks, smaller single-unit moving/shipping trucks, or other similar vehicle classifications. In 2006, trucks comprised about 12 percent of all traffic on US 14 between New Ulm and Mankato.³ The statewide average percentage of vehicle miles traveled by trucks on Minnesota trunk highways in 2009 was 7.8 percent.⁴ Traditionally, the highest level of truck traffic occurs on interstate highways. Because the US 14 corridor is a 2-lane highway with limited passing opportunities, the presence of a high volume of trucks has a greater impact on traffic operations.

MnDOT has completed a freight planning study for District 7, which includes the EIS study area. Some of the most relevant findings and recommendations include references to:

- Extraordinary growth in the biofuels industry (ethanol and soy-diesel)
- Freight volume increases driven by growth of the agricultural economy (production of corn, soybeans, and hogs have grown steadily since 1970)
- Trends toward larger farm and semi tractor trailer equipment, creating potential weight issues and other transportation challenges in rural areas
- Performance-based planning and management for freight movements in non-metropolitan areas

These factors affecting freight traffic, while difficult to measure precisely, demonstrate a general trend toward more trucks and larger loads. As previously noted, the presence of many trucks on a 2-lane highway will adversely affect overall traffic operations.

1.4.3.3 Signal Proliferation

The probability of needing to install a traffic signal at an intersection is a primary component used to estimate future levels of congestion and travel times. An intersection is considered "at

³ "State of Minnesota 2006 Truck Highway Traffic Volume Map" from MnDOT's Office of Transportation Data and Analysis

⁴ Source: "Vehicle Miles Traveled – Trends in Minnesota: 1992-2009" from MnDOT Office of Transportation and Data Analysis

risk” of requiring a traffic signal if traffic volumes at the intersection exceed the thresholds identified in the *Minnesota Manual on Uniform Traffic Control Devices*. A signal risk evaluation in the *CMP* identified the following intersections as high risk for signal installation:

- US 14/MN 15/CR 21
- US 14/CR 37
- US 14/MN 111/CR 23

IRC guidelines strongly discourage traffic signals on high- and medium-priority corridors due to negative impacts on mobility and safety.

1.4.3.4 Interregional Mobility Goals

MnDOT’s target for mobility on medium priority IRCs, including US 14, is 55 mph and above. Travel speeds were determined through measurements in April 2002. These, along with future projected travel speeds in each segment, are shown on Table F-1-7. In 2002 three of the four deficient segments are located in Courtland and Nicollet, which have posted speed limits of 35 and 50 mph, respectively. The IRC goals were set to address long-distance travel on major Minnesota highways and average performance over those distances – in this case 22.5 miles.

In 2002 the corridor was operating at an average speed of 57 mph. Over time, the average speed will decline – to operate at about 50 mph by 2025, more than 7 mph less than the previously measured average speeds. Review of the analysis (Table F-1-7) shows that the reduced overall speed performance is anticipated as a result of delays in all segments – not just those segments through Courtland and Nicollet (segments 3, 4, 6, and 7). At the same time, we can see the emerging need for community bypasses reflected in these data. Again, the goals being to maintain a high average speed over a relatively long distance and to minimize potential for undue delay all along the corridor. The analysis of future travel speeds for consistency with MnDOT’s IRC guidelines indicates that estimated 2025 peak hour travel speeds are expected to drop below the 55 mph goal, to 50 mph.

TABLE F-1-7

Existing and Future Speed Performance

Segment (length)	2002 Travel Speed (mph)	2002 Performance	2025 Travel Speed (mph)	2025 Performance
1 - MN 15/CR 21 to CR 37 (1.8 miles)	55.0	At	49.1	Below
2 - CR 37 to Zieske Road (3.8 miles)	60.7	At	50.8	Below
3 - Zieske Road to CR 12 (0.4 miles)	56.6	At	31.2	Below
4 - CR 12 to CR 25 (1.2 miles)	41.9 ¹	Below	27.9	Below
5 - CR 25 to MN 99 (6.5 miles)	59.8	At	57.7	At

TABLE F-1-7

Existing and Future Speed Performance

Segment (length)	2002 Travel Speed (mph)	2002 Performance	2025 Travel Speed (mph)	2025 Performance
6 – MN 99 to MN 111/CR 23 (0.6 miles)	53.5	Below	41.0	Below
7 - MN 111/CR 23 to CR 72 (0.6 miles)	53.0	At	27.8	Below
8 - CR 72 to CR 6 (6.8 miles)	58.8	At	55.5	At
Average	57.3	At	50.2	Below

¹In 2009 a 45mph speed zone on the east side of Courtland was added, extending the reduced speed zone by approximately 1,800 feet. This likely has the effect of further reducing the average travel speed.

Source: *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Document, June 2003, p. 2-15.*

1.4.4 Need to Correct Highway and Bridge Design Deficiencies

1.4.4.1 Highway Design in General

Currently, the entire 22.5-mile long segment of US 14 is a 2-lane road with no passing zones comprising a third of its length (Table F-1-5). At current traffic volumes this design increases the risk of head on collisions and sideswipes (often an indication of a near miss for a head on). The 2-lane design lacks the passing opportunities and positive separation between opposing traffic streams. Furthermore, intersection crashes are a problem because there are not adequate left turn lanes and because left turns onto the highway and crossing movements must be done as one movement (instead of half at a time). These risks will increase with projected 2030 traffic volumes.

1.4.4.2 Minnesota River Bridge (MN Bridge ID No. 9200)

Bridge Description and Sufficiency Rating

As noted previously, this FEIS evaluates highway improvements within a long-term context. Funding for replacement of the US 14 Bridge over the Minnesota River is tentatively set for 2018. This bridge over the Minnesota River was built in 1963; it will be more 50 years old by the time it is scheduled for replacement. The bridge is also moderately large and complex. The bridge is 566 feet long with six spans, with each span about 94 feet long. The cast-in-place deck is supported by five 4.5-foot deep prestressed concrete girders. The deck area is 20,107 square feet and includes a 2-lane roadway that is 30

The bridge over the Minnesota River is considered “structurally deficient” (meaning the bridge is wearing out and a candidate for replacement) and “functionally obsolete” (meaning in this case that it has substandard shoulder widths).

feet wide. The shoulder widths are below current standards, making the bridge “functionally obsolete.” At the time the DEIS was circulated the bridge had a sufficiency rating of 69.7 (out of a scale of 100).⁵ A July 2009 inspection resulted in a sufficiency rating of 38.0. That rating compares to general guidance used by MnDOT and most transportation agencies, which says that a sufficiency rating below 50 indicates the bridge is “structurally deficient” and a candidate for rehabilitation or replacement. Neither the DEIS nor this FEIS includes detailed engineering analysis of the need to rehabilitate or reconstruct the bridge. These engineering studies will take place following the completion of the environmental review process.

Highway Capacity and Connectivity at the Bridge

Because the existing bridge provides for only two lanes of traffic, it is also appropriate to review it from the standpoint of capacity. As shown in Table F-1-6 above, future traffic volumes at the Minnesota River bridge are projected to reach 13,500 by 2025, and 14,600 by 2030, when the need for an improved US 14 will be fully felt. This is the highest forecasted traffic volume anywhere along the corridor, as should be expected from the combined traffic demands of both US 14 and MN 15. The city’s street design on the west end of the bridge in New Ulm is also four lanes, adding to the potential capacity problem at the bridge.

The existing bridge provides for only two lanes of traffic, and thus it is expected that the bridge will begin to create a “bottleneck effect” as traffic transitions from the four lane sections on each end of the bridge.

1.4.4.3 Access Control

Access is typically one of the key factors contributing to high crash rates. The higher the number of accesses per mile, the more exposure there is to conflicts and the more likely crashes will increase. As traffic increases, crash risk at access points also increases due to the lack of gaps for motorists to enter the highway, particularly for left turns. As seen in Table F-1-8, most of the segments of the US 14 corridor have higher access density than the recommended maximum for a medium priority interregional corridor.

Some of the areas classified as urban along the corridor have considerably higher access densities. The highest access density through the business district in Courtland contains 58 access points in one mile.

According to the MnDOT Traffic Safety Fundamentals Handbook, the statewide average is eight accesses per mile in rural areas and 28 accesses per mile in urban areas. IRC guidelines recommend access density ranging between one access per

mile to 14 accesses per mile depending on whether the area is rural or urban (more access points are acceptable in urban areas, where operating speeds are lower and use of auxiliary

An Origin-Destination Study completed in 2003 showed that a bypass of New Ulm, which would include a new Minnesota River crossing location, would not divert enough traffic from existing US 14 through the city to make construction of a New Ulm bypass economically feasible. Approximately 85 percent of US 14 trips had origins or destinations in New Ulm.

⁵ The sufficiency rating of a bridge is determined through regular bridge inspections. The rating is a numeric value with a maximum of 100. The sufficiency rating takes into consideration a number of factors, including structural adequacy, functional capacity, and essentiality for public use, load carrying capacity, the average daily traffic (p. 12, *MnDOT Bridge Inspection Manual Version 1.3 - December, 2006*).

turning lanes is more prevalent).

TABLE F-1-8

Summary of Access Inventory by Segment

Segment (length)	Segment Type	# of Access Points	Average Access Density Accesses/Mile	Recommended Maximum Access Density
1 - MN 15/CR 21 to CR 37 (1.8 miles)	Rural Area	11	6	2
2 - CR 37 to Zieske Road (3.8 miles)	Rural Area	36	10	2
3 - Zieske Road to CR 12 (0.4 miles)	Urbanizing Growth Area	3	7	4
4 - CR 12 to CR 25 (1.2 miles)	Urban Growth Area	70	58	14
5 - CR 25 to MN 99 (6.5 miles)	Rural Area	40	6	2
6 - MN 99 to MN 111/CR 23 (0.6 miles)	Urbanizing Growth Area	1	2	4
7 - MN 111/CR 23 to CR 72 (0.6 miles)	Urban Growth Area	11	19	14
8 - CR 72 to CR 6 (6.8 miles)	Rural Area	49	7	2

Source: *14 West Interregional Corridor – North Mankato to New Ulm – Scoping Document, March 2003, p.2-2. MnDOT Access Management Manual, Chapter 3, p. 4.*

1.4.4.4 Road Design

All aspects of a road’s design including curves and grades (known as horizontal and vertical geometry), lane and shoulders widths, and intersection configuration influence a driver’s ability to spot hazards and react to them. Sight distance is the length along the road that a driver can see. A roadway design with long sight distances allows drivers more time to react and thereby avoid potential collisions. Properly designed geometry allows traffic to flow at a more constant speed and reduces the potential for driver error. US 14 includes skewed angle intersections, sight distance deficiencies, and a sharp horizontal curve. Table F-1-9 documents specific existing geometric deficiencies on US 14.

- Skewed Intersections – The basic alignment of the US 14 corridor typically runs at an oblique angle relative to intersecting north-south and east-west roadways. This results in multiple intersections with skewed minor street approaches. Such intersections are notably less safe, as drivers must look back over their shoulder to see approaching traffic. Safety deficiencies at the US 14/MN 111/CR 23 intersection appear to be related to this type of skew angle.
- Sight Distance – Sight distance is the length of roadway visible to a driver. As noted in Table F-1-9, several intersections along the corridor have poor sight distances.

- *Horizontal Curves* – At the US 14/MN 15 intersection, the curve radius on the east leg of MN 15 does not meet the 60-mph design speed.

TABLE F-1-9

Existing Geometric Deficiencies

Deficiency	Location	Description
Horizontal Curvature	East leg of US 14 to MN 15	Curve radius does not meet 60 mph design speed, meets 55 mph posted speed limit
Vertical Grades	East of New Ulm; Minnesota River Valley	Above 3% maximum for Flat Classification; in range for Rolling Classification
Poor Sight Distance	CR 21	Enters US 14 on inside of curve
Poor Sight Distance	CR 37	Horizontal and vertical curves to the west restrict sight distance to approximately 10 seconds – which is about the minimum considered safe (NOTE: this was partially addressed by recent minor construction)
Poor Sight Distance/ High Intersection Skew Angle	446 th St, 561 st Ave, 551 st Ave, Zieske Rd, CR 12, CR 24, MN 99, MN 11 Pine St, Elm St, CR 72, TC-217, 451 st Ave, 478 th St, 490 th St, CR 25, CR 17, CR 6, also other minor roads and driveways	Skew angle approaching or above upper limit, creates poor driver sight line
Lack of Left Turn Lanes	446 th St, 551 st Ave, 547 th Ln, Zieske Rd, CR 12, downtown Courtland, Fiemeyer Dr, 531 st Ave, CR 25, CR 21, 466 th St, 491 st Ave, 481 st Ave, 471 st Ln, 451 st Ave, CR 72, TC 217, 478 th St, 490 th St, CR 25, CR 17, also other minor roads and driveways	Oncoming traffic causes left-turning vehicles to stop unsheltered from other vehicles, creating congestion and higher potential for crashes

Source: *14 West Interregional Corridor – North Mankato to New Ulm – Corridor Management Plan, June 2003, p.4-19; completed by Howard R. Green Company using MnDOT Design Guidelines.*

1.4.4.5 Supporting Roadways

The ability of US 14 to meet speed, mobility, access, and safety objectives established by MnDOT is dependent to some extent on the existence of the local and supporting road system. The local and supporting road system along US 14, which includes frontage roads, parallel minor arterial/collector roads, and other roads that intersect US 14 are discussed below.

Frontage Roads

The access density problem in Courtland, caused by a high concentration of direct private and public access, indicates the lack of an effective frontage road system to serve the direct access function in place of US 14. Currently, there are only two frontage roads within the study area. One frontage road in Courtland begins at the eastern city limit on the north side of US 14 and extends approximately 1,000 feet into Courtland. The other frontage road is the Hewitt Service

Road in the south part of Nicollet. Other parallel roadways, such as 6th Street in Nicollet, serve a similar function to frontage roads by providing east-west circulation near US 14; however, there are few such roads along the corridor.

Parallel Minor Arterial/Collector Roads

Adequate north-south and east-west minor arterials and collectors spaced at roughly regular intervals generally exist to support US 14. MN 68 is a minor arterial that parallels the entire length of US 14 within the study area. Several miles to the north CR 5, a major collector, also roughly parallels the highway. CR 21, CR 11, and CR 25 also parallel some portions of US 14.

North-South Roads that Intersect US 14

Direct access across US 14 is provided in Courtland by 1st Street, 2nd Street, 3rd Street and 4th Street. In Nicollet, MN 111/CR 23 (Main Street) and Elm Street provide direct access for vehicles crossing the highway. Outside Courtland and Nicollet, CR 17, CR 77 and some township roads provide access across the highway. The *CMP* noted another north-south roadway deficiency within Courtland – motorists traveling north and south within Courtland must complete part of their trip on US 14 because CR 12 (north of Courtland) does not directly tie into CR 24 (south of Courtland).

Currently MN 15 enters New Ulm on the southeast end of the city and runs through town to the intersection with US 14. It runs concurrent with US 14 across the Minnesota River until US 14 turns to the southeast. There have been requests to designate CR 37 as MN 15 so that vehicles that do not have a destination in New Ulm will cross the river on the county road. Trucks, in particular, may find this route preferable because it avoids urban traffic. Likely this route is being used already by frequent travelers of MN 15. Some who commented on the DEIS requested that MnDOT include plans for re-designating MN 15 in the FEIS. The issues raised by that re-designation (existing at-grade railroad crossing and river crossing) are not directly relevant to the decisions on the US 14 alignment and are outside the scope of this EIS.

1.5 Project Purpose

MnDOT's long-term objective for US 14 is to provide a safe and reliable highway transportation facility. This goal is consistent with MnDOT's 2009 Statewide Transportation Policy Plan⁶

- ***Vision—Providing a Safe, Efficient and Sustainable Transportation System.***
- ***Selected Components of the Vision—Upgraded highways and expanded transit service connecting regional trade centers throughout the state; safe travel throughout the state, with a goal toward zero deaths; to improve access and enhance the movement of people and freight...***

The purpose of the improvements proposed for US 14 from New Ulm to North Mankato is to meet specific performance objectives for a Minnesota IRC, while seeking compatibility with local communities and the area's natural resources. The proposed project will:

- Provide for system continuity on the IRC by extending the four-lane, divided highway

⁶ See: <http://www.dot.state.mn.us/planning/stateplan/index.html>

design west from North Mankato to New Ulm;

- Address current safety issues and reduce the potential for safety problems;
- Provide for an average travel speed of at least 55 mph and maintain a Level of Service C or better under traffic conditions forecasted for 2030.
- Enhance US 14's function as an interregional trade corridor. This will be accomplished by maintaining or improving travel conditions to meet performance targets;
- Fit the context of the area's communities, resources, land uses, and transportation needs. The proposed action will be sensitive to the context of the Cities of New Ulm, Courtland, and Nicollet, area farms, neighborhoods, businesses, topography/bluffs, and other social and natural resources.

The DEIS and FEIS were prepared to identify highway improvements necessary to meet these project goals and to describe the impacts potentially resulting from those improvements. This process includes study, extensive coordination with agencies, and a public and agency review and comment period. It is an on-going process that builds on planning and environmental review documents that have been completed to-date. The ultimate goal of the process is identify a Preferred Alternative which is carried through to construction. This FEIS describes that Preferred Alternative, explaining the rationale for selecting it, specifying the location of the improvements, and identifying anticipated impacts.



SECTION 2

Alternatives

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Alternatives

2.1 Introduction

Developing the Draft and Final EIS required studies of a number of alternatives as defined in the National Environmental Policy Act (NEPA) and the Minnesota Environmental Policy Act (MEPA). Several reasonable alternatives were carried into the DEIS study phase. This section describes the alternatives which were studied in detail during the EIS process. Section 2.3 identifies the Preferred Alternative as well as the basis for its selection. This section does not revisit alternatives that were studied in earlier stages of project development, which were not carried into the DEIS.

2.2 EIS Alternatives

This section briefly reviews the alternatives that have been subjected to detailed environmental analysis in the EIS process. Improvements studied in detail consisted of a variety of expanded 4-lane alignment or highway location alternatives, bypasses of Courtland and Nicollet, and several possible intersection configurations including interchanges. Exhibit F-2-1 and Exhibits F-E-1 through F-E-4 in Appendix E show the corridor location alternatives.

For better reader understanding, the US 14 corridor was divided into two sections for the purpose of describing the alternatives (see Exhibit F-2-1):

- The *West Study Section* extends from Front Street in New Ulm to CR 12 in Courtland.
- The *East Study Section* extends from CR 12 in Courtland to CR 6 near North Mankato.

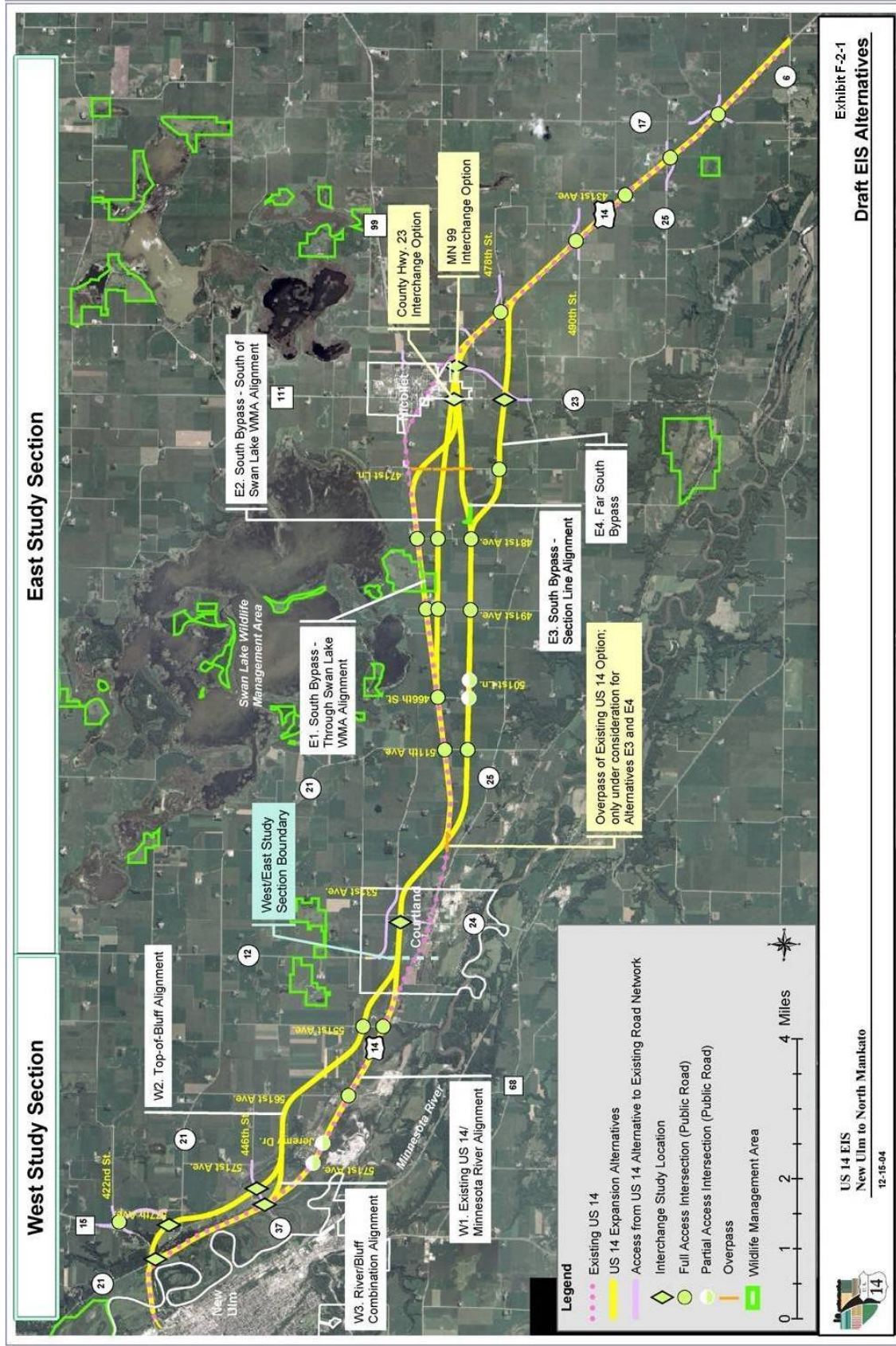
Alternatives studied in the DEIS were the result of an extensive process used to develop and screen a wide range of options. During that process several alternatives were eliminated from further consideration. Reasons for their elimination can be found in other documents, including the *14 West Interregional Corridor Management Plan*, the *Scoping Decision Document (SDD)*, the *Alternatives Screening Recommendations for the US 14 EIS Technical Memorandum*, and the *Amended Scoping Decision Document*, all of which are available on the Project Website.

Exhibit F-2-1 and Exhibits F-E-1 through F-E-4 in Appendix E show the corridor location alternatives.

During scoping, alternatives were removed from further consideration if they clearly did not address the identified deficiencies, were found to be inconsistent with local land use plans, or had unacceptable environmental impacts.

During summer 2004, the alternatives were once again reviewed as the post-scoping studies were initiated. This review process evaluated the same corridor alternatives recommended for additional study in the May 2003 *SDD*. MnDOT evaluated each alternative's reasonableness or responsiveness to the project purpose and need, as well as the potential of each alternative to





address existing and forecasted US 14 deficiencies. This assessment included engineering evaluation, agency coordination, consideration of overall social, economic, and environmental impacts, and input received from the public during the summer and fall of 2004.

This effort led MnDOT to recommend more precise corridor locations, some new corridors, and the elimination of other corridors. MnDOT determined that it was necessary to issue an *Amended Scoping Decision Document* to formally update the May 2003 *SDD*, and to refine the alternatives to be addressed in detail within the DEIS. The *Amended SDD*, published in October 2005, provided the justification for eliminating or refining certain alternatives; and for adding the Minnesota River crossing to the project limits

2.2.1 No Build Alternative

The No Build Alternative serves as a baseline for comparison to the Build Alternatives. Improvements under this alternative are limited to normal pavement maintenance, spot traffic operational improvements, and minor safety improvements. The No Build Alternative retains the existing roadway's current physical characteristics, horizontal and vertical alignment, and cross section (e.g., pavement width, shoulder width, and clear area beyond the shoulder).

2.2.2 Build Alternatives

Alternatives evaluated in the EIS consist of corridor locations, or alignments, that were refined through an extensive study process. Generally, a 4-lane divided highway is safer than a 2-lane highway because the additional lanes allow passing opportunities and the medians separate opposing traffic flows which nearly eliminates the potential for head-on collisions. Therefore, all Build Alternatives were designed as 4-lane, divided facilities with a 70-mph design speed (except near the intersection of US 14/MN 15). High volume road intersections were proposed to be replaced with enhanced intersections (including the potential for interchanges - see Section 2.4.3.1) and several existing access points were to be closed, consolidated, or realigned to existing public roads.

All Build Alternatives included the potential for various interchange designs. The *Interchange Workshop Report*, available on the project website, includes additional information regarding interchange concepts examined during the EIS process. Interchange designs were further developed following the identification of the Preferred Alternative. These designs are concepts that will undergo further development. Also, when the project is constructed alternative intersection designs will be used if interchanges are not yet warranted.

2.2.2.1 West Study Section Location Alternatives

The three Build Alternatives included in the West Study Section extended from Front Street in New Ulm to CR 12 in Courtland (see Exhibit F-2-1). All alternatives included widening the US 14 Minnesota River Bridge in New Ulm from two to four lanes at the current location. Interchanges are considered at MN 15/CR 21 and CR 37.

Initial intersection design concepts included interchanges with connections to CR 21 (at the MN 15 interchange) and 446th Street (at the CR 37 intersection). However, if a safe, functional, cost effective design cannot be confirmed during final design (due to the topography at the intersection locations), it may become necessary to realign CR 21 or not reconnect 446th Street.

Minnesota River Bridge (MN Bridge ID No. 9200)



The limits of the environmental review for this project were extended following publication of the *Scoping Decision Document* to include the US 14 Minnesota River Bridge at New Ulm. The *Amended Scoping Decision Document* formalized the decision to identify the impacts of replacing the existing bridge with a four-lane structure. The specific design of the bridge expansion is not addressed in detail within the DEIS nor here in the FEIS. The DEIS assumed construction of a new two-lane bridge adjacent to the existing structure, and subsequent major rehabilitation of the existing two-lane bridge to provide the four-lane crossing. However, given the structural status of the existing bridge (see Section 1.4), the plan is now to replace it with a new four lane crossing.

The new bridge will be built on the existing alignment and there is no need to consider a new location for the river crossing. That conclusion is based on the results of a vehicle origin-destination (O-D) study completed for the 2003 *CMP*. The O-D study revealed that approximately 85 percent of all the vehicles entering and exiting New Ulm on US 14 either started or stopped their trips in New Ulm. This finding shows that a bypass of New Ulm, which would include a new river crossing location, would not divert enough traffic from existing US 14 through the city to make construction of a New Ulm bypass economically feasible.

Alternative W1. Existing US 14/Minnesota River Alignment

Alternative W1 has been selected as the Preferred Alternative in the west project section. The Preferred Alternative is described in detail in Section 2.3.1 and the rationale for selecting Alternative W1 as the Preferred

Alternative is given in Section 2.3.2.

The Preferred Alternative expands US 14 on the existing alignment from Front Street in New Ulm to just west of CR 12 in Courtland. There the Preferred Alternative diverges from the existing alignment and moves north to bypass Courtland.

The three Build Alternatives in the West Study Section extended from Front Street in New Ulm to CR 12 in Courtland. All of the alternatives included the expansion of the Minnesota River Bridge on the west end. Alternative W1 has been selected as the Preferred Alternative

A constrained highway design will be used between Front Street and CR 37 to reduce impacts to the Minnesota River floodplain and the bluff (see Exhibit F-2-8). A rural highway design will be used for the remainder of the Preferred Alternative from CR 37 to CR 12 (see Exhibit F-2-7).

The Preferred Alternative includes a number of design modifications to DEIS Alternative W1. The effects of these modifications are noted throughout this FEIS. Notable modifications are changes to the US 14/MN15/CR21 and US 14/CR 37 interchange concepts and development of a reduced conflict intersection at the access to the Minnesota Valley Lutheran High School. The Preferred Alternative also incorporates additional minor design changes to DEIS Alternative W1 to minimize environmental impacts.

Alternative W2. Top-of-Bluff Alignment

Alternative W2 would have expanded the existing US 14 alignment from Front Street in New Ulm to the MN 15/CR 21 intersection. Beyond this intersection, Alternative W2 left the existing alignment and moved north to the top of the bluff, where it would have stayed through the end of the West Study Section at CR 12. The 4-lane constrained design would have been used from Front Street to the proposed intersection with MN 15 at the top of the bluff. New alignment east



of MN 15 on top-of-bluff alignment would have used a rural highway design. The design included a 5% slope to climb the bluff and a 500 foot long bridge crossing at Heyman's Creek.

Alternative W3. River/Bluff Combination Alignment

Alternative W3 was a combination of Alternatives W1 and W2. It was developed to utilize the existing highway between Front Street and CR 37, then climb the bluff and follow the W2 route to avoid concerns posed by the Minnesota Valley Lutheran High School, impacts to rural residential developments, trucks accessing the quarries, and impacts to historic properties. This alternative would have expanded US 14 on existing alignment from Front Street in New Ulm to CR 37. A constrained highway design would have been used for the section between the US 14 Minnesota River Bridge and CR 37 and a rural highway design would have been used for the remainder of the alternative from CR 37 to CR 12. This alternative would also require a 4.3% slope to climb the bluff and a 500 foot long bridge crossing at Heyman's Creek.

2.2.2.2 East Study Section Location Alternatives

The East Study Section extends from CR 12 in Courtland to CR 6 just west of North Mankato (see Exhibit F-2-1). The four Build Alternatives in the East Study Section shared common portions on both the west and east ends. The common portion in the west is the northern bypass of Courtland, which begins at CR 12 and ends where it converges with existing US 14, approximately ¾ mile east of 531st Avenue. The common portion on the east extends along the existing US 14 alignment from just east of Nicollet to CR 6, the eastern project limit. This common section uses two lanes of US 14 for the eastbound traffic and two lanes built to the north for westbound traffic. All Build Alternatives would have used the 4-lane rural highway design.

The East Study Section extends from CR 12 in Courtland to CR 6 just west of North Mankato. The DEIS examined four corridor alignment alternatives. The Preferred Alternative utilizes the existing alignment the most.

All four Build Alternatives included consideration of provided access to Courtland by way of an extension of CR 24 to the bypass located approximately ½ mile north of existing US 14. This access, with the footprint of a possible interchange as the basis for the impact assessment, would have the potential to provide local access to CR 12, 466th Street, and 531st Avenue in Courtland. Since publication of the DEIS another access location has come under consideration at CR 12. Both locations are evaluated in this FEIS; however, the Preferred Alternative includes the access at CR 24.

Alternatives E1, E2, and E3 included the option for one of two locations for access to Nicollet. One location is on existing CR 23, approximately ½ mile south of US 14 in Nicollet. The other location is approximately ½ mile east of existing CR 23, directly east of the first option. The second access location included the potential for a new local road to connect a re-routed CR 23 to a re-routed MN 99. The latter alternative has been eliminated from consideration because it provides improved service for MN 99, but degrades service for MN 111 which has larger traffic volumes. Alternative E4 had one access option located on CR 23 about 1.25 miles south of existing US 14. Again, the footprint of an interchange was used for analyzing environmental impacts.

Alternative E1. Near South Bypass Alignment



Alternative E1 has been selected as the Preferred Alternative. The Preferred Alternative is described in detail in Section 2.3.1 and the rationale for selecting Alternative E1 as the Preferred Alternative is given in Section 2.3.2. It begins at CR 12 on the Courtland bypass. Approximately ¾ mile east of 531st Avenue, the alignment will tie into the existing US 14 and remain on existing alignment to just west of 471st Lane. Just west of 471st Lane, the alignment turns southeast of the existing highway to bypass Nicollet with access to the city at CR 23. The alignment then returns to existing US 14 alignment just east of CR 72, and remains on existing alignment through the end of the study area at CR 6. Generally, the portions of Preferred Alternative E1 that use existing US 14 alignment will use the two existing lanes of US 14 for eastbound traffic; westbound traffic will use two new lanes north of the existing roadway. Within the Swan Lake WMA, the new alignment stays within MnDOT's existing right-of-way as much as possible, while maintaining the four-lane rural highway design.

Alternative E2. South Bypass – South of Swan Lake WMA Alignment

Alternative E2 would have used the Courtland bypass from CR 12 to approximately ¾ mile east of 531st Avenue. At 531st Avenue, the alignment would have reconnected to US 14 and remained on existing alignment to 466th Street. Just past 466th Street, the alignment left the existing highway, skirted the southern boundary of the Swan Lake WMA, and remained south of existing US 14 to bypass Nicollet. The alignment then returned to existing US 14 just east of CR 72, and remained on existing alignment through the end of the study area at CR 6.

Alternative E3. South Bypass – Section Line Alignment

Alternative E3 would have utilized the Courtland bypass from CR 12 to approximately ¾ mile east of 531st Avenue where the alignment crossed existing US 14. The new alignment generally followed the half section line to approximately 481st Avenue, where it shifted slightly north. Once past CR 72, the alignment returned to existing US 14, and remained on existing alignment through the end of the study area at CR 6.

Alternative E4. Far South Bypass

Alternative E4 would have utilized the Courtland bypass from CR 12 to approximately ¾ mile east of 531st Avenue where it crossed existing US 14. The new alignment generally followed a half section line to approximately 481st Avenue. Once past 481st Avenue, the alignment shifted south. It returned to the existing US 14 alignment near 478th Street, and remained on existing alignment through the end of the study area at CR 6. Unlike Alternatives E1, E2, and E3, this alternative included consideration of an access to the city only on existing CR 23 alignment approximately 1.25 miles south of US 14 in Nicollet.

2.3 Preferred Alternative

2.3.1 Description of the Preferred Alternative

This section describes the Preferred Alternative for the US 14 project from Front Street in New Ulm to Nicollet County Road 6, west of North Mankato. The Preferred Alternative is Alternative W1 in the West Study Section and Alternative E1 in the East Study Section. The rationale for selecting Alternatives W1 and E1 as the Preferred Alternative over the other Build Alternatives is given in Section 2.3.2. The proposed alignment is shown in the figures in Appendix E. The Preferred Alternative generally follows the alignment of existing US 14 except



where it bypasses Courtland to the north and Nicollet to the south. The Preferred Alternative consists of four travel lanes with opposing directions of travel separated by a median, possible interchanges at major intersections, and at-grade intersections with turn lanes at other public road intersections. Interchanges or other reduced conflict intersections are proposed at MN 15/CR 21, CR 37, CR 24 in Courtland, and CR 23 in Nicollet.

Since the circulation of the DEIS in December 2007, additional analysis has resulted in minor design changes to alternatives W1 and E1 compared to what is described in the DEIS. As a result the reader may note that the Preferred Alternative at some locations is slightly different than the descriptions of W1 and E1 found in the DEIS. These changes were undertaken to increase safety or reduce environmental impacts.

2.3.1.1 West Section

New Ulm to Minnesota Highway 15/Nicollet County Road 21 Intersection

The project begins at the west end of the US 14 Bridge over Front Street in New Ulm. Heading east, the highway will continue as four lanes as it crosses the Minnesota River on a new bridge. A trail that connects the recently developed city trail in New Ulm with CR 21 will parallel the highway to the north.

Between the Minnesota River Bridge and approximately CR 37, the Preferred Alternative will employ a “constrained” cross section (see Section 2.3.4 and Exhibit F-2-8). A constrained cross section will reduce impacts to natural resources and fit better within the topographical constraints imposed by the bluffs and the river valley. The constrained cross section will include a narrow median (approximately ten feet between the edges of inside shoulders) and will have median barrier to reduce the risk of cross median crashes. It may be necessary to use roadside guardrail in some locations. The highway will continue across the Minnesota River floodplain to the US14/MN 15/CR 21 intersection. The elevation of the roadway crossing of the river valley will be determined during detail design, but will likely be higher than the present roadway. The roadway and bridge will be placed at an elevation sufficient to prevent flooding during a 100-year flood event.

While the design of the US 14/MN15/CR21 intersection has not been finalized, there is a preliminary concept and the approximate size of an interchange footprint has been determined. The factors influencing the design include the following:

- Through traffic on MN 15 should have no right angle crossings with through traffic on US 14;
- Through traffic on MN 15 northbound will not stop as they are climbing out of the valley;
- Ideally, CR 21 to the west would be fully accessible;
- If possible and cost effective, CR 21 to the east should be fully accessible (though there exists the possibility of connecting CR 21 to MN 15 on top of the bluff);
- Stopping US 14 traffic, especially westbound, is acceptable because it is near to a reduced speed area;
- The design must be reasonably low cost to ensure it can be built;
- The design must minimize impacts to wetlands, floodplain, and the bluff.



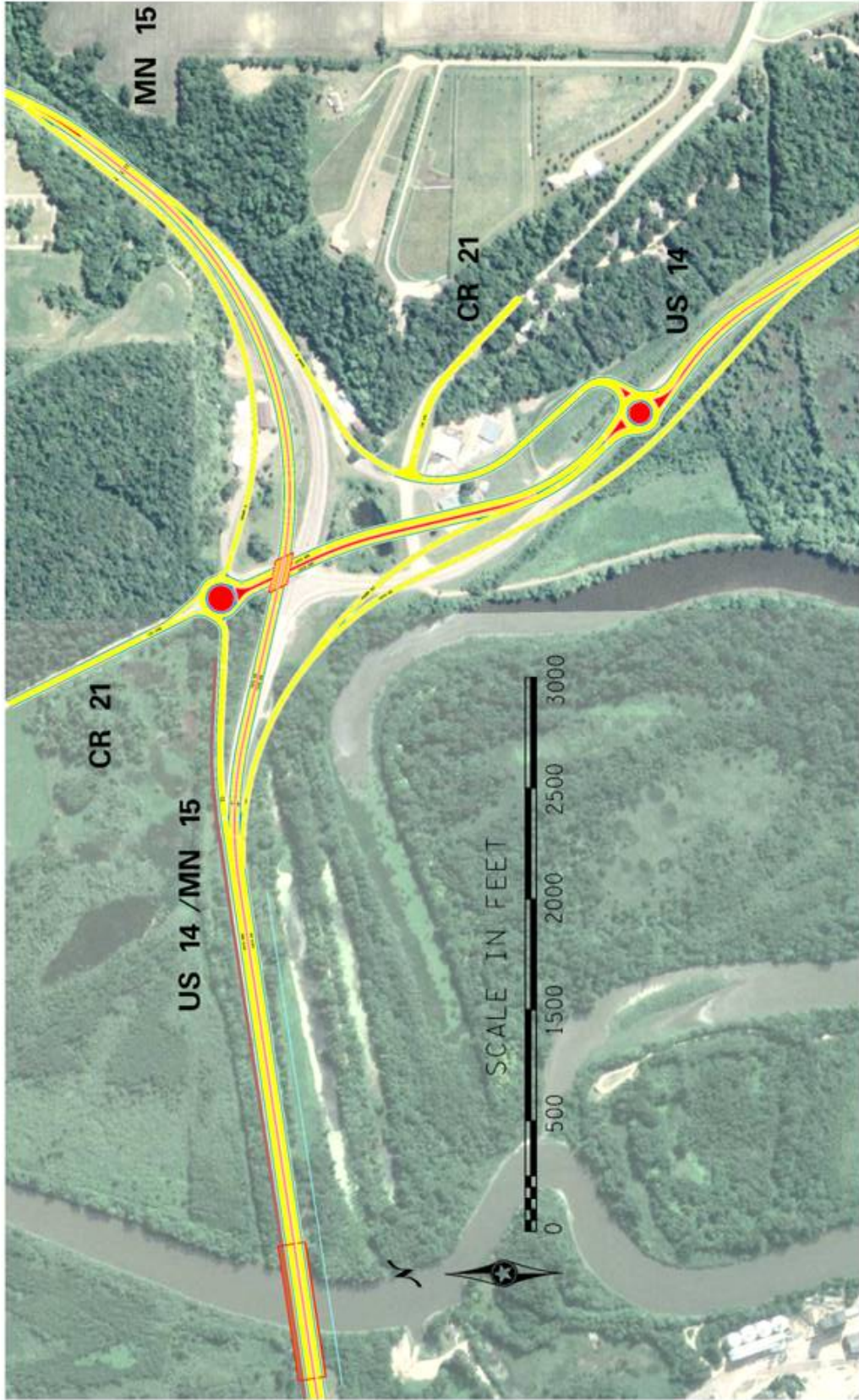


Exhibit F-2-2 depicts the preliminary interchange concept at MN 15. Coming from the river bridge, the inside eastbound lane continues as northbound MN 15 while the outside lane turns southeast for US 14 eastbound traffic. Access for CR 21 west and east is provided by roundabouts on either side of the interchange. Westbound US 14 may access MN 15, CR 21, or continue on US 14 westbound into New Ulm by going through the roundabouts. Southbound MN 15 continues straight through to a merge with US 14 westbound or can take the exit ramp to access US 14 eastbound. Traffic on CR 21 will have full access on both sides of the interchange through two roundabouts. Due to the preliminary nature of the interchange concept described in this FEIS, it is possible that details of the intersection may change before construction. It is the goal of MnDOT to provide access to MN 15 and CR 21 at this intersection without substantial realignment.

Minnesota Highway 15/Nicollet County Road 21 Intersection to Nicollet County Road 37 Intersection

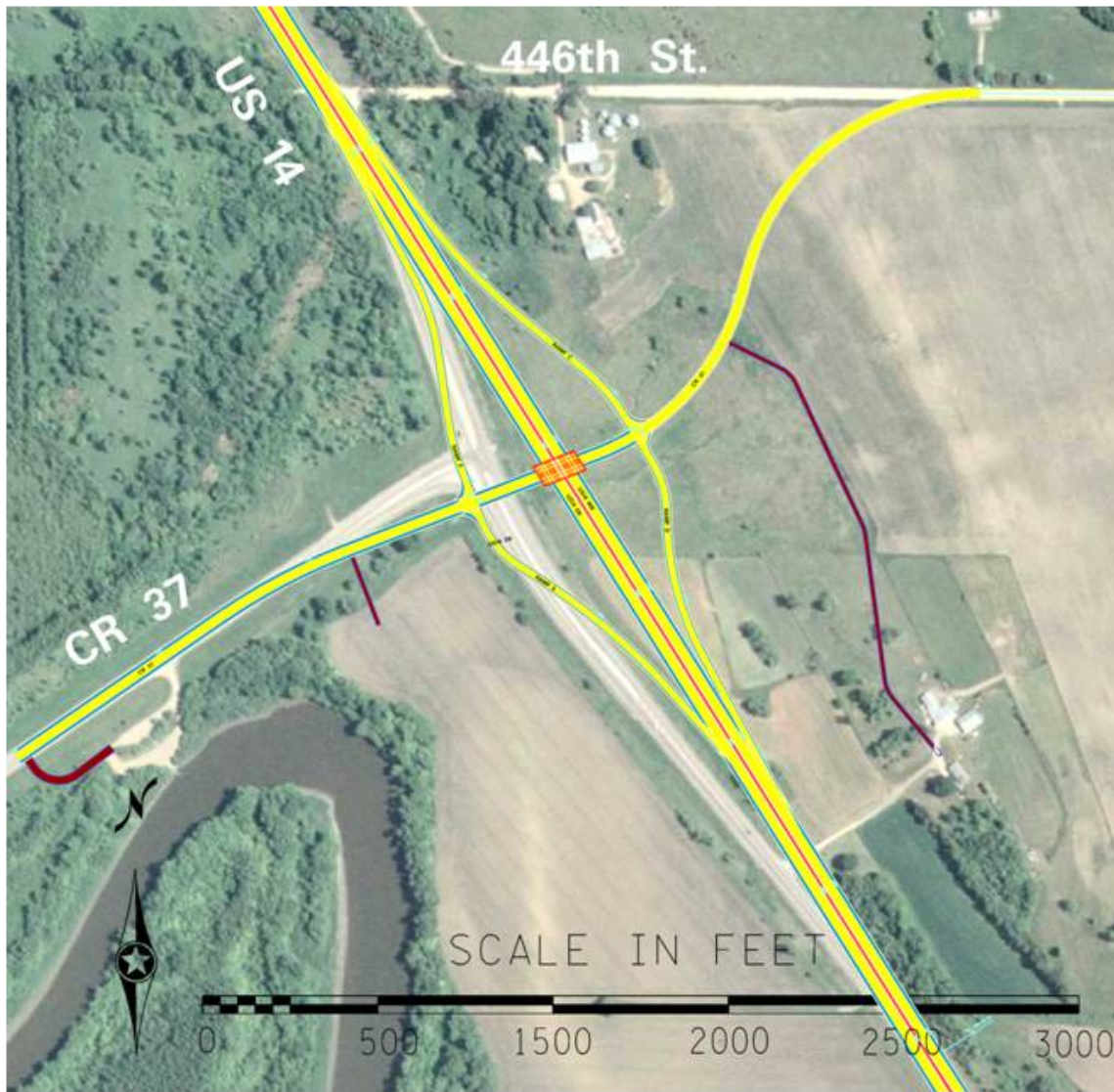
Continuing south from the MN 15/CR 21 intersection, the US 14 Preferred Alternative will continue with a constrained cross section. A segment of the highway just south of the proposed intersection with MN 15/CR 21 is currently within the 100-year floodplain. To reduce floodplain and wetland impacts, this section of the Preferred Alternative may be constructed at or below the 100-year flood elevation. In such a case, traffic could be detoured to MN 15 and Nicollet County Highways 5 and 21 during a flood event.

In this area, the Preferred Alternative will close as many accesses to US 14 as possible and those that remain will only be allowed right in right out access (i.e. no left turns in or out). No accesses will be allowed coming down the bluff because the approaches are too steep to be safely accommodated. The two properties that have access down the bluff now will either get access to township roads on the bluff top or will be acquired if the cost of providing access is excessive.

The access to the New Ulm Spring Roadside Parking Area will consist of a right turn lane into the site from westbound lanes only. The site will include several gravel parking spaces set diagonally at the site and an acceleration lane for use when exiting the site. A barrier may be used between the spring access area and the westbound traffic lanes, as the spring access may encroach into the clear zone of westbound traffic.

Approaching the CR 37 intersection, Highway 14 will continue straight, cutting slightly into the hill opposite CR 37 (see Exhibit F-2-3). This may require some retaining wall on the northeast side of US 14 at this location. The location of the US 14/CR 37 intersection has been shifted slightly from that described in the DEIS in order to avoid the New Ulm Conglomerate archaeological site. This will require CR 37 to be shifted easterly where it is carried over US 14. The ramps of this intersection also have been moved easterly to avoid adversely impacting this archaeological site. This design will avoid impacts to the New Ulm Conglomerate rock outcropping and associated archeological resources. This design will allow a diamond interchange with CR 37 going over US 14 and up the hill on the other side to connect to 446th Street. The construction of an acceptable grade to carry CR 37 over US will likely require relocating the Eckstein Boat Landing access road to a new location to the southwest corner of the landing. A residence located southeast of the intersection will have its access relocated from US 14 to 446th Street, if this is not feasible then this residence may need to be relocated as well.





US 14 Final EIS
New Ulm to North Mankato

Exhibit F-2-3

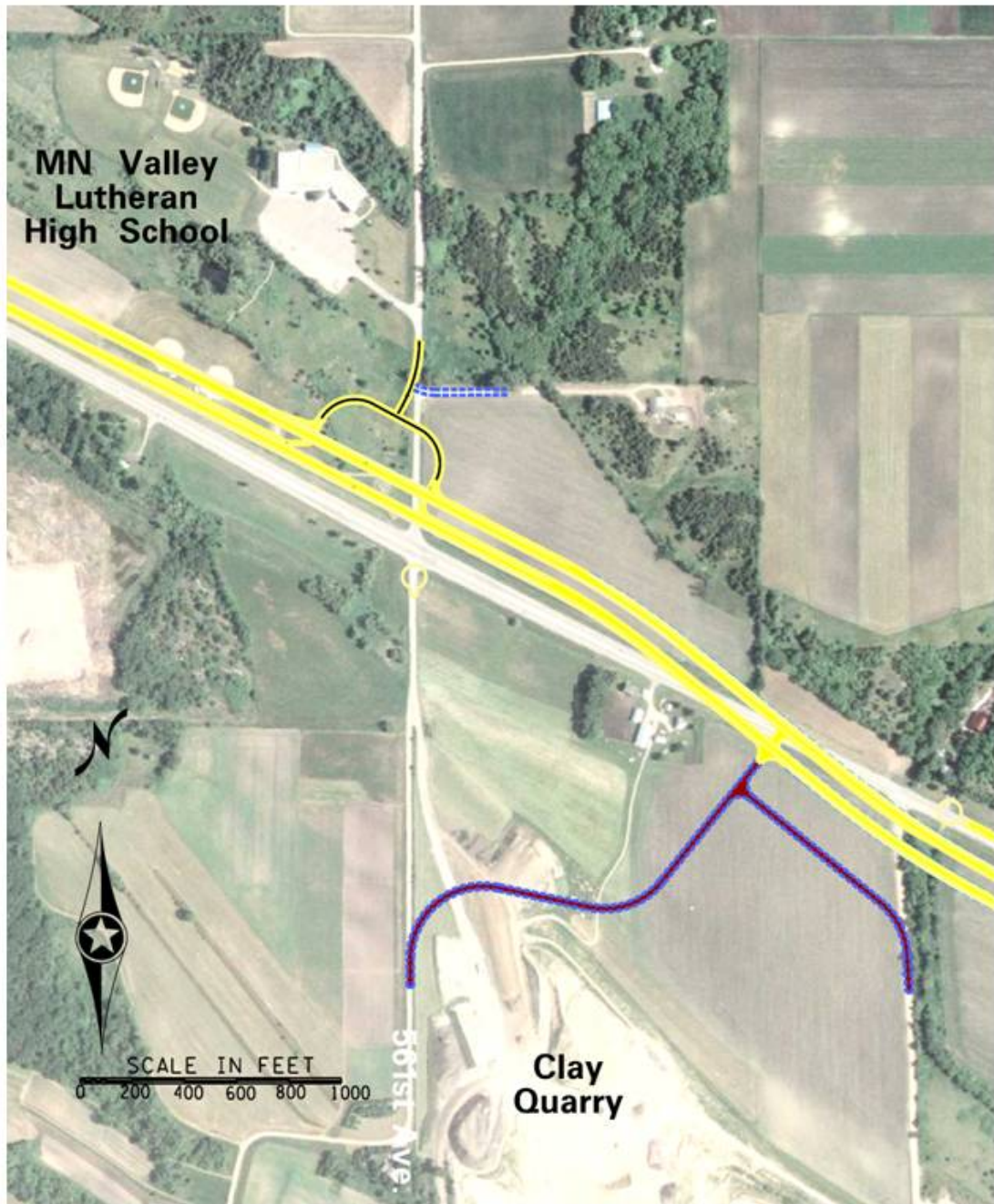
US 14/CR 37 Interchange Concept



US 14 FINAL EIS
NEW ULM – NORTH MANKATO, MN

2-10

DECEMBER 2011



Nicollet County Road 37 Intersection to Nicollet County Road 12 Intersection at Courtland

As the Preferred Alternative of US 14 continues east from the CR 37 intersection, the highway will transition from a constrained cross section to a rural cross section. The highway will climb out of the river valley at a grade similar to the existing highway, approximately 3%.

The current access to the New Ulm Quartzite Quarry is from 571st Lane which causes operational and safety concerns because it is located on a hill and curve. Discussions with the Quarry management suggest that, when the project is built, access can be provided out the east at the next township road on top of the hill. Access at 571st Lane would then be restricted to right-in right-out to serve residences only. It is acknowledged that the location and design of this access is important both for MnDOT and the Quarry and coordination will continue when construction approaches.

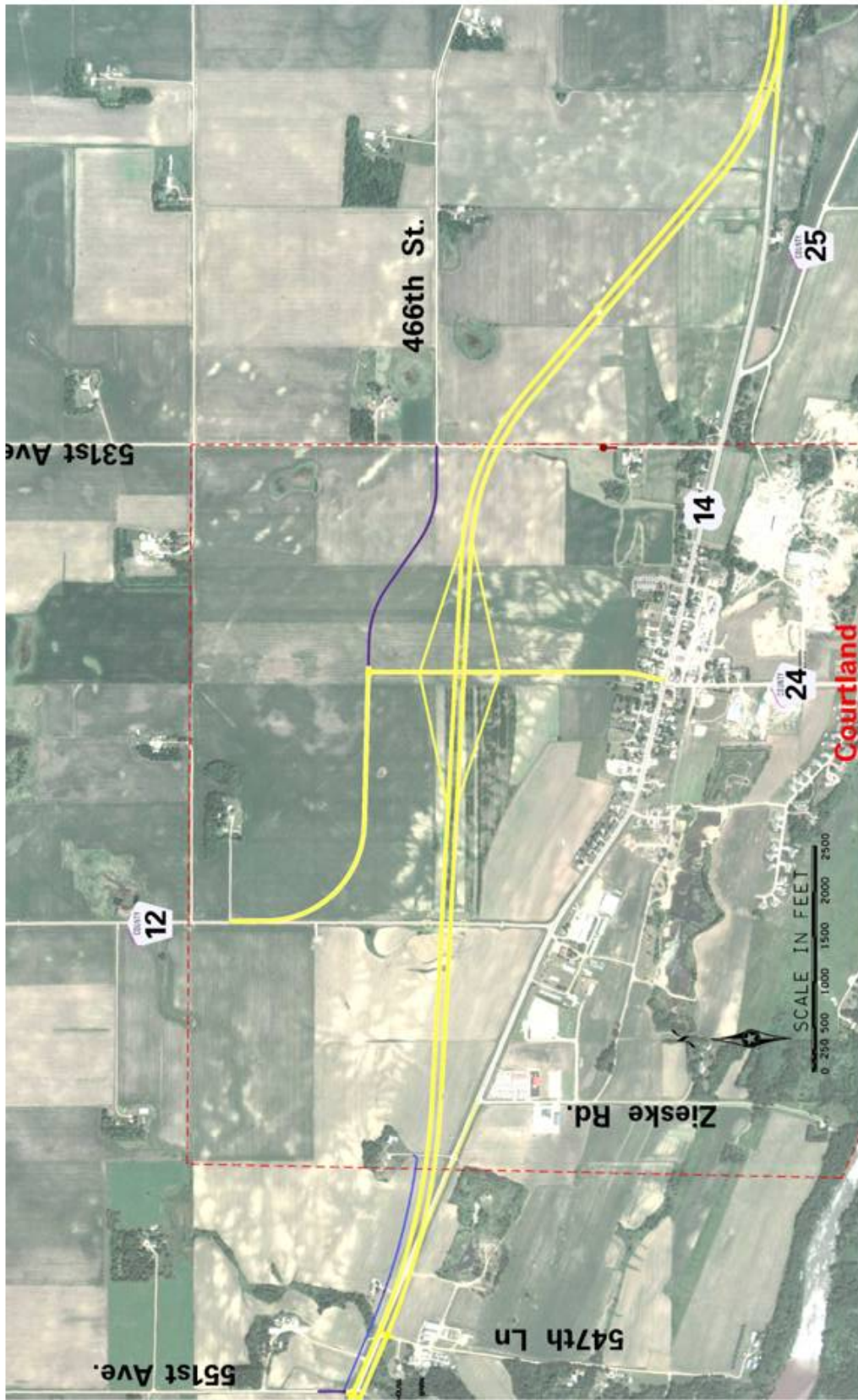
There is a grade differential between the Preferred Alternative of US 14 and residences along Kohn Drive, in the Shady Brook Acres subdivision. It is probable that at least two residences would have needed to be acquired to provide reasonable grades and sight distance at an intersection with US 14. To avoid these relocations, the Preferred Alternative will include an extension of Hillside Lane to connect to either Jeremy Drive or a new road west of Jeremy Drive. This will provide a single point of access for the two subdivisions at a location with a gentler slope and improved sight distance. Preliminary construction limits indicate that four residences closest to US 14 will likely be acquired because the houses will likely be within the Nicollet County setback (85 feet) from the new right of way. West of Jeremy Drive, the Preferred Alternative will shift slightly north of the existing highway, to reduce impacts to the New Ulm Quartzite Quarry and the Kohn Barn, a property eligible for the National Register of Historic Places.

The intersection of the Preferred Alternative with 561st Avenue is proposed to be converted from a 4-legged intersection to two offset T-intersections to improve safety. The westerly of these T-intersections (561st Avenue North) would use a modified design to further improve safety for students driving to and from Minnesota Valley Lutheran High School. The current proposed concept, shown in Exhibit F-2-4, reduces the conflicts for each turning movement to the fewest possible at an at-grade intersection. This concept is still under review and may yet be modified.

The T-intersection of 561st Avenue South would provide access for residents and the clay mine on 561st Street, will have the Kohn barn driveway rerouted to it, and is intended to provide access to the New Ulm Quartzite Quarry. As noted above, details of the quarry accesses will be dependent on quarry operations at the time of construction, and will require coordination with Quarry management.

Accesses to the four residences on the north side of the highway, including the Heim Farmstead (another National Register of Historic Places eligible property) will be provided via a frontage road that will be placed primarily on the existing US 14 alignment. Further to the east, access to the cemetery will be brought over to 551st Avenue. Access to the two residences east of 547th Lane on the north side of the highway will either be at 547th Lane or taken back to 551st Avenue, depending on the location of the Courtland intersection.





US 14 Final EIS
New Ulm to North Mankato

Exhibit F-2-5

Courtland Bypass & Interchange Concept #1

2.3.1.2 East Section

Courtland Bypass

The intersection that will provide access to Courtland is shown as an interchange in Exhibit F-2-5. CR 24 will be extended up the bluff to meet US 14. CR 12 and the township road to the east will be realigned to tie in to CR 24 north of the diamond interchange. This alternative provides ready access for traffic, which includes vehicles hauling from the concrete plant and pits south of existing US 14. It includes a deep cut through the bluff for CR 24 and nearly 1.5 miles of county road realignment. Nicollet County and the City of Courtland prefer this location because it best accommodates the higher traffic volumes at CR 24.

An alternative interchange design was considered that would put the intersection at CR 12. This would have provided the access of a traditional diamond, however the ramps on the north side of the interchange provided access from CR 12 and the existing highway was the connection to the eastbound off and on ramps. This design decreased grades on the ramps by utilizing existing topography. Compared to the first design, this would have required less farmland, but would impact 1.9 acres more wetlands. It could be constructed for less than the first alternative. The CR 24 alternative is the selected alternative.

While an interchange design was used to assess impacts, an at-grade intersection may be a viable, cost effective alternative at the time of construction. In any case, an eastbound off ramp on the west of Courtland and an eastbound on ramp at the east end of the city will be constructed to connect the old highway with the new bypass for convenience.

Courtland to Nicollet

Where the Preferred Alternative is located adjacent to the existing alignment, the new eastbound lanes will generally be built on the existing alignment to minimize impacts to historic properties and wetlands south of the highway. New westbound lanes will be built to the north. Although all residential access details have not yet been finalized, direct residential access to US 14 will be reduced. Residential accesses will either be relocated to township roads or consolidated and served by frontage roads. Full access intersections will be provided at 511th Avenue, 466th Street, 491st Avenue, and 481st Avenue. West of 471st Avenue, the Preferred Alternative will turn south of the existing highway for the Courtland bypass.

Nicollet Bypass

A westbound on ramp will be provided from existing US 14 to the new highway. In the DEIS, an overpass was considered at 471st Avenue, but, due to the low volumes on this township road, it was determined that the expense of an overpass would not be justified. A full at-grade intersection will not be allowed because it would encourage left turns here instead of using the safer intersection at CR 23. A right-in right-out intersection will be allowed on the south side of the highway to reduce the inconvenience to local traffic. East of 471st Avenue, the alignment has been adjusted slightly southwest of the Alternative E1 alignment to reduce wetland impacts.

Access to the City of Nicollet will be at the intersection with CR 23. A standard diamond interchange (see Exhibit F-2-6) is presented for impact analysis, though an at-grade intersection could be built as an interim design. It will require the acquisition of one residence. The road between existing US 14 and the interchange will be redesignated as MN 111.





Nicollet to North Mankato

Continuing east from the MN 111/CR 23 intersection, the Preferred Alternative will return to the alignment of existing US 14. The eastbound lanes are planned to be located on existing US 14 with westbound lanes being constructed to the north. Several public and private accesses to existing US 14 will be closed, rerouted to a local road, or consolidated. Where it is not feasible to relocate an access, either the property will be acquired or a right-in right-out access permitted, or in unusual circumstances, a full access will be built. The intersections with Nicollet County Roads 25, 17, and 6 will remain but will be realigned to intersect at a 90 degree angle with US 14.

2.3.2 Rationale for Selecting the Preferred Alternative

The purpose of developing this EIS was to consider the full range of effects of a variety of alternatives to solve the transportation problems on US 14. By bringing traffic and environmental information together in the DEIS, the decision makers at FHWA and MnDOT were equipped to select an alternative that best meets the project's purpose (as described in Section 1.5) while minimizing the impacts.

The Preferred Alternative was selected because it does the causes the least harm to the environment while best fulfilling the transportation needs. While the Preferred Alternative does have greater impacts in some areas, in others the impacts are less. A full discussion of the environmental impacts of the project is presented in Section 3; however, a comparison of the most important factors in deciding between the alternatives is given here.

2.3.2.1 West Study Section

In the West Study Section the basic project choice was whether to construct an improved highway on top of the bluff (Alternative W2), or to remain on or near the existing US 14 (Alternative W1), or to use a combination of the two (Alternative W3). The most important factors in determining which alternative to construct included effects on the transportation system, agricultural resources, wetlands, floodplains, erosion control and water quality, woodland habitat, visual quality, relocations, and long term costs and maintenance. While other factors certainly weighed in on the decision, these emerged as the issues that distinguished the West Study Section alternatives.

No Build Alternative Compared to the Preferred Alternative

The No Build Alternative, while minimizing many of the environmental impacts, does nothing to improve safety and add capacity to the highway. This alternative could only be justified if the environmental impacts of the Preferred Alternative were so significant that they outweigh the benefits of safer, more efficient travel. The safety issues identified in Section 1.4.2, especially the crashes at the intersections with MN 15 and with CR 37, as well as the lack of capacity on the highway discussed in Section 1.4.3 show that the implications of the No Build Alternative are significant. Therefore, the No Build Alternative is not preferred.

Alternative W2 Compared to the Preferred Alternative

The benefits of Alternative W2 derive from getting away from the Minnesota River and from the land uses along the existing highway. These include fewer wetland (4.4 vs. 13.7 acres) and



floodplain (25 vs. 44 acres) impacts compared to the Preferred Alternative. Alternative W2 would have also avoided relocations at a rural residential development, traffic impacts due to blasting and trucks entering at the New Ulm Quartzite Quarry and clay mine, and safety concerns with young drivers at the Minnesota Valley Lutheran High School (MVL). These impacts and concerns could be avoided by going up the bluff at MN 15 as Alternative W2 proposes.

Getting up and away from the river, however, carries notable impacts on the forested bluffs overlooking the Minnesota River valley. The bluff cut required to construct Alternative W2 would have been 65 feet below the existing ground at the top of bluff. Including the highway, ditches, and maximum acceptable back slopes, this bluff cut would have been more than 530 feet wide. This would have resulted in significant visual impacts, with the bluff cut being visible for miles and from much of new Ulm. The linear woodland habitat along the bluff would have been bisected by this cut and the woodland in the cut area would be lost. The ditch, because it would be sloping steeply, and the slopes from the ditch bottoms up to existing ground would have a high potential for erosion. The stability of the constructed slope would also be an ongoing maintenance concern due to the presence of water seeps along the bluff side in this area.

At Heyman's Creek Alternatives W2 would have required fill into the deep ravine that would have affected more habitat. This alignment would require a bridge approximately 500 feet in length at an additional cost of about five million dollars. The steep side slopes on the ravine present a high risk for requiring a still longer bridge to avoid stability problems. The alignment for Alternative W2 would cross other, smaller creeks and areas with higher slopes that drain toward the Minnesota River.

Alternative W2 would have a high potential for water quality impacts because of the bluff cut, ravine crossings, and construction on steeper slopes. Furthermore, the existing highway would stay in place without any additional construction of ponds to treat runoff before it enters the Minnesota River. Compared against the additional nine acres of wetland impact and 19 acres of floodplain impact (a small amount given the 4000 foot width of floodplain in this stretch of river) of the Preferred Alternative, Alternative W2 can reasonably be expected to cause more harm to water resources. When mitigation for wetland impacts is added in, the Preferred Alternative is a much better option.

Alternative W2 would avoid wetland and residential impacts by utilizing an alignment with many curves. While these curves were all designed to meet highway standards, they would have a large impact on farmland and farming operations. Alternative W2 would use more than twice the farmland (300 vs. 145 acres) of the Preferred Alternative. Furthermore, it cuts up 12 farm properties as compared to only one for the Preferred Alternative. Because access to the highway will be tightly limited, farmers would need to take circuitous routes, in some cases with several miles of additional travel, to reach the severed portions of fields. The highway would have also severed these fields at an angle to the property lines, resulting in less efficient farm operations.

Both the Preferred Alternative and W2 would provide for the basic transportation purposes of the project. Alternative W2 would limit access more effectively, but the Preferred Alternative



uses gentler grades and fewer curves and would be sheltered from blowing snow in the winter. Concerns over traffic safety at MVL have been mitigated by the design of an improved intersection concept.

The additional costs for the bluff cut at MN 15 and the bridge over Heyman's Creek as well as the ongoing maintenance costs of those two features and the existing highway (which would become a county road) result in a much more cost effective project by building the Preferred Alternative instead of Alternative W2.

Alternative W3 Compared to the Preferred Alternative

Alternative W3 is identical to the Preferred Alternative west of CR 37. It has essentially the same wetland and floodplain impacts. The benefits Alternative W3 would offer include avoiding the Quartzite Quarry, the rural residential development, and MVL.

The bluff cut for Alternative W3 would have been of a similar order of magnitude to that of Alternative W2, but it would have had a less dramatic visual impact because the slope is not forested like the bluff at MN 15. However, because of the bluff cut and the need to cross the Heyman's Creek ravine, coupled with the wetland and floodplain impacts, this alternative presents the most potential harm to water resources.

Most of the impacts to farmlands and farming operations discussed in conjunction with Alternative W2 apply to Alternative W3. Alternative W1 results in a fraction of the impact to these important resources and the people whose livelihood is derived from them.

The expense of the bridge over Heyman's Creek and the costs of turning back the existing highway to the county and maintaining two roads further support the decision to build on the existing alignment with the Preferred Alternative.

2.3.2.2 East Study Section

In the East Study Section there was a similar choice of staying on the existing route or selecting a new alignment alternative. The most important factors in determining which alternative to construct included effects on the transportation system, agricultural resources, wetlands, land use near Nicollet, cultural resources, and long term costs and maintenance. Because of the predominance of row crop agriculture in this area, other factors were less critical in selecting the Preferred Alternative.

No Build Alternative Compared to the Preferred Alternative

As with the West Study Section, the No Build Alternative would fail to address serious safety concerns at MN 111/CR 23 and head on crashes along the corridor. These problems can be expected to grow over time as traffic volumes increase, resulting in a deteriorating Level of Service. The impacts of building on the Preferred Alternative are very small compared to the risks of the No Build Alternative.

Alternative E2 Compared to the Preferred Alternative

Alternative E2 would result in impacts to 45 acres of more farmland and 5.2 acres of more wetlands than the Preferred Alternative. The benefits of this alternative would include avoiding



6.2 acres of impact to the Swan Lake Wildlife Management Area (WMA) and avoiding a hog buying station and potential impacts to a hog feed lot. Despite these benefits the Preferred Alternative is an environmentally preferable alternative because of the reduced wetland and farmland impacts.

Alternative E3 Compared to the Preferred Alternative

Alternative E3 would result in 115 acres of additional farmland impacts and 8.5 acres more of wetland impacts than the Preferred Alternative. It would still impact three acres of the Swan Lake WMA. It also results in a situation where three paved highways run in parallel (new US 14, existing US 14 and CR 25) within a mile and a half of one another. This redundant roadway system would require ongoing maintenance and be generally detrimental to wildlife movements and water quality.

Alternative W3 would avoid impacts to stone box culverts associated with the historic Winona & Saint Peter (WSP) Railroad line and reduce access issues. The stone box culverts are not individually eligible for the National Register of Historic Places and are not unique on the rail corridor. They also hold extremely little interpretive value. It would not be worth the impacts to peoples' farms and area wetlands to avoid the impacts to the culverts. Access along the existing alignment is not so frequent as to constitute a critical concern, and, where practical, accesses will be consolidated. Therefore, the Preferred Alternative provides the most benefits compared to the environmental impacts.

Alternative E4 Compared to the Preferred Alternative

Alternative E4 would avoid the stone box culverts on the WSP Railroad line and avoid impacts to the Swan Lake WMA. It would also result in 3.6 acres fewer wetland impacts than the Preferred Alternative.

The impact of Alternative E4 on farming would be much greater than the Preferred Alternative. There would be 23 more farm parcels impacted with 130 additional acres required as right of way. Also, eight more parcels would be divided by the highway.

Access to Nicollet would be located $\frac{3}{4}$ mile farther south instead of immediately adjacent to the south edge of development in the city. In addition to causing a large portion of the traffic to travel farther on a two lane highway, this would likely result in leapfrog development where highway commercial businesses get built around the intersection away from the rest of the city. This would create a burden for the city in providing utilities. The City of Nicollet specifically requested that the highway be located on one of the three near south bypass alternatives (i.e., E1, E2, or E3).

Alternative E4 would cross and cause the realignment of more streams and county ditches than the Preferred Alternative will. These impacts, the redundant roadway system with three east-west oriented highways described with Alternative E3, and the fact that the existing highway would continue to be used without adding treatment for water runoff, would reasonably result in more impacts to water quality under Alternative E4 than under the Preferred Alternative.

Given the combination of impacts of Alternative E4, the Preferred Alternative provides for the most benefit with the least environmental harm.



2.3.2.3 Environmentally Preferable Alternative

As discussed above, the Preferred Alternative, by utilizing the existing alignment, provides the least overall impact to resources in both the short and long term. The Preferred Alternative is the best from a transportation perspective and is the environmentally preferable alternative.

2.3.3 Rural 4-Lane Highway—Design Assumptions

MnDOT used a 4-lane rural highway design for preliminary engineering on most sections of all Build Alternatives. This design best addresses safety and operational deficiencies and is most consistent with MnDOT's long-range corridor plans. Exhibit F-2-7 shows highway and right-of-way widths of a typical 4-lane rural roadway; which generally consists of:

- 2-12 foot travel lanes, a 10 foot outside shoulder, and four foot inside shoulder
- 90 feet between roadway centerlines (58 feet between inside shoulders)
- Typically 290 feet wide right of way (more where topography is not flat)
- 70 mph design speed¹ (posted at 65 mph for consistency with state law)
- Left and right turn lanes at intersections
- Managed access

2.3.4 Constrained 4-Lane Highway—Lower Impact Design Near the Minnesota River

The section of highway between Front Street in New Ulm and CR 37 is constrained by the river to the south and bluffs to the north. Therefore, the Preferred Alternative includes a constrained (urban-type) design for this section to avoid and minimize potential impacts to wetlands and the Minnesota River floodplain. The constrained design consists of standard lane and shoulder widths. Curb and gutter may be used on the outside edges to channel runoff to treatment facilities. The median between opposing traffic lanes will be narrow. The use of median barrier will be evaluated for use in the constrained cross section, and may include a rigid (concrete) barrier, a semi-rigid barrier (plate beam), or flexible (cable) design. Typical highway and right-of-way widths for a constrained design are summarized below and in Exhibit F-2-8.

For the Preferred Alternative W1 MnDOT proposes to use a constrained (urban-type) design from the Minnesota River Bridge to CR 37. This design helps avoid and minimize potential impacts to wetlands, the Minnesota River floodplain and other resources by reducing the overall roadway width.

¹ A design speed of 70 mph means the speed selected to determine the highway's appropriate geometric design features—for example, curvature, sight distance, shoulders, and roadside. Design speed is thus the maximum speed that can be safely maintained when other conditions (for example, weather and traffic) are favorable, so that highway design restrictions govern.



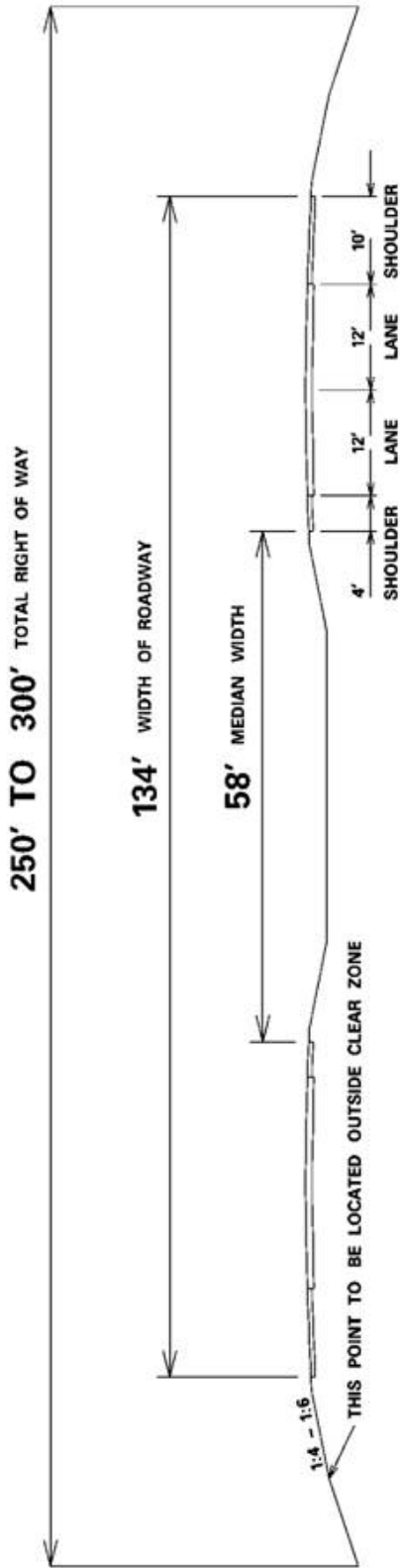


Exhibit F-2-7
4-Lane Rural Highway Design

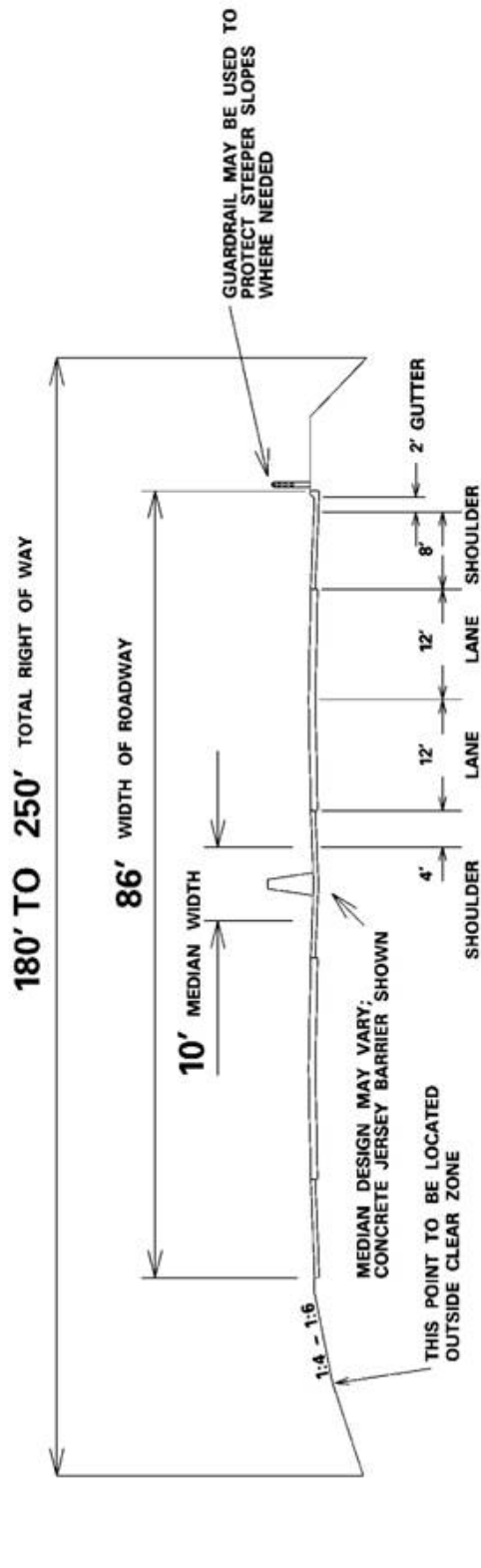


Exhibit F-2-8
4-Lane Constrained (Urban) Highway Design

- 2-12 foot travel lanes, a 10 foot outside shoulder, and four foot inside shoulder
- 42 feet between roadway centerlines (10 feet between inside shoulders)
- Possible curb and gutter on the outside shoulders
- Possible median barrier to separate opposing travel lanes
- Variable right of way due to the bluff on one side and slope down to the river on the other
- 70 mph design speed (posted at 55 or 65 mph for consistency with state law) with potentially lower speeds from New Ulm through US 14/MN15/CR 21 intersection area
- Left and right turn lanes at intersections
- Managed access (see Section 2.4.4 for more information)

The constrained design will not be used for the entire corridor because the rural highway design, with a 66-foot median, reduces the likelihood of cross-median crashes compared to the constrained design. The constrained design is more expensive to build and requires additional ongoing maintenance.

2.3.5 Proposed Intersections and Access Features

2.3.5.1 Intersections

It has been MnDOT's experience that high volume intersections, such as those that provide access to small cities, on high speed expressways lead to crash problems. This is evident on the existing highway with its high crash rates at the entrances to New Ulm (MN 15 and CR 37) and Nicollet (MN 111/CR 23). When problems begin to develop on these routes there is typically a request from the public to place traffic signals to improve safety. However, signals do not necessarily improve safety, but they can have a significant detrimental effect on mobility. The surest, though costliest, method to ensure safe operation and maintain mobility at these intersections is to construct a grade separated interchange. To properly account for potential environmental impacts of interchanges, they have been included in the plans for all of the Build Alternatives. The Preferred Alternative (as well as all the other Build Alternatives) includes interchanges at MN 15/CR 21, CR 37, CR 24 in Courtland, and Nicollet at MN 111/CR 23. While interchanges are considered the ultimate, large-scale configuration for these four locations, interim design might include two-way stop intersections or innovative designs such as roundabouts or restricted crossing U-turns (as shown in Exhibit F-2-9).





Exhibit F-2-9
Restricted Crossing U-Turn

MnDOT hosted an Interchange Workshop in June 2004, attended by representatives from Brown and Nicollet Counties, the Cities of New Ulm, Courtland, and Nicollet, and MnDOT. Several interchange design concepts were developed at the potential interchange locations. The *Interchange Workshop Report* (August 2004) summarizes MnDOT's recommendations (available on the Project Website). This was followed by additional study in March 2007 that considered the interchanges at MN 15/CR 21 and at CR 37, the results of which are documented in the *Interchange and Intersection Type Comparison*, which is available on the Project Website (<http://www.dot.state.mn.us/d7/projects/14newulmtonmankato/>). Development of the intersection concepts has been ongoing since and will continue when project construction is programmed.

2.3.5.2 Access Features

Frequent accesses have a detrimental effect on the safety and mobility of highways. As an interregional corridor whose primary purpose is to move traffic over medium to long distances, US 14 will be reconstructed as a four-lane divided expressway with limited access. All Build Alternatives involved limiting access to well-spaced public roads in safe locations wherever possible. Private accesses are undesirable on an expressway and will be realigned to local roads wherever practical. In exceptional cases where the cost or environmental impact is high or the realigned access is unreasonably long, private access to the highway will be allowed.

MnDOT's access management guidelines have been used as a general basis for determining which accesses are acceptable. The Preferred Alternative generally falls under the category of rural medium priority interregional corridors. This allows for one full access public road intersection per mile. A second full access public road may be allowed within each mile block if a gap analysis indicates that it can be safely accommodated. If not, the intersection may be restricted to a right-in right-out. Access may be further reduced to meet design standards for access spacing near interchange ramps (both on the mainline and up to 780 feet from the ramp on the side road) or in response to unusual conditions that would impair safety. Tables F-2-1 and F-2-2 show the proposed access for the Preferred Alternative, and for each of the Build Alternatives in the West and East Study Sections. Existing public access points to US 14 that are not shown in the tables are to be closed. Further changes may be made to road accesses in order to improve safety or reduce costs following additional detailed discussions with local road authorities.

TABLE F-2-1
West Study Section Proposed Public Road Access

Road Name	Proposed Access		
	Preferred Alt W1	Alt W2	Alt W3
MN 15	Interchange		
CR 21 West	Interchange w/ MN 15 if reasonably possible	Realigned along MN 15 to top of bluff	Interchange w/ MN 15 if reasonably possible
CR 21 East	Interchange w/ MN 15 if reasonably possible	Realigned to MN 15 near interchange	Interchange w/ MN 15 if reasonably possible
577 th Avenue	NA	T-Intersection to realigned MN 15	NA
446 th Street	Realigned to CR 37	Realigned to CR 37	Realigned to CR 37
CR 37	Interchange or enhanced at-grade intersection		
571 st Avenue	Right-in Right-out	NA	Right-in Right-out
Kohn Drive	Realigned to shared intersection with Jeremy Drive	NA	NA
Jeremy Drive	Realigned to shared intersection with Kohn Drive	NA	NA
561 st Avenue North	T-intersection modified to reduce conflicts	No access	No access
561 st Avenue South	T-intersection realigned to east	NA	NA
551 st Avenue	T-intersection	4-legged Intersection	4-legged Intersection
547 th Avenue	T-intersection	NA	NA
Existing US 14 west of Courtland	Right-off	NA	NA

TABLE F-2-2
East Study Section Proposed Public Road Access (from west to east)

Road Name	Proposed Access			
	Preferred Alt E1	Alt E2	Alt E3	Alt E4
CR 12	Realigned to CR 24			



TABLE F-2-2

East Study Section Proposed Public Road Access (from west to east)

Road Name	Proposed Access			
	Preferred Alt E1	Alt E2	Alt E3	Alt E4
CR 24	Interchange or enhanced at-grade intersection			
531 st Avenue	Realigned to CR 24			
Existing US 14 east of Courtland	Possible Right-on	Possible Right-on	Overpass	Overpass
511 th Avenue	4-legged Intersection	4-legged Intersection	4-legged Intersection	4-legged Intersection
CR 21	4-legged Intersection	4-legged Intersection	T-intersection	T-intersection
501 st Lane	NA	NA	T-intersection	T-intersection
491 st Avenue	4-legged Intersection	4-legged Intersection	4-legged Intersection	4-legged Intersection
481 st Avenue	4-legged Intersection	4-legged Intersection	4-legged Intersection	4-legged Intersection
Existing US 14 west of Nicollet	Possible Right-on	NA	NA	NA
471 st Avenue	Right-on Right-off from South	Right-on Right-off from South	Full Access Intersection	Full Access Intersection
MN 111/CR 23	Interchange or enhanced at-grade intersection			
451 st Avenue	Realigned to south	Realigned to south	Realigned to south	NA
478 th Street	Realigned 4-legged Intersection	Realigned 4-legged Intersection	Realigned 4-legged Intersection	Realigned 4-legged Intersection
490 th Street	4-legged Intersection			
431 st Avenue	4-legged Intersection			
CR 25	T-intersection from the west (access to east to be eliminated)			



TABLE F-2-2

East Study Section Proposed Public Road Access (from west to east)

Road Name	Proposed Access			
	Preferred Alt E1	Alt E2	Alt E3	Alt E4
CR 17			T-intersection	
CR 77			T-intersection	
510 th Street			Access Eliminated	

2.4 Project Cost and Benefit-Cost Analysis

Table F-2-3 provides a summary of the estimated capital costs to build the various project alternatives. This includes real estate (acquisition of right-of-way and costs for residential and business relocations) and a separate line-item estimate for the proposed Minnesota River Bridge improvements. The low end of the range is the best case estimate. The upper end of the range includes the full cost if all of the identified risks were realized. The estimates are in 2010 dollars so the costs are expected to be greater than this due to the uncertain timeframe of construction.

Cost Category	No Build ¹	West Build Alts.			East Build Alts.				Preferred Alternative Total
		Pref Alt W1	W2	W3	Pref Alt E1	E2	E3	E4	
Construction Costs ²	9.9	67.0-89.3	71.5-93.7	71.9-106.9	84.8-115.9	86.0-115.4	87.3-115.9	81.4-104.2	151.8-205.2
Environmental and Additional Costs ³	0.0	0.3-0.7	0.2-0.5	0.3-0.7	0.2-0.3	0.3-0.4	0.3-0.4	0.1-0.2	0.5-1.0
Land Acquisition/ Right-of-Way and Relocation Costs ⁴	0.0	7.0-20.0	9.8-16.1	7.1-14.2	9.4-17.6	8.7-16.8	10.0-18.8	10.3-16.0	16.4-37.6
Turnback Costs ⁵	0.0	0.5-1.0	3.2-7.2	2.2-5.0	2.6-5.9	4.1-9.1	5.0-11.1	5.5-12.4	3.1-6.9
TOTAL	9.9	74.8-111.0	84.7-117.5	81.5-126.8	97.0-139.7	99.1-141.7	102.6-146.2	97.3-132.8	171.8-250.7



TABLE F-2-3

Preliminary Capital Cost Estimate Summary (\$ Millions 2010)

Cost Category	No Build ¹	West Build Alts.			East Build Alts.				Preferred Alternative Total
		Pref Alt W1	W2	W3	Pref Alt E1	E2	E3	E4	
NOTES:									
¹ Improvements under the No Build Alternative are limited to normal pavement maintenance, spot traffic operational improvements, and minor safety improvements.									
² Highway construction costs assume that portions of Build Alternatives that use the existing highway route would be completely reconstructed. Costs do not include engineering.									
³ Environmental and Additional Costs include estimated costs for wetland mitigation and historic/cultural resource mitigation.									
⁴ Land Acquisition/Right-of-Way and Relocation Costs include estimated costs for right-of-way and relocation									
⁵ Turnback includes costs for replacing existing pavement on portions of US 14 that would be transferred from MnDOT to Nicollet County jurisdiction. This can range from resurfacing to reconstruction, depending on the condition of the road at the time of the turnback									

Preferred Alternative Costs

The Preferred Alternative for the West Study Section of the US 14 project is the least expensive of the Build Alternatives considered. All of the Build Alternatives in East Study Section are close in cost.

In Table F-2-3, total costs for the Preferred Alternative were projected as approximately \$172 to 250 million in year 2010 dollars. The uncertainty associated with the timing and funding of the overall project and the rate of cost increases into future years make actual costs of construction and right of way virtually impossible to predict precisely. Nevertheless, preliminary cost estimates such as these provide an approximate magnitude of the cost of the project. This is very helpful for making informed judgments about MnDOT funding allocations around the state and within MnDOT District 7. The cost estimate also allows for comparisons among alternatives to determine whether any of them is considerably more or less expensive than the others. Finally, costs estimates allow a benefit-cost analysis to be performed. Benefit-cost ratios provide a measure of how the economic benefits of an alternative contrast with the costs, allowing additional comparison between alternatives and a consideration of the projected return on investment.

A benefit-cost analysis was performed for this project and the results are shown in Table F-2-4. The benefit-cost analysis is based on determining the present value of the anticipated benefits and costs associated with each of the Build Alternatives compared to the No Build Alternative. The benefits measured in the MnDOT benefit-cost analysis methodology are travel time, operating costs, and safety. Other factors such as annual maintenance costs, major replacement costs, and remaining value of project components (such as structures and right-of-way) at the end of the study period are also considered. All benefits and costs are estimated over a 30 year period and the net present value of each is determined. The value of the benefits is then divided by the costs.



Build Alternative	West Build Alts.			East Build Alts.			
	W1	W2	W3	E1	E2	E3	E4
Estimated Net Present Value of Benefits (\$ millions)	44.4	35.8	38.3	58.9	65.9	64.1	73.2
Upper End of Cost Estimate Range (\$ millions)	65.1	66.9	70.9	90.5	91.6	94.3	86.4
Lower End of Cost Estimate Range (\$ millions)	49.8	56.0	53.3	65.0	66.6	68.6	65.3
Benefit-Cost Ratio	0.68-0.89	0.53-0.64	0.54-0.72	0.65-0.91	0.72-0.99	0.65-0.94	0.85-1.12

As shown in Table F-2-4, the Preferred Alternative and the other Build Alternatives have a benefit-cost ratio that may fall below 1.0, indicating that the measured costs of the alternatives are greater than the measured benefits. However, the comparison does not account for other unique factors of each alternative such as social and environmental impacts and long-term functionality of the infrastructure, which are more difficult to quantify. MnDOT guidance for analysis of a project's cost-effectiveness requires consideration of social, environmental, or community goals and business impacts critical to the project if the benefit-cost ratio is less than 1.0. These types of critical goals are more difficult to quantify as monetary benefits or costs, but are part of the project's purpose and need, as described in Section 1. The following critical goals of this project are also important to consider in determining whether the project is worthy of receiving public funding:

- US 14 from New Ulm to Rochester is part of Minnesota's interregional corridor (IRC) system. The IRC system is integral to the safe, timely, and efficient movement of people and goods between regional trade centers across Minnesota. This segment of US 14 between New Ulm and North Mankato is the only section of the US 14 interregional corridor which has not yet obtained approval for upgrading to a four lane highway or already been constructed. Maintaining system continuity as a four-lane facility between these population and trade centers is critical to the long-term functionality of this corridor and very important for the social and economic vitality of communities between these termini. The proposed action is needed to protect and enhance the long term ability of this section of US 14 to operate at the target speed of 55 mph.
- While safety improvements are calculated as part of the benefit-cost analysis, it is difficult to quantify and project trends in number and severity of crashes. The method of benefit-cost analysis used in this study assumes a static (i.e., non-changing) crash rate and severity rate for the corridor over the twenty-year analysis period. However, as traffic volumes go up, so do crashes. Increased levels of congestion over this timeframe would likely be associated with an increase in crashes across the corridor, but especially in the growing communities of Courtland and Nicollet. For this corridor, especially known to have high crash severity rates, an underestimation of the crashes in a No Build alternative would have the effect of underestimating the benefits of a Build Alternative.



- The cities of Courtland and Nicollet have recognized the long-term adverse impacts of increased congestion on their communities, and the need to plan for a new US 14 alignment that by-passes each city. Both cities passed resolutions to this effect in the summer of 2005. The City of Courtland has planned for this by incorporating a bypass into their Comprehensive Plan.

While the benefit-cost ratio is below 1.0, the critical goals described above and in Section 1 provide the qualitative basis for proceeding with the proposed project. In the design development of the Preferred Alternative, MnDOT will continue to assess opportunities for improving the Project's cost-effectiveness.

In September 2010, a Value Engineering Workshop was held to identify opportunities to improve value on the project. Value improvements are obtained by either increasing performance (e.g., making the facility safer) or reducing the cost. Several recommendations were identified that will be given consideration by the project team during final design. These recommendations may result in modifications to access locations and highway designs which would result in minor reductions to or tradeoffs between environmental impacts.



SECTION 3

**Affected Environment, Environmental
Consequences, and Mitigation Measures**

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SECTION 3

Affected Environment, Environmental Consequences, and Mitigation Measures

3.1 Introduction

Section 3 of this FEIS combines a discussion of the affected environment with potential environmental impacts and mitigation. When describing impacts, this section frequently refers to the project alternatives. Therefore, to better understand this section, the reader should review Section 2, Alternatives. It is also important to refer to the Exhibits F-E-1 through F-E-4 in Appendix E to better understand the scope of the impacts of the Preferred Alternative.

3.1.1 Environmental Impact Categories and Relative Importance

Section 3 is organized into sub-sections based on the environmental categories listed below. While all aspects of the environment relevant to the project are discussed, some environmental topics emerged as more important than others. The ten key environmental factors highlighted in *bold italics* in the list below are those identified as most important in the original *Scoping Decision Document* (March 2003) and with a similar discussion of project issues in the *Amended Scoping Decision Document* (October 2005), and analyzed in the DEIS.

- *Relocations and Right-of-Way* (3.2)
- *Land Use and Visual Quality* (3.3)
- *Agricultural Resources and Soils* (3.4)
- *Transportation* (3.5)
- *Socioeconomics* (3.6)
- *Surface Water, Water Quality, Erosion Control, and Slope Stability* (3.7)
- Ground Water (3.8)
- *Wetlands* (3.9)
- *Floodplains* (3.10)
- Upland Habitat and Wildlife (3.11)
- Threatened and Endangered Species (3.12)
- *Cultural Resources-Historic and Archaeological, and Section 106 Evaluation* (3.13) (Note: Also see Appendix A: Final Section 4(f) Evaluation)
- *Public Lands* (3.14)
- Contaminated Properties and Materials (3.15)
- Air Quality (3.16)
- Noise (3.17)
- Indirect and Cumulative Impacts (3.18)
- Permits and Related Approvals (3.19)
- Relationship of Short-term Uses v. Long-term Productivity (3.20)
- Irreversible and Irretrievable Commitments of Resources (3.21)
- Construction and Excess Material (3.22)

Section 3 provides a description of the impacts of the Preferred Alternative and a comparison of the anticipated impacts of the various the project alternatives. The No Build Alternative only has impacts identified for those categories in which the environment itself is changing (e.g. Socioeconomics or Noise). Impacts associated with the Build Alternatives were calculated using the footprints shown on Exhibits F-E-1 through F-E-4. This includes the overall right-of-way needed for each alternative, as well as specific acreage impacts to agricultural lands, wetlands,

floodplain, and others. Impacts to some categories such as visual quality, air quality, and noise extend beyond the footprint of an alternative and are sometimes less quantitative than calculating acres of land. The methods used to calculate impacts for these resources are described in each section. It is MnDOT's experience that the detailed design phase of a project often results in slight changes to a Preferred Alternative alignment or design to further reduce adverse impacts.

For several environmental areas the impacts were recalculated after the DEIS because of design modifications on the Preferred Alternative and further consideration of the other Build Alternatives. In some cases the numbers were updated on all the alternatives, but generally the update is only on the Preferred Alternative. In a few cases, none of the numbers are updated because the change would be very small compared to the magnitude of the impacts. For example, the design modifications on the Preferred Alternative will typically affect farmland on one side or the other of the existing highway, but the changes will not be significant relative to the nearly 600 acres affected.

The ten key environmental factors listed in Section 3.1.1. are consistent with those identified in project scoping. They were important factors in the decision process in selecting the Preferred Alternative

3.1.2 Organization of Subsections

The content in each major topic area is divided into three parts: Affected Environment, Environmental Consequences (i.e. impacts), and Mitigation Measures. As described in Section 2, the Build Alternatives included three highway location alternatives to the west and four to the east. This means that up to twelve combinations were possible. For purposes of clarity, the impact discussions in this FEIS typically compare the effects within each study section (first west and then east). Particular emphasis is placed on the effects of the Preferred Alternative.

3.2 Relocations and Right-of-Way

3.2.1 Affected Environment

MnDOT currently has typically 75 feet on both sides of the centerline of existing US 14 as right of way. Most of the US 14 right-of-way is located adjacent to agricultural land. US 14 also passes by residential, commercial, institutional (schools, government buildings, etc.), and industrial land uses.

Key Issues – Relocations and Right of Way

- Up to 15 relocations
 - Up to 500 acres of land will be acquired for the project
-

3.2.2 Environmental Consequences

The No Build Alternative would not require any relocations or land acquisition. All Build alternatives involve right-of-way acquisition and residential relocations. Several Build Alternatives also involved business relocations. Generally, the alternatives that use the most new alignment tend to have fewer residential relocation impacts.



3.2.2.1 Relocations

Alternatives that use the most new alignment, rather than expanding existing US 14, reduce residential or business relocation impacts while causing greater acquisition of agricultural land (Section 3.4). Table F-3-1 summarizes the number of relocations required by each of the Build Alternatives. Since publication of the Draft EIS, additional analysis has been completed to better identify potential relocations.

Relocations include those properties where the residence or business is directly beneath the footprint of the preliminary proposed highway right of way, those that fall within 85 feet of the right of way line because Nicollet County requires an 85 foot setback from state highway right of way, and those for which the cost of providing access may exceed the value of the property. During right of way acquisition individuals whose residence is inside the setback may choose not to relocate. Also, the goal will be to develop cost effective access to all residences, potentially further decreasing the numbers shown in Table F-3-1.

TABLE F-3-1
Residential & Business Relocations

West Study Section				
	Pref. Alt. W1	Alt. W2	Alt. W3	
Residential Relocations	9	5	6	
Business/Other Relocations	3	3	3	

East Study Section [bracketed values indicate quantities if the MN 99 realignment option was used]				
	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4
Residential Relocations	4	4 [5]	4 [5]	4
Business/Other Relocations	2	0	0	0

The businesses impacted by the Preferred Alternative include a MnDOT maintenance facility, two shop/warehouse spaces on either side of CR 21 east, a Hormel hog buying station, and a hog feedlot that may not have sufficient frontage to allow ongoing operations.

The Preferred Alternative will result in up to 13 residential and five commercial or industrial relocations over the 22.5 mile length of the project. Adequate housing¹ is currently available within the project area and it is anticipated that there will be adequate housing to meet any need for comparable replacement housing which the project may cause. Right of way acquisition and relocation assistance is discussed further in Section 3.2.3 Mitigation Measures.

3.2.2.2 Right-of-Way

As detailed in Table F-3-2 below, total project land acquisition requirements of the Build Alternatives ranged² from about 700 acres to almost 1000 acres, depending on the combination

¹ The US Census reported that the median value of owner-occupied homes was \$113,400 in Nicollet County and \$85,400 in Brown County in the year 2000. A search of the website, www.mnlistingsite.com/, revealed in November 2007 that there were 20-25 homes listed in the communities of New Ulm, Nicollet, and Courtland ranging from \$75,000 to \$200,000. A similar search in November 2010 of www.realtor.com identified 73 properties. The maximum number of relocations possible for this project is 16.

² With the Nicollet interchange at CR 23, the estimated total acreage for Alternatives W1 and E1 is 696 acres; the total is 986 acres for Alternatives W2 and E3, with the Nicollet interchange at MN 99.



of West and East Study Section alignments. Not surprisingly, maximum use of the existing US 14 highway alignment results in the lowest total land acquisition. That approach also results in more residential and business relocations. The Preferred Alternative for the project will result in slightly less than 700 acres of land being acquired. That is the least amount of land acquisition of any of the Build Alternative combinations.

TABLE F-3-2
Land Acquisition Requirements in Acres

West Study Section Land Acquisition Needs by Land Use Type in Acres				
Land Use Type	Pref Alt. W1	Alt. W2	Alt. W3	
Agricultural	145	300	260	
Residential	25	35	25	
Commercial and Mine Lands	16	16	14	
MN Valley Lutheran H.S.	13	0	0	
Total Land Acquisition	199	351	299	

East Study Section Land Acquisition Needs by Land Use Type in Acres [NOTE: Bracketed numbers are the impacts for the access at MN 99 option instead of at CR 23]				
	Pref Alt. E1	Alt. E2	Alt. E3	Alt. E4
Agricultural	435	480 [515]	550 [590]	565
Residential	60	60 [55]	50 [45]	40
Commercial	2	0 [0]	0 [0]	0
Total Land Acquisition	497	540 [570]	600 [635]	605

Table F-3-2 summarizes the amount of agricultural, residential, commercial/mine, and institutional lands that would need to be acquired for each of the Build Alternatives. The residential areas that are impacted include the relocations discussed above, as well as residential parcels that would be acquired in part, but do not require relocation.

3.2.3 Mitigation Measures

All right-of-way acquisition and relocation will adhere to the Uniform Relocation and Real Property Acquisition Act of 1970, as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987 and Title 49 Code of Federal Regulations, part 24. Two booklets, *Relocation: Your Rights and Benefits* and the *Guidebook for Property Owners* have been produced by MnDOT to provide information to residents and business owners or tenants whose properties are being acquired and who will be displaced by construction of the proposed project. These documents are available from the MnDOT District Office of Land Management. They were also made available at the DEIS Public Hearing.

At the time of property acquisition, MnDOT relocation advisors will be available to provide information on programs and benefits and to develop individual relocation plans. These

resources are available to all without discrimination. Residents who will be displaced are entitled to advisory services and the reimbursement of some of the costs associated with relocation. Costs eligible for reimbursement may include moving expenses, replacement housing costs, increased rental or mortgage payments, closing costs, and other valid relocation costs. The replacement dwelling to which a displaced resident relocates must be “decent, safe, and sanitary,” meaning that it must meet all of the minimum requirements established by federal and state regulations and conform to all housing and occupancy codes. If necessary, Last Resort Housing provisions will be implemented to ensure that comparable replacement housing is available to each displacee. These provisions may include increased replacement housing payments or other alternate methods based on reasonable costs.

3.3 Land Use and Visual Quality

3.3.1 Affected Environment

The majority of the land adjacent to the 22.5-mile long project corridor consists of agricultural land uses, used both for crop production and livestock farming. There are also areas of residential development; and limited commercial, industrial, and institutional development.

3.3.1.1 Planning and Zoning Overview

Farming has long been the dominant activity in the project area. The ongoing rural nature of the study area is due, in part, to zoning policies enacted by Nicollet County in 1981 to preserve agricultural land. These regulations are intended to guide development to the cities where public utilities are available. They limit residential buildings to one dwelling unit per quarter-quarter section of land and non-residential development opportunities outside municipal boundaries. Development within the unincorporated portions of the project area relies on well water and septic systems for water supply and wastewater treatment.

The Cities of Courtland and Nicollet both have comprehensive plans to guide development.

Courtland’s Future Land Use Plan Map identifies

a US 14 corridor north of the existing alignment. The Courtland bypass, which is included in all alternatives, is north of the location identified on the City’s Future Land Use Map. The City of Nicollet’s 1986 Land Use Plan does not include an expanded or realigned US 14 corridor. The area around the CR 23 intersection location is zoned industrial.

In July 2005, both communities passed resolutions endorsing the removal of the existing US 14 alignment from the list of alternatives studied in the EIS, that is, the Through Town routes (see the *Amended Scoping Decision Document* on the Project Website). In January 2008, both cities again passed resolutions in support of the DEIS and the intention to build bypasses.

Key Issues – Land Use and Visual Quality

- Conversion of ag land to highway right of way
 - Views of the highway and from the highway—especially along the bluff on the west end of the project
-

3.3.1.2 Description of Existing Land Use from West to East

The area between Front Street and the Minnesota River Bridge is the only part of the project located in the City of New Ulm, in Brown County. This area includes industrial land uses, US 14, and Minnecon Park (see Section 3.14).

The remainder of the project lies in Nicollet County. Land between the Minnesota River bridge and the intersection of US 14/MN 15/CR 21 consists primarily of floodplain. A small number of residential and light industrial/commercial uses is found at the US 14/MN 15/CR 21 intersection. This includes two businesses and a MnDOT Maintenance facility. East of CR 37, land uses include several active farms, active mining operations (including the New Ulm Quartzite Quarry and a kaolinite mine), the Shady Brook Acres/Fleck's Subdivision, and the Minnesota Valley Lutheran High School (see Exhibits F-E-1 and F-E-2 in Appendix E). Several residences are located on top of the bluff just east of MN 15.

New Ulm Quartzite Quarry is located south of US 14 on 571st Lane (see Exhibit F-E-1 in Appendix E), this quarry contains a variety of deposits, including sand, gravel, and quartzite. A representative from the quarry stated that plans are to extract rock within 300 feet of the current US 14 right-of-way. The supply of rock is expected to last 30 to 40 years. The kaolinite mine lies just to the east of the Quartzite Quarry. This facility is expected to continue to expand to the east with kaolin and aggregate operations. It is set back over 1000 feet from the existing roadway.

The clusters of residences outside of incorporated areas predate Nicollet County's current land use regulations which would not allow that density of development in rural areas. As shown on Exhibit F-3-1, several undeveloped lots are located west of the Shady Brook Acres/Fleck's Subdivision and south of the Minnesota Valley Lutheran High School that would be eligible for single-family home building permits. These undeveloped lots also predate Nicollet County's current land use regulations and have been grandfathered in.

The Minnesota Valley Lutheran High School (MVL) is located on the northwest corner of US 14 and 561st Street in Courtland Township (see Exhibit F-E-1 in Appendix E). Currently, two softball fields are located directly north of US 14 just west of 561st Avenue. MVL is in the process of implementing the "25 and Growing" building project that includes expansion of the existing buildings, new sports facilities, and additional parking.

The City of Courtland is developed on both sides of US 14. The population of this community is growing (see Section 3.6). Prior to 1990, development within Courtland largely occurred in strip fashion, extending approximately one block north and south of the highway. Since 1990, Courtland's residential growth has gravitated south of US 14 along the bluff overlooking the Minnesota River Valley. Commercial activity in Courtland is primarily located along US 14 and includes a car dealership, a gas station/convenience store, a bank, a hardware store, and two bars/restaurants. Industrial and agricultural-related activities located south of US 14 include a grain elevator, a gravel mine, a saw mill, a concrete business, and a machine shop.

Between Courtland and Nicollet, the land use is primarily agricultural. A hog feed lot and a hog buying station are located along US 14. The Swan Lake Wildlife Management Area (WMA) contains dispersed parcels of land owned and managed by the Minnesota Department of Natural Resources (DNR). Portions of the WMA exist on both sides of existing US 14.

The City of Nicollet is a growing community. Residential development in Nicollet is located mainly north of US 14, with the exception of a manufactured home park located south of the highway on the east side of the city. The majority of residential growth in the city is taking place north of MN 99, near the community's elementary school and newly constructed high school (see Exhibit F-E-3 in Appendix E). According to the City Administrator of Nicollet, future residential development is expected to occur north of US 14 and west of CR 23.

Industrial development in Nicollet is located north of MN 99 and west of MN 111, as well as south of US 14 on CR 23. The City of Nicollet's largest industrial employer, Hewitt Machine and Manufacturing manufactures docks, lifts, and other accessories. This business employs approximately 115 people and is located south of US 14, east of CR 23.

The remainder of the study area, from east of Nicollet to the project's eastern terminus at CR 6 near North Mankato, is characterized by agricultural land use.

3.3.1.3 Utilities

New Ulm Public Utilities provides electric, water, district energy, natural gas, and wastewater service to residents and businesses in New Ulm. Cable television is provided by NU-Telecom and Comcast. Outside of New Ulm, utility services are provided by the following:

- Electric service is provided by Xcel or Blue Earth-Nicollet Cooperative Electric Association (BENCO Electric);
- Local telephone, long distance, and internet service is provided by Hickory Tech;
- Cable television service is provided by Charter Communications
- Natural gas service is provided by Centerpoint Energy-Minnesco

Power transmission lines are located throughout the project area. In the West Study Section, a Great River Energy line crosses over MN 15, ending at a substation just southeast of 422nd Street. An Xcel Energy electric transmission line runs along the top-of-bluff area and crosses over MN 15. This line includes several large poles on the top-of-bluff area, as shown in the upper left photo on Exhibit F-3-4. The line continues east, then turns northeast at Heyman's Creek. Two Xcel Energy power lines are also located at the far East end of the East Study Section. Each line crosses over US 14 just north of CR 6.

The City of Nicollet's wastewater treatment ponds are located south of US 14 on the east side of CR 23. A force main carries the wastewater to the ponds.

3.3.1.4 Existing Visual Quality

Visual quality refers to what viewers like and dislike about the components that make up a particular scene. Evaluation of changes to a scene's visual quality is subjective, meaning that individual opinions can vary. For example, those living near a visual resource may have a different opinion of what they like or dislike about it than those traveling by the resource.

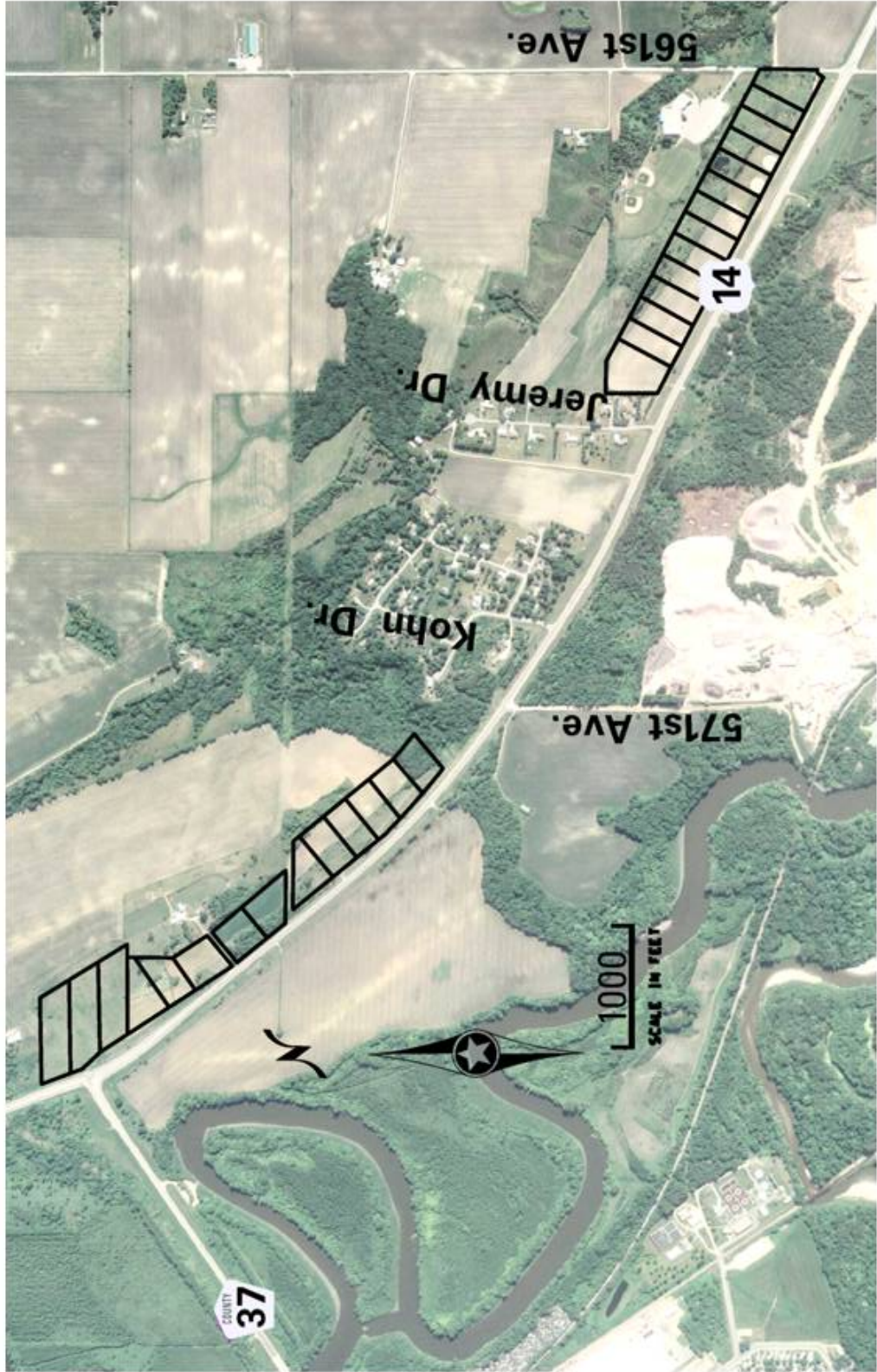


Exhibit F-3-1
 Developable Parcels

US 14 Final EIS
 New ULM to North Mankato



Existing visual qualities, as well as potential changes brought about by the proposed alternatives, were evaluated using MnDOT's visual impact assessment methodology³ Descriptions of the existing visual environment are provided below using the following evaluation criteria:

- ***Natural Visual Resources*** encompass land, water, vegetation, and animals that compose the natural environment; views including these resources are described as *harmonious* or *disharmonious*.
- ***Cultural Visual Resources*** are always constructed by people; these resources include buildings, structures, and artifacts that compose the cultural environment. The cultural environment of an area is described as *orderly* or *disorderly*.
- ***Project Coherence*** refers to what viewers like and dislike about the project environment; this is evaluated as being either *coherent* or *incoherent*.

West Study Section – The visual resources characterizing the area between New Ulm and Courtland can generally be characterized into two distinct areas the river valley and the top-of-bluff.

River Valley – Natural elements along the existing US 14 corridor between the Minnesota River bridge and CR 37 provide travelers and residents with harmonious views of a prominent bluff that extends approximately 150 feet above existing US 14, the Minnesota River, floodplain, floodplain forests, and remnant river corridors. East of CR 37, views of the natural environment are still harmonious, although less dramatic, as the landscape is primarily composed of large crop fields and scattered development.

Views from the base of the wooded bluff are most visible from US 14 just past the US 14/MN 15/CR 21 intersection through the US 14/CR 37 intersection. Exhibit F-3-2 shows the view from the US 14/MN 15/CR 21 intersection, looking towards the forested bluff. The top photo on Exhibit F-3-3 shows US 14 farther east. It provides an eastbound view of the forested bluff on the left, and the Minnesota River Valley to the right.

Cultural (or man-made) visual resources along US 14 include residential, commercial, industrial, and institutional development, as well as the Minnesota River Bridge. The bridge is not visible from most of the US 14 corridor because of the 90 degree turn at the intersection of US 14/MN 15/CR 21 and the floodplain forests. The bridge is visible from a few river bank areas in New Ulm.

The cultural or man-made environment near the west project terminus at New Ulm is somewhat disorderly as the landscape is dotted with industrial, residential, agricultural, and institutional developments. The views of cultural features become more orderly proceeding east, as views feature rural homes and bluff woodlands, which later transition to large crop fields and farmsteads.

³ The six steps that comprise MnDOT's Visual Impact Assessment methodology include: 1) identifying the affected visual resources; 2) identifying the affected people; 3) defining the existing visual quality; 4) analyzing impacts to the visual quality; 5) summarizing visual impacts by alternative; and 6) mitigating adverse visual impacts and enhancing the existing visual quality.



Aerial view of US 14/MN 15/CR 21 intersection from US 14 just east of Minnesota River bridge looking towards bluff (see ground view below)



Ground view of US 14/MN 15 intersection just east of Minnesota River bridge looking towards the bluff (also see aerial view above)



US 14 Final EIS
New Ulm to North Mankato

Exhibit F-3-2
US 14/MN 15 View Looking North towards Bluff



Visual resources in the bluff/river area are generally coherent, in that those living there and driving along existing US 14 find the experience visually appealing – even memorable or remarkable for those new to the area. The cultural environment also includes a number of historic properties such as the New Ulm Spring roadside parking area located just west of CR 37 next to the wooded bluff and

The views along the bluff near the west end of the project are striking and are enjoyed by many of those living in the area.

three historic barns, located between CR 37 and Courtland. The historic barns contribute to the overall rural/agricultural context of the area, as do the many other agricultural buildings, rural residences, and large crop farms that become prevalent east of CR 37

Top-of-Bluff – Drivers reach the top of the bluff from existing US 14 by driving up the steep hill on MN 15 or CR 21. The man-made or cultural environment on top-of-the-bluff includes rural residential and agricultural elements such as large crop farms and hobby farms. Exhibit F-3-4 provides the view from Spruce Haven Lane, a gravel road located on top of the bluff, along which several rural residences are located. Two homes eligible for the National Register of Historic Places are also located on the bluff top. The top-of-bluff area also includes natural elements such as Heyman’s Creek, floodplain, ravines, and restored prairie areas. A few residents living in the Shady Brook Acres Subdivision have views of the deep Heyman’s Creek ravine.

The views along the bluff near the west end of the project are striking and are enjoyed by many of those living in the area. Looking to the southeast, many vantage points provide panoramic views of deciduous forest, giving way to the Minnesota River Valley and floodplain, and finally the picturesque City of New Ulm, the view of which includes notable landmarks such as the Hermann Monument. Looking north, residents and drivers see expanses of agricultural lands, planted prairie fields, farmsteads, and rural homes.

The natural and cultural features in this area combine and complement each other to form harmonious, orderly, and coherent views for those living in and visiting the area. The top-of-bluff area, in particular, provides an overview of the Minnesota River Valley and New Ulm, an historic Minnesota River City. The Nicollet County zoning code helps to ensure that this area is unlikely to develop in a manner that would markedly change the visual character.

East Study Section – Views in this area are composed of large crop fields on land that varies from flat to gently rolling, rural residences, the Cities of Courtland and Nicollet, and the Swan Lake Wildlife Management Area (WMA). Because this part of the project area is more homogeneous than the West Study Section, the visual quality analysis focused on these resources, rather than on distinct geographical areas, as in for the West Study Section.

City of Courtland – those living along or traveling on US 14 through Courtland are provided with views typical of a small Midwestern farm town. This includes a mixture of residential, commercial, and institutional land uses, as described above. There are no striking natural or man-made features in Courtland; however the views are generally orderly and coherent, within the context of small, rural communities that support agricultural activities.



Existing US 14 - Next to Bluff (left) and Minnesota River Valley (right)



Existing US 169 South of St. Peter – Example of a 4-Lane Constrained Highway Design



US 14 Final EIS
New Ulm to North Mankato

Exhibit F-3-3

**Existing US 14 in Constrained Area & Example
 4-Lane Constrained Highway Design**



City of Nicollet – those living in or traveling through Nicollet experience less of a small Midwestern farm town compared to Courtland. These qualities do exist in Nicollet on the MN 99 alignment north of the US 14 corridor. US 14 through Nicollet includes views of scattered residential, commercial, and industrial land uses.

Swan Lake Wildlife Management Area (WMA) – The WMA is the most noteworthy natural feature in the east study section. However, Swan Lake itself is not visible from the highway as the flat land limits views of this expansive resource (see Section 3.14 for additional discussion of the WMA). A sign identifying the WMA is visible to drivers, as is some restored prairie and wetland vegetation.

Agricultural Areas – Landscape in the East Study Section, particularly east of Courtland, is almost entirely agricultural, with harmonious and orderly views of open land and large crop fields cultivated for corn and soybeans. Two historic properties are visible from US 14 in the East Study Section – one historic house and one barn – which add to the overall agricultural context of the area.

3.3.2 Environmental Consequences

3.3.2.1 Planning and Zoning Impacts

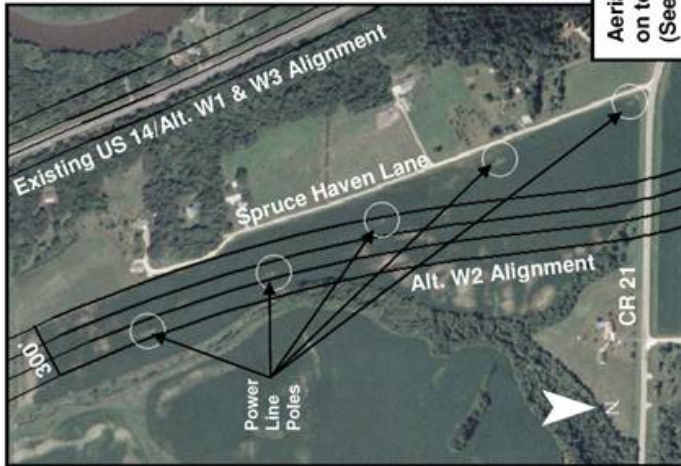
As discussed in Section 3.3.1.1, Nicollet County’s zoning ordinance guides new development towards cities and available public utilities. Because of the County’s goal to preserve agricultural land, it is anticipated that land use designations in rural Nicollet County will remain unchanged.

3.3.2.2 Land Use Impacts

The most noticeable impact of the Preferred Alternative will be the acquisition of land and structures for highway right-of-way. This will convert existing private and public lands to a transportation use. The conversions required for each build alternative are presented above, in Section 3.2, Relocations and Right-of-Way.

West Study Section: Build Alternative Land Use Impacts – The western Build Alternatives differed primarily in relation to the Minnesota River valley and the top-of-bluff area. As presented in Table F-3-1, total land acquisitions were different depending on the alternative. The top-of-bluff alignment (all of Alternative W2 and part of Alternative W3) would have affected more land than the Preferred Alternative. The impact of these alternatives on existing land use would be much greater because of splitting farms and introducing a highway in an area currently crossed only by gravel roads.

None of the Build Alternatives near the west end were anticipated to have promoted substantial additional growth in that area because of Nicollet County’s zoning policies on rural growth (see Section 3.3.1.1) and because public water and wastewater transmission is not provided north of the Minnesota River. In the area near Minnesota Valley Lutheran High School there are several undeveloped lots located west of the Shady Brook Acres/Fleck’s Subdivision and south of the Minnesota Valley Lutheran High School (see Exhibit F-3-1). Under the Preferred Alternative W1, access to the highway will be limited.



Aerial view of proposed Alt. W2 alignment on top-of-bluff near Spruce Haven Lane. (See photo below for ground view).



Ground view on top-of-bluff at Heyman's Creek. Black, dashed line shows approximate Alt. W2 alignment.



Ground view on top-of-bluff from Spruce Haven Lane looking roughly south. (See photo above for aerial view and more precise location of Alt. W2 alignment).



The Preferred Alternative W1 alignment past the New Ulm Quartzite Quarry has been shifted slightly northward to minimize impacts to the quartzite resource along US 14. The current Quarry access is located at 571st Avenue which is located too close to the CR 37 intersection to allow full access if an interchange is constructed. Based on discussions with the Quarry, it is likely that access will be shifted to the east end where 561st Avenue south will intersect US 14. The kaolinite mine will not be affected except by minor access modifications.

The Preferred Alternative W1 will impact about 13 acres of land at the Minnesota Valley Lutheran High School, including existing ball fields located adjacent to US 14. Furthermore, the school's "25 and Growing" plan shows uses, including a concessions area, a football/track facility, and parking, that would be impacted by the Preferred Alternative.

East Study Section: Build Alternative Land Use Impacts—Similar to the West Study Section, Table F-3-1 shows that total land acquisition in the east project segment varied by more than 100 acres, depending on the alternative selected. The Preferred Alternative E1 will require conversion of about 450 acres along existing US 14, including the bypasses of Courtland and Nicollet. The Preferred Alternative E1 will have more impacts on access, but will have much less affect on existing farming operations. Furthermore, the other Build Alternatives would have left in place a long segment of existing US 14 as a county road.

The Courtland Bypass, common to all Build Alternatives, including the Preferred Alternative, is a short distance north of the bypass location identified on the City of Courtland's 1999 Future Land Use Plan Map. However, the proposed bypass does not alter the City's land use plans for that area. During alternatives analysis it was determined that the location identified by the City of Courtland would have required placing the intersection on the slope of the bluff. The Courtland Bypass location of the Preferred Alternative will be located on top of the bluff. The bypass alignment also preserves existing residential, commercial, and industrial land uses along the existing US 14 alignment.

Under the Preferred Alternative, both Courtland and Nicollet will have the opportunity to establish new visions for the "old" US 14 corridor through each town.

Under any of the Build Alternatives, including the Preferred Alternative, both Courtland and Nicollet will have the opportunity to set new visions for the US 14 corridor through each town, which will no longer carry through traffic. As discussed in Section 1, the high volumes of traffic on existing US 14 through the towns would increase under the No-Build. Construction of the bypasses at these communities and the subsequent diversion of through traffic, particular heavy truck traffic, will allow the "old" highway 14 corridor to again function as "Main Street" in Courtland.

The Preferred Alternative, in contrast to Alternative E4, runs just south of existing industrial development in Nicollet. Development in the vicinity of the intersection will not encourage a sprawling land use or extensive work by the city to provide utilities to new development. There will be no impact on residential development plans because new residential development in Nicollet is planned for the northern portion of the city. The location of the new highway does,

however, constrain industrial development on the south. This particularly affects Hewitt Lifts & Roll-a-Dock's ability to expand immediately to the south of their existing facilities.

3.3.2.3 Utility Impacts

The No Build Alternative would not have impacted local utilities. All Build Alternatives, including the Preferred Alternative, required utility adjustment and relocations due to the highway construction. This was especially true at the top-of-bluff portion of Alternative W2 which would have required moving and replacing a portion of a power line and several large poles (see Exhibit F-3-4). There is also a power line with large poles located on the south side of US 14 at the far eastern end of the study corridor, where all eastern alternatives share the same alignment.

The new alignment for the Nicollet bypass will pass over the force main that carries wastewater to the city's treatment ponds. There may be a need to modify the location of the pipes and case them where they cross under the highway.

3.3.2.4 Visual Quality Impacts

All Build Alternatives, including the Preferred Alternative, will create some adverse impacts to visual quality by causing changes to the visual resources of the natural, cultural, and project environments. Impacts to specific resources by alternative are discussed below.

Field observations and photographs were used to evaluate the natural and cultural scenes experienced by residents and travelers, and how these views would be impacted by Build Alternatives. The evaluation criteria used to describe these impacts are from MnDOT's visual impact assessment methodology, and are summarized below.

- ***Scale of Impact*** – refers to physical change to visual resources; described as major or minor.
- ***Extent of Impact*** – describes the number of viewers affected by changes that would be brought about by the proposed alternatives; described as localized or widespread.
- ***Value of Impact*** – describes how individuals define impacts to visual resources; defined as beneficial, adverse, or neutral. Value of impact may vary between individuals, for example, those living near a resource may have a different opinion of an impact than those driving by a resource.

A related factor in modern highway design practice is whether the project can be built in a manner that best fits the area's context. These goals are often called context sensitive design or context sensitive solutions (CSD/CSS). While these methods are evolving, the basic goal of context sensitivity is to identify the most appropriate solutions taking into account the full range of effects of the project. Consideration is given to a full range of inputs, including: satisfaction of purpose and need, awareness of community values, and satisfaction for stakeholders. Stakeholders include transportation agencies, resource agencies, local governments, and the public. The process of developing a project in a context sensitive manner generally includes the steps which are being taken to develop and evaluate this US 14 project. This includes an understanding of transportation needs, environmental features, and

stakeholder objectives.⁴ Context sensitivity is also often expressed with reference to the visual environment and so it is reasonable to discuss it in this section of the FEIS. However, visual impact is not the only concern in good design. For this project, a good fit to context is probably best expressed in terms of how project transportation solutions suit the environment overall, considering the US 14 corridor values of agriculture, small communities, the bluff-river environment near New Ulm, and the area's many other natural and cultural features.

No Build Alternative – This alternative would have resulted in only minor changes to the natural and cultural environments. Overall, views would have remained unchanged, with the exception of increased traffic and congestion along the corridor. Increasing traffic volumes and congestion would adversely impact visual quality in the communities of Courtland and Nicollet. As discussed earlier, this no-build future is in contrast to the build alternatives' potential to greatly reduce traffic through the towns, along with the opportunity to visually enhance the bypassed "old" segments of US 14.

The top-of-bluff alternatives—all of W2 and part of W3— would have resulted in the most major and adverse impacts to visual quality and context in the West Study Section.

West Study Section – The top-of-bluff alternatives – all of Alternative W2 and part of Alternative W3 – would have resulted in the most major and adverse impacts to visual quality and context in the West Study Section. The Preferred Alternative largely maintains the visual quality currently experienced along US 14. Specific visual quality impacts are described below, for the west study section.

Minnesota River Crossing – All western Build Alternatives included expansion of the current bridge from two to four lanes, and raising the bridge elevation to provide greater clearance for the floodway below the bridge. The four-lane bridge will match the elevation of US 14 at Front Street. Since the bridge will match the elevation of the existing roadway, drivers and residents would still observe the floodplain forests along the riverbanks.

River Valley – The Preferred Alternative will result in minor changes to the natural and cultural environments currently experienced by those traveling along US 14. Residents living along US 14 would likely view the highway expansion as an adverse visual impact. However, this perception would be localized to these individuals. Since changes to the visual environment would be minor, it is anticipated that drivers would find these changes neutral.

Under the Preferred Alternative proposed design, the constrained four-lane cross section (see Exhibit F-2-8) proposed between MN 15 and CR 37 will substantially minimize visual impacts of the Preferred Alternative W1 because it will leave the bluff and floodplain intact. The top photo in Exhibit F-3-3 shows a typical, current view from the US 14 corridor in this area. The photo at the bottom of Exhibit F-3-3 shows US 169 south of St. Peter, which was built using a constrained, four-lane cross section located between a river and a bluff. If a high concrete median barrier is used between MN 15 and CR 37, however, travelers will experience a more degraded visual quality.

⁴ While there are a number of CSD/CSS practice references, two of the most noteworthy publications are: *Flexibility in Highway Design* (FHWA, 1998) and *NCHRP Report 480—A Guide to Best Practices for achieving Context Sensitive Solutions* (Transportation Research Board, 2002).

The Preferred Alternative's two possible interchanges along the bluff-river area would change the existing visual environment by replacing the current stop-controlled intersection with a larger interchange footprint. The Preferred Alternative W1 continues along the existing US 14 alignment east of CR 37. The property acquired for construction, and the expanded highway would result in minor changes to the existing built environment.

The Preferred Alternative W1, passes by three historic properties. One site is the New Ulm Roadside Parking Area. Views of the wall from the roadway will be changed slightly for westbound traffic, much more so for eastbound, especially if concrete median barrier is used. Westbound traffic will still be able to access the site. Other historic properties are barns. These structures, which are on private property, will remain visible from the roadway.

The context of the river valley already conveys a sense of the transport of goods and people. This was originally accomplished by means of the river itself. Later the railroad and the existing highway perpetuated that context. An expanded highway fits within the mixed land uses prevalent in the river valley. The constrained cross section of the Preferred Alternative will also minimize change in highway design context, as it provides a transitional segment from the New Ulm urban street to the more wide-open rural cross section proposed for US 14 east of the river-bluff area.

Top-of-Bluff – Just east of existing MN 15, the top-of-bluff alignment would have resulted in dramatic and widespread visual and contextual changes to the natural and cultural environment in the West Study Section. Drivers leaving New Ulm on the Alternative W2 alignment would have climbed the bluff near MN 15. This is shown in the top photograph on Exhibit F-3-2. To obtain acceptable grades, substantial alterations in the bluff would have been required. A fill section of approximately 35 feet would have been required. A bluff cut would have also been required. A cut section of approximately 65 feet deep, and 533 feet wide would have been required for an acceptable five percent grade and to accommodate a possible interchange at the top of the bluff. These features would have dramatically reshaped and opened the bluff area, and thus changed views of the bluff and from the bluff.

As described above, some rural residential properties would have been acquired to accommodate the Alternative W2 alignment at the west end of the bluff, including two homes along Windhaven Lane. Residents remaining on the bluff top after construction, those along Windhaven Lane and Spruce Haven Lane, would have had adversely impacted views to the north and west of their properties. The current view of a harmonious rural-residential landscape would have been replaced by a four-lane highway and interchange. It is notable that one home along Spruce Haven Lane is eligible for the National Register for Historic Places. Alternative W2 would have effectively isolated the homes remaining along Windhaven Lane and Spruce Haven Lane between the bluff and the highway; thereby cutting these residences off from the context of the larger rural environment.

Alternative W2 would have re-routed MN 15 along 577th Avenue, which would have adversely affected the visual quality of two homes located along 577th Avenue – one of which is eligible for the National Register of Historic Places. The visual quality impact to the homes along existing 577th Avenue would not have been as severe as the impact to other top-of-bluff residences because existing views of a gravel road would have been replaced by a two lane state highway and local street, rather than a four-lane highway and interchange.

The top-of-bluff alignment would likely have been viewed as neutral to beneficial by those traveling along a realigned US 14 and MN 15. Those traveling along US 14 could potentially have experienced panoramic views of the river valley and New Ulm as they passed CR 37 or descended the bluff at the west end of the corridor⁵.

Moving to the east, views of the ravine associated with Heyman's Creek currently enjoyed by some residents of the Shady Brook Acres subdivision would have been adversely impacted by Alternative W2, which would have resulted in a substantial fill being placed into the ravine and the construction of a long bridge.

Finally, the top-of-bluff alignment, as it angled southeast to tie into the northern bypass of Courtland, would have adversely impacted the views of the agricultural environment, including views from two properties eligible for the National Register of Historic Places.

The context of the bluff top is that of a rural neighborhood and farms set against the top of the bluff with ravines cutting back into them. The introduction of a four-lane highway into this setting would be generally counter to the context.

East Study Section –The Preferred Alternative bypasses both Courtland and Nicollet. Removing traffic from these communities creates a dramatic visual and contextual change, both for residents and drivers. Other changes to specific visual resources are discussed in detail below.

Cities of Courtland and Nicollet –The bypasses of Courtland and Nicollet will provide drivers with a panoramic view of the agricultural landscape common throughout the area. US 14 travelers will no longer observe the “small town” visual experience currently provided by US 14, particularly through Courtland. The Preferred Alternative E1 approaches the southern edge of Nicollet, where the new highway will become part of the City's character. Alternative E4's far south location would offer a more rural experience to drivers who would no longer see Nicollet.

The Preferred Alternative will result in substantially reduced traffic volumes through the cities. This presents the opportunity to visually enhance local community functions along the “old” segments of US 14, which will function as a “Main Street.” Local residents will be the major beneficiaries. This change is considered a fitting shift in context, as reduced traffic volumes, especially through traffic and trucks are more compatible with the communities.

Swan Lake Wildlife Management Area – The Preferred Alternative E1 will have a minimal visual impact on the Swan Lake WMA landscape. The existing roadway has been adjacent to the WMA for many years, with US 14 predating the Swan Lake Wildlife Management Area. The Preferred Alternative will continue to provide a view of the WMA similar to the existing condition.

Agricultural Areas – The Preferred Alternative E1, and all other eastern Build Alternatives would travel through farmland currently used for row crops. As shown on see Exhibit F-E-3 in Appendix E, the Preferred Alternative most closely follows the existing US 14 alignment, except

⁵ The DEIS stated that “Depending on how the highway would be built, those traveling along US 14 could potentially experience panoramic views of the river valley and New Ulm currently enjoyed by residents of this area because the corridor would be located on a bluff approximately 150 feet above the existing highway.” A commenter correctly pointed out that the ground slopes down on both sides of the bluff top and trees would block the view.

at the bypasses of Courtland and Nicollet. Alternatives E3 and E4 used the existing US 14 alignment only minimally. They would have created the greatest visual impact because the





Existing Two-Lane Rural Section of US 14



four-lane roadway would have interrupted the visual pattern of rural, agricultural activities. Alternative E4 would have provided the most dramatic visual change with the far south bypass of Nicollet. Exhibit F-3-5 provides a view of the current two-lane US 14 along a rural portion of the study area. The bottom photo in Exhibit F-3-5 provides a view from a rural, four-lane, divided highway. As demonstrated in this photo, there is little visual difference between a two-lane and four-lane rural highway. The primary difference between alternatives was whether or not an alternative used existing US 14 alignment or diverged into agricultural areas.

3.3.3 Mitigation Measures

To the extent practicable, the project will avoid diminishing or obstructing desirable views. Visual Impacts that cannot be avoided will be reduced using appropriate methods, e.g. landscaping treatments, and plantings. The City of Nicollet has requested landscaped screening for their water treatment ponds. MnDOT will work with the cities to develop landscaping plans and explore partnering for funding prior to construction. During the detailed design phase of this project MnDOT will coordinate with potentially affected utilities, to identify any required adjustments or relocations.

3.4 Agricultural Resources and Soils

3.4.1 Affected Environment

3.4.1.1 Agricultural Resources

Agriculture is the predominant land use within the study area, particularly within the East Study Section. Table F-3-3 summarizes the crops grown in Nicollet and Brown Counties and the acreage devoted to each crop. Corn for grain and soybeans are the predominant crops, which together accounted for more than 90 percent of the harvested cropland in 2002.

TABLE F-3-3
2002 Harvested Cropland Statistics for Brown and Nicollet Counties

	Brown County		Nicollet County	
	Acreage	Percent of Total	Acreage	Percent of Total
Corn for grain	133,676	46%	107,835	48%
Soybeans	129,966	44%	101,194	45%
Forage (hay)	11,182	3.8%	5,834	3%
Vegetables	11,221	3.8%	4,544	2%
Wheat for grain	2,858	1%	918	0.4%
Oats & Barley for grain	1,921	0.7%	1,625	0.7%
Other	2,043	0.7%	2,086	0.9%
TOTAL Harvested Cropland¹	292,867	100%	224,036	100%

¹In 2002, there were 19,398,309 acres of harvested cropland in Minnesota. Brown County's cropland accounts for 1.5 percent of this total; Nicollet county's cropland accounts for 1.1 percent.

Source: USDA National Agricultural Statistics Service; 2002 Census of Agriculture



Table F-3-4 provides the market value of crops and livestock sold in Brown and Nicollet Counties in 2002. Hogs and pigs represent more than half of the dollar value of livestock in both counties. In 2007, the dollar value from sales of hogs and pigs was over \$61 million in Brown County and over \$92 million in Nicollet County (USDA National Agricultural Statistics Service, 2007 Census of Agriculture – County Data).

TABLE F-3-4
Value of Agricultural Products Sold in 2007

	Brown County	Nicollet County
Crops	\$124,454,000	\$95,936,000
Livestock, Poultry & Their Products	\$131,926,000	\$140,827,000
TOTAL	\$256,380,000	\$236,763,000

Source: USDA National Agricultural Statistics Service; 2007 Census of Agriculture

3.4.1.2 Soils and Prime Farmland

The topography and soil types in the West and East Study Section are markedly distinct. West of Courtland, the topography includes wooded bluffs along the Minnesota River valley. East of Courtland, the topography is generally flat and almost all of the land is agricultural.

The area west of Courtland contains sandy, loamy, and clayey soil formations on bluffs and terraces above the Minnesota River that range in slope from 2 to 70 percent. Soils on the river bluff terraces and floodplain were formed from post-glacial sandy and gravelly sediments derived primarily from the surrounding uplands.

East of Courtland, nearly all of the land lies within the Canisteo-Webster-Nicollet and Cordova-Lester-Le Sueur soil associations, which are generally level and very poorly to moderately well drained. Because of the poor drainage capacity of these soils, much of the farmland in this area is either ditched, tile-drained, or both.

Key Issues—Agricultural Resources and Soils:

- *The impacts of proposed alternatives on farmlands, including land acquisition, parcel severances, and effects on farm field access*
- *The project's effects on prime agricultural land*

Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. In order to be designated as prime farmland, these lands must be zoned for agricultural use. Generally, with proper soil management, prime farmland is highly productive.

The Soil Survey for Nicollet County states that 74 percent of Nicollet County is considered prime farmland (NRCS 1994). A considerable amount of Nicollet County's prime farmland is located in the Canisteo-Webster-Nicollet soil association east of Courtland. In the West Study Section, prime farmland is limited to loams in the Dickinson, Plainfield, Terril and Wadena soil series on slopes less than six percent.

3.4.1.3 Farmland Drainage and Field Access

Although covered more fully in Section 3.7 Surface Water, Water Quality, Erosion Control, and Slope Stability, farmland drainage is a serious concern for farmers. Well drained soils have greater

microbial activity, improved tilth, and warm up more quickly in the spring. Water standing in fields for too long leads to crop damage. Drainage from the field occurs as overland flow when minor basins fill up during rain events. Water that infiltrates into the soil is may be captured by drain tile. Most fields in the project area have been tiled. Water then collects in drainage ways that flow into county ditch systems and natural streams.

Accesses onto US 14 for farm machinery are located throughout the project area at irregular intervals. They are most frequently used during planting and harvest seasons.

3.4.2 Environmental Consequences

Agricultural impacts resulting from roadway construction, especially on new alignment away from an existing highway location, include farm severances and farm and field access issues. In some cases, such impacts may make a parcel of land infeasible for agricultural production or unprofitable for affected farmers. Agricultural severances occur when a roadway divides an agricultural parcel into two or more smaller parcels. Severances can negatively impact agricultural production when the severed parcels become too small to be efficiently farmed, are of an irregular shape that makes cultivation difficult, or are separated from adjacent farmed parcels. To the extent possible, Build Alternatives in the East Study Section were developed to follow quarter-quarter section lines to be consistent with typical property ownership boundaries and to minimize severance impacts. Table F-3-5 summarizes prime farmland and agricultural parcel impacts by each of the Build Alternatives. The impacts in Table F-3-5 include those of connecting roads on new alignment.

TABLE F-3-5
Estimated Agricultural Land Acquisition, Prime Farmland Impacts, Agricultural Parcels Impacts, and Severances by Build Alternative

Alternative	Agricultural Land Acquisition (Acres)	Prime Farmland Impacts (acres)¹	Agricultural Parcels Impacted	Agricultural Parcels Impacted by Severance
Pref Alt W1	145	80	12	1
Alt W2	300	195	24	12
Alt W3	260	125	18	15
Pref Alt E1	435	280	27	17
Alt E2	480 [515]	300 [280]	30 [36]	17 [22]
Alt E3	550 [590]	360 [350]	39 [46]	24 [18]
Alt E4	565	415	50	25

¹ The acreage of prime farmland impacts shown in Table F-3-6 is lower than the total acres of prime and unique farmland reported on the AD-1006 Farmland Conversion Impact Rating Sheets (included at the end of Section 4, Comments and Coordination. This is because the figures include only acres that are currently zoned for agricultural use and do not include any area within the city limits of Courtland or Nicollet, or any of the area already within existing MnDOT right-of-way. Five agricultural parcels are severed by the common alignment (north of Courtland) between the East and West segments of the project area.

Notes: [Bracketed numbers are the impacts for the optional access at MN 99 instead of at CR 23.] This option was not selected. These numbers have not been updated since publication of the DEIS.

For this project, the Preferred Alternative, W1 in the west and E1 in the east, results in the least agricultural impacts. This is true in every instance, i.e. number of acres acquired, prime farmland impacted, number of parcels impacted, and the number of parcels severed as a result of the project.

A comparison of estimated prime farmland impacts (Table F-3-5) to total project land acquisition requirements (Table F-3-2) indicates that about 40 to 70 percent of the land needed for any of the Build Alternatives is prime farmland. When non-prime farmland is added, this number changes to about 75 to 95 percent of the land needed for the project currently being in agricultural use.

USDA Farmland Conversion Impact Rating forms (Form AD-1006) were completed for all Build Alternatives as required under the US Farmland Protection Policy Act (FPPA) because this project is anticipated to receive federal funding or other federal agency approvals and prime farmland will be converted. Forms AD-1006 for this project can be found in Section 4 of this FEIS, Comments and Coordination (note that the acreages of impacts are inaccurate in the forms).

Modifications to drainage systems, natural and manmade, impact how well drained the soil may be. Construction of additional travel lanes, city bypasses, and modifications to existing grades may affect where water flows. Large culvert crossings at county ditches (where the flow lines are generally specified by county ordinance) will be added or modified. There may also be some realignment of ditches to reduce skewed crossings or eliminate flow direction changes immediately adjacent to the highway. Field drain tiles will be encountered where construction occurs in currently farmed fields. More details on county ditches and natural streams are provided in Section 3.7 Surface Water, Water Quality, Erosion Control, and Slope Stability.

In general, field access will not be allowed directly off the highway. Wherever practicable, access will be rerouted to lower volume county and township roads in order to improve safety. This will ensure that farm machinery is accessing the highway at intersections that have adequate sight distance. Also, highway drivers are more watchful for traffic at clearly defined intersections. In some cases lands may be purchased (in fee or by permanent easement) to provide access across one property to another. In other cases right turn only access may be allowed to fields if the impacts of providing access another way are extensive. This would require farm machinery to make U-turns at adjacent intersections. Providing left turn lanes at those intersections will allow the slow moving machinery to stay out of the main traffic flow as much as possible.

3.4.3 Mitigation Measures

MnDOT will comply with all applicable laws concerning just compensation for land acquisition, including the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (42 USC 4601). Measures will include use of a qualified appraiser to perform an assessment to determine fair market value. Damages will be paid, as determined by the appraiser for triangulated and severed fields. Small remnants that cannot be farmed economically will be purchased. Fields that currently have access from the highway will be provided access off of local roads whenever possible. Otherwise, the property may be purchased completely or limited access provided from the highway.

Culvert crossings will be provided at natural low areas to prevent the highway from impounding water. Low areas may be purchased for water quality ponds. Modification of county ditches requires a hearing on the proposed changes and the approval of the county. MnDOT will follow

these requirements. Drain tiles encountered during construction will be perpetuated as part of the construction contract. Typically system tile is rerouted to a limited number of larger road crossings to cost effectively provide high quality crossings. MnDOT has historically worked with landowners to coordinate tile relocations with any improvements the owner wants to make.

Field accesses constructed by MnDOT would normally be twenty feet wide, built half a foot up from the existing ground and surfaced with gravel. Changes to specific accesses will be identified closer to the time of construction and negotiated during right of way acquisition.

3.5 Transportation

3.5.1 Affected Environment

3.5.1.1 Highways

As discussed in Section 1.1, US 14 is a major east-west highway in southern Minnesota that is part of the state's Trunk Highway system. This corridor connects New Ulm to Mankato – both growing regional trade centers within MnDOT's Interregional Corridor (IRC) system and points outside the region. It serves daily commuters and commercial or truck traffic, and also provides access to homes, farms, and businesses. As discussed in Section 1.4.4.3, the existing US 14 corridor contains more accesses per mile than the statewide average for similar highways, as well as more accesses per mile than what is recommended by IRC guidelines. Many of the existing access points along US 14 are private driveways.

Key Issues—Transportation

- Safety at the intersection of US 14/MN 15/CR 21
 - Bluff and river constraints on highway width
 - Access
-

The local and supporting road system along US 14 is made up of frontage roads, parallel minor arterial/collector roads, and intersecting roads. Section 1.4 discusses the identified deficiencies along US 14 which include issues relating to safety, capacity, and highway and bridge design deficiencies. Crash problems exist at several intersections where US 14 intersects other highways, including MN 15/CR 21, CR 37, MN 99, and MN 111/CR 23. The segment of US 14 between MN 15 and CR 37 has the highest crash rate of the entire corridor. The intersection of US 14/MN 15/CR 21 has the highest intersection crash rate on the corridor. As documented in Section 1.4.3.1, the traffic volumes in these areas are increasing, and are expected to continue increasing, which would be expected to further worsen the crash problems.

As noted in Section 1.4.3.2, trucks make up about 13 percent of all traffic on US 14 between New Ulm and Mankato. In addition to truck traffic on US 14, MN 111 and MN 99 also carry large volumes of truck traffic through Nicollet. Much of this truck traffic is either bound for or coming from US 14.

3.5.1.2 Mass Transit

The Brown County Heartland Express provides dial-a-ride transit services between 7:15 am and 5:00 p.m. on weekdays, and between 8:00 a.m. and 12:00 p.m. on Sundays to residents of Brown County, including New Ulm. The remainder of the study area is not served by bus service.



3.5.1.3 Air Service

The New Ulm Municipal Airport is located adjacent to US 14 west of the project area, near the west city limits of New Ulm, outside the project area. The airport provides on demand charter service. The Mertesdorf Airport (aka Hay Shakers) is a private airstrip located north of US 14 on 471st Lane.

3.5.1.4 Rail Service

A Dakota, Minnesota and Eastern (DM&E) railroad track runs parallel to Front Street at the west end of the project limits in New Ulm. The DM&E is a subsidiary operating company of CP Rail. The railroad tracks continue eastward, generally remaining south of, and following the Minnesota River in Brown County through the remainder of the study area. This railroad track is part of the DM&E mainline that extends from Rapid City, South Dakota, to Winona, Minnesota. Rail service consists of transporting freight. Passenger service is not provided.

3.5.1.5 Trails and Pedestrians

The US 14 project corridor is not part of any designated bicycle or hiking trail. Pedestrian and bike traffic within the project corridor is found mainly in the Cities of Courtland and Nicollet which have residences, businesses, recreational, and public facilities located on both sides of the highway. A trail in the City of New Ulm crosses under US 14 along Front Street.

Routes paralleling US 14 to the north and south are more conducive to bike traffic given lower traffic volumes. These include CR 5 to the north and CR 25 and MN 68 to the south (see Exhibit F-2-1). MN 68, which roughly parallels US 14 on the south side of the Minnesota River between Mankato and New Ulm, has lower traffic volumes and sufficient paved shoulder widths to accommodate bicycle travel. In addition, MN 68 tends to be a more scenic corridor.

The Nicollet County Trail Association's 2000 Snowmobile Map shows a grant-in-aid funded snowmobile trail in the project area. These trails are generally located on private property but receive financial support from the Minnesota Department of Natural Resources (DNR). The trail runs south of US 14 between CR 37 to CR 25. The trail crosses US 14 at CR 25 and remains north of US 14 through the City of Nicollet. Designated parking areas are at 547th Lane west of Courtland, and 471st Lane west of Nicollet. The City of Nicollet is designated as a trail hub.

3.5.2 Environmental Consequences

3.5.2.1 Safety, Traffic Operations, and Access Management Impacts

No Build Alternative The No Build Alternative would perpetuate a two-lane, undivided highway. Undivided highways increase the probability of head-on, opposite direction sideswipe, and passing-related crashes.

Some of the existing at-grade intersections have geometric deficiencies, such as intersection skew which is a known contributing factor to intersection crashes. Intersection skew would not be reduced or removed under the No Build Alternative.

Another crash type to consider is single vehicle run-off-the-road crashes. From 2001 to 2005, single vehicle run-off-the-road crashes resulted in 1097 fatal crashes in Minnesota—41 percent

of the State's fatal crashes (source: Minnesota Department of Public Safety Crash Records Database). The No Build Alternative would not have improved the safety of the roadside by providing wider clear recovery areas and flatter slopes. Such improvements provide motorists who have left the roadway a better chance of regaining control of their vehicles or reducing the severity of a crash.

Fatal and serious injury crashes are a top priority for MnDOT and the State of Minnesota. The No Build Alternative would not have provided an adequate level of safety for this type of transportation facility and the projected traffic volumes.

The No-Build Alternative would not address the increasing traffic volumes expected over the next 25 years. Currently, US 14 operates at either Level of Service (LOS) C or D (see Section 1.4.3.1). Under the No Build Alternative, US 14 would operate at LOS E by 2025. LOS D or E is sometimes considered acceptable in urban or suburban settings where the costs and impacts of providing additional capacity are severe. Some traffic congestion is accepted in these areas as a tradeoff to avoid other impacts. Given the rural and small town nature of the study area, a higher level of service can reasonably be expected and accomplished. The No Build Alternative would not have provided adequate capacity for efficient traffic operations.

The No Build Alternative would not have allowed for the degree of access control which will be possible with the Preferred Alternative. The No-Build would have maintained existing traffic patterns between the local road network and the US 14 corridor, including conflict points between through traffic and traffic entering or crossing US 14. In addition to the existing at-grade intersections, the potential for adding access points along the highway would also exist. One example is the Shady Brook Acres/Flecks Subdivision near the west end of the study area. As described in Section 3.3.1.2, and shown on Exhibit F-3-1, this area includes several undeveloped, subdivided parcels east of CR 37 and north of US 14. These parcels were platted prior to the adoption of Nicollet County's current zoning code.

Build Alternatives The Preferred Alternative, as well as the other Build Alternatives, would improve safety and traffic operations, both for through and local traffic. Expanding US 14 to a four-lane, divided highway adds sufficient capacity to accommodate future traffic volumes beyond the next 25 years.

Because opposing traffic flows will be separated, the divided highway would provide safety benefits over the existing, undivided highway – particularly fewer head-on, opposite direction sideswipe, and passing-related crashes. The Build Alternatives will also provide improved clear recovery areas and a safer roadside, reducing the number and severity of run-off-the-road crashes. Skewed intersections will be removed or realigned to improve intersection safety. Consolidating driveways will decrease the number of at-grade access points which will reduce crashes. Bypasses around Courtland and Nicollet will decrease conflicts between local and through traffic. Providing improved intersections including possible interchanges at high traffic volume intersections used to access cities along the route will further have a significant, positive impact on safety.

Under the Preferred Alternative, a number of local roads that currently have full access to US 14 will have reduced access in the future. This will cause additional travel for people that would otherwise use these routes. The affected roads include:

- CR 21 – the current plan for the MN 15 interchange is to accommodate full access for CR 21 east and west. However, if they cannot be safely accommodated due to steep grades, access to these roads will be rerouted. The west leg of CR 21 would get access from Nicollet CR 35 (Brown CR 13) on the west. The east leg of CR 21 would get access from MN 15 on top of the hill with CR 21 rerouted along 422nd Street and 577th Avenue. This would result in one half mile more travel for the east and a variable amount of additional travel for the west depending on the destination.
- 446th Street – the current access to the highway is too steep and has no landing at the approach. The plan is to connect it with CR 37, but if detailed design indicates that the cuts will be so deep that the cost is excessive or the maintainability of the road is in question, the road may be cut off which would result in up to four miles of extra travel.
- 571st Avenue – the distance from this intersection to the CR 37 intersection is a concern because of limited space to construct a median acceleration lane to accommodate loaded trucks making left turns onto the highway and weaving over to the off ramp. The plan is that it will become a right-in right-out access which results in up to 1.8 miles of additional travel to access the road.
- 561st Avenue South – to improve safety at the Minnesota Valley Lutheran High School access on the north, the south leg of the intersection will be rerouted to the east. The road would have full access so impacts to trips would potentially balance.
- Access to Courtland – access will be predominately through the CR 24 intersection proposed north of Courtland. There will not be full access on the east or west. The most affected individual will have up to 2.7 miles of additional travel.
- 531st Avenue – this road will no longer access US 14.
- Access to Nicollet – access will be predominately through the CR 23 intersection proposed south of Nicollet. There will not be full access on the east or west. Eastbound traffic that currently travels straight through Nicollet on MN 99 will now need to travel southeast on US 14, make a left onto CR 23, then make a right at the intersection of MN 99 and MN 111 resulting in nearly one mile more of travel and an additional turn.
- 471st Lane – access at this location would allow short circuiting the improved intersection at CR 23. An overpass was considered, but is too expensive for the value it provides. Only a right-in right-out on the south will be allowed.
- Township 179 and 478th Street – these roads will have less direct access because they will be consolidated.
- 490th Street – the east leg of this intersection will likely not be perpetuated because the amount of land it would take to remove the skew would be out of proportion to the limited number of people needing to use the road.
- CR 25 – the east leg of this road may no longer access US 14 because it provides a redundant access with CR 17 and would require more land impacts to remove the skew.



- CR 17 – the north and south legs will not meet, but will intersect US 14 as offset T-intersections. Because there is very limited demand for through movements there, this will be a minor impact and the offset intersections will be safer.
- 510th Street – this road will no longer access US 14 because there is limited need for it and it will eliminate a county ditch crossing.

Exhibits F-E-1 through F-E-4 in Appendix E and Section 2.4.3 describe how local roadways are anticipated to connect to the Preferred Alternative.

Private access to the highway will also be impacted. To the extent that it is reasonable, driveways and field entrances will be rerouted to adjacent local roads or consolidated with frontage roads to limit the number of accesses or provided with right-in right-out access only. Exceptions will be made only with excessively long travel distances or large volumes of traffic accessing a site. This will result in additional travel and increased driveway maintenance. Details of driveway and field entrance access won't be worked out until the right of way acquisition process begins, approximately two years before construction of a given segment. If necessary, additional environmental review will be conducted prior to acquiring right of way for changed access locations.

Portions of the existing alignment that are not used when the road is reconstructed (i.e., the segments through Courtland and Nicollet) will be turned back to Nicollet County for inclusion in their system or for them to turn over to the cities or townships. In this process the turned back portion is normally repaired using state transportation funding and then the ongoing maintenance would be the responsibility of the local jurisdiction. The Preferred Alternative, using the existing alignment, will result in the least amount of highway being turned back. Under Alternative W2, most of the existing US 14 corridor would have been turned back to Nicollet County because Alternative W2 is almost entirely on new alignment. Alternative W3, would have turned back the portion of US 14 that would pose the greatest access challenges, between CR 37 and Courtland, where the highway passes by the New Ulm Quartzite Quarry, the Minnesota Valley Lutheran High School, a subdivision, and rural residences. Alternatives E2, E3, and E4 would have turned back increasingly long segments of US 14.

West Study Section

All of the alternatives have the highway crossing the Minnesota River floodplain at New Ulm. The current roadway elevation from the Minnesota River bridge to east of the MN 15 intersection is below the 100 year flood elevation as published in the 2009 version of the Brown County Flood Map. The road elevation will be raised above that elevation between the bridge and the MN 15 intersection. MnDOT is planning to also raise the road above the 100 year flood elevation to the east of MN 15. This will result in impacts to an additional 1.5 acres of floodplain and 0.4 acres of wetland (both of which are accounted for in the appropriate sections).

Between the Minnesota River Bridge and CR 37, the Preferred Alternative will employ a “constrained” cross section (see Section 2.4.2). A constrained cross section will reduce impacts to natural resources and fit within the topographical constraints imposed by the bluffs and the river valley. The constrained cross section will include a narrow median (i.e. ten feet or less) and will have median barrier to reduce the risk of cross median crashes. It may be necessary to use roadside guardrail in some locations.

The interchange at US 14/MN15/CR21 will be built to improve safety at this difficult location where MN 15 meets US 14 at the base of the bluff. While the design has not been finalized, there is a preferred concept and the approximate size of the interchange footprint has been determined. The criteria informing the design include the following:

- Through traffic on MN 15 should have no right angle crossings with through traffic on US 14;
- Through traffic on MN 15 northbound will not stop as they are climbing out of the valley;
- Ideally, CR 21 to the west would be fully accessible;
- If possible and cost effective, CR 21 to the east should be fully accessible (though there exists the possibility of connecting CR 21 to MN 15 on top of the bluff);
- Stopping US 14 traffic, especially westbound, is acceptable because it is near to a reduced speed area;
- The design must be reasonably low cost to ensure it can be built;
- The design must minimize impacts to wetlands, floodplain, and the bluff.

As shown in Exhibit F-2-2, in the current interchange concept, as the US 14 lanes continue eastbound, the two lanes will diverge, with one lane for traffic headed to MN 15, the other for traffic to continue on US 14 or destined for County Road 21, via a ramp and roundabout. Traffic may access or exit MN 15 on ramps, terminating in roundabouts. The design will to allow traffic on MN 15 going to or coming from New Ulm to travel through the interchange without stopping or slowing. This design is anticipated to reduce operational and safety problems posed by the 5% grade of MN 15 east of the present intersection. This grade will likely remain unchanged. Traffic on CR 21 will have full access on both sides of the interchange through two roundabouts. Traffic headed west on US 14 will travel through two roundabouts as it passes through the intersection. Due to the preliminary nature of the interchange concept described in this FEIS, it is possible that details of the intersection may change before construction. It is the goal of MnDOT to provide access to MN 15 and CR 21 at this interchange without substantial realignment.

The New Ulm Quartzite Quarry operates adjacent to US 14. The Quarry has a permit to close highway traffic for short periods of time in order to safely conduct blasting. They have not yet closed the road for blasting, but it is anticipated that as the operation moves closer to the highway that occasional, temporary road closures may be necessary. The Quarry operation requires blasting as often as once in six days. MnDOT will encourage the Quarry to plan these closures for low traffic volume times.

Access to the Minnesota Valley Lutheran High School from US 14 is currently provided via an at-grade intersection of 561st Avenue with US 14. Under the Preferred Alternative, that at-grade intersection will be improved (see Exhibit F-2-4) to separate turn movements so that drivers can concentrate on conflicts from one direction at a time. Also,

An intersection design that reduces conflicts and will improve safety is proposed for the access to the Minnesota Valley Lutheran High School at 561st Avenue.

acceleration and deceleration lanes will reduce speed differences within the mainline lanes. While the presence of a school along a major highway is always a concern, these measures will provide safe access for the students.

The Preferred Alternative will also provide direct, at-grade access for the heavy truck traffic movements associated with the mining operations east of CR 37. MnDOT is proposing consolidating the access to the Quartzite Quarry and clay mines at one location east of 561st Avenue to reduce conflicts with the Minnesota Valley Lutheran High School access and to prevent slow moving trucks leaving New Ulm Quartzite Quarry from weaving at the CR 37 interchange ramps. Alternatives W2 and W3 would have required these trucks to travel some distance along the existing US 14 alignment and then access the new US 14 expressway at nearby interchanges or intersections. While Alternatives W2 and W3 would have provided the safety benefits of full access control, properties along and near existing US 14 on this segment would have had less direct access to US 14 and New Ulm under these alternatives and the existing road would have still carried large volumes of traffic without planned safety improvements. Access to US 14, crossing US 14, and routes into New Ulm would have been more circuitous for property owners in this area.

Avoiding steep grades is also one of the major strengths of the Preferred Alternative. A primary operational and safety concern for Alternatives W2 and W3 was the steep grade along US 14 as those alternatives transitioned between the river valley and the top of the bluff. This was true for the replacement of the existing US 14/MN 15 intersection as part of Alternative W2 and at CR 37 with Alternative W3. To meet MnDOT design criteria, the maximum grade for US 14 at these locations would be five percent, with the desirable grade being three percent.⁶ Preliminary profiles indicated a five percent grade at both locations would have been necessary to maintain reasonable environmental impacts and construction costs. Alternative W2 would have required a cut depth of 56 feet and a fill depth of 45 feet. Alternative W3 had an approximate cut depth of 27 feet and a maximum fill depth of nine feet. There are also major cut and fill areas where Alternatives W2 and W3 would have crossed Heyman's Creek on the top of the bluff. The more complete control of access associated with Alternatives W2 and W3 did offer some safety benefits. However, the steep grades of these alternatives, combined with horizontal curvature, could contribute to run-off-the-road crashes. Steep grades can also contribute to large trucks losing control as they descend. The steep grade is less of a concern from an operational standpoint because the four-lane facility will allow safe passing of slower-moving vehicles. The Preferred Alternative will not require any substantial rock or bluff cuts. (Also see Section 3.7 for a discussion on erosion, and Section 3.3 for a discussion of bluff cuts and visual quality).

East Study Section

By consolidating driveways and relocating them to nearby public roads, the Preferred Alternative E1 has only a few more access points than the new alignment alternatives. As would be expected, the segments of the eastern alternatives that are on new alignment provide the greatest level of access control among the alternatives – access being provided primarily at public roads with limited private access. The Preferred Alternative provides convenient access to Nicollet, as did Alternatives E2 and E3. Alternative E4's intersection with CR 23, located

⁶ From Table 3-4.02A, Maximum % Grades for Lengths Less than 500 FT Long, of the MnDOT Road Design Manual (December 2004).

nearly a mile south of Nicollet, would have provided a much more distant access than other alternatives. The CR 23 intersection most closely maintains existing travel patterns.

A MN 99 intersection option was considered for Alternatives E1, E2, and E3. Nicollet traffic would have traveled south on a re-routed MN 99 (currently Birch Street/CR 72) to the US 14 intersection. The MN 99 intersection route provided a less direct access from Nicollet to US 14 than the CR 23 intersection. For this reason, the MN 99 intersection was not selected as an option in the Preferred Alternative.

3.5.2.2 Trails and Pedestrians

No Build Alternative The No Build Alternative would have adversely impacted the limited amount of bike and pedestrian traffic along the existing corridor because increasing traffic volumes would have to have been accommodated by the existing highway. This impact would have been more apparent in the cities of Courtland and Nicollet

Build Alternatives The Preferred Alternative will not adversely affect current pedestrian and/or bicycle traffic. The Preferred Alternative bypasses of Courtland and Nicollet will remove the mainline highway from these cities, thereby improving overall pedestrian and bicycle safety within city limits.

There exists a grant in aid snowmobile trail that parallels US 14 between CR 37 and the City of Nicollet. These trails are generally located on private property, with some financial assistance provided by the DNR. If the snowmobile trail is in its present location at the time the project is constructed, the crossing of US 14 will be impacted by the Preferred Alternative. Some distance will be added to the crossing. While more lanes will need to be crossed, the median will offer a safer crossing. Trail users will be able to focus on traffic from one direction at a time while crossing US 14.

3.5.2.3 Snow Control

There are currently problems with blowing and drifting snow from Courtland to east of Nicollet. This can present safety problems due to reduced visibility and icy pavement conditions. Also, additional maintenance resources are often required to keep the highway open and safe.

Design of the Preferred Alternative will include consideration of snow control. This may include raising the road grade, adjusting ditch and backslope cross sections, purchasing right-of-way for snow fences and other strategies to minimize blowing and drifting snow along US 14.

3.5.3 Mitigation Measures

Although construction of the Preferred Alternative will improve the transportation system in the region to a much greater degree than it causes negative impacts, several of the design decisions do change existing travel patterns and mitigation for those effects must be considered.

The constrained cross section that will be utilized between Front Street and CR 37 has a narrow median. Although this and the space provided with a four-lane road will go a long way toward preventing head on collisions, there is still a greater risk of cross median crashes with this design than with the standard rural design with a wide median. This issue can be largely



mitigated through the use of a median barrier. This could be a cable barrier or a concrete barrier. A concrete median barrier would most effectively prevent cross median crashes and be the lowest maintenance option, but it would exert greater impact forces on vehicles and occupants, can induce vehicular rollover, would cause more snow drifting, and would impact the visual quality of the corridor. Another option is a high-tension cable barrier. These systems have proven to be easier to maintain than other flexible barrier systems, do not trap snow and other debris, and provide a more stable and forgiving impact than concrete barrier. Methods for preventing cross-median crashes at the narrow median location will be investigated in more detail as the Preferred Alternative W1 moves further along in the detail design process.

Changes in local road access will be mitigated by constructing safer intersections for those roads that do intersect the highway. Except where a specific safety issue exists, roads will continue to access the highway unless they are essentially redundant with another road in providing residential access. An eastbound off ramp onto existing US 14 and an eastbound on ramp to new US 14 are being considered at Courtland. This will improve convenience for local residents without impacting safety, but the cost to construct, adherence to design standards, and maintenance are issues that still need to be resolved. Likewise a westbound on ramp to new US 14 is being considered at Nicollet.

Concerns over safety at Minnesota Valley Lutheran High School are being addressed through the innovative intersection design shown in Exhibit F-2-4. This concept is still under review and subject to modification.

Residential and field access to the highway will be rerouted to local roads. MnDOT will work with the landowners to place these in locations that avoid problems such as wet areas, snow drifting, and incompatibility with farming operations. It is important to note that compensation will not be paid for circuitry of travel (i.e., additional travel resulting from closed or reduced access) as established by case law.

3.6 Socioeconomics

The proposed action addresses a variety of issues related to social and economic development, community cohesion, and increasing traffic volumes, especially high volumes of truck traffic within the Cities of Courtland and Nicollet. These issues are important components of the purpose and need for this project, as described in Section 1.5. The designation of US 14 as a Medium Priority Interregional Corridor is indicative of the highway's role in the economic vitality of the area.

3.6.1 Affected Environment

3.6.1.1 Population Levels and Trends

As shown in Table F-3-6, population levels in the project area have been stable, with indications of greater growth in the cities of Courtland and Nicollet.

These population trends reflect Nicollet County's land use regulations within the township areas of the county (see Section 3.3), which limit rural residential growth and non-residential opportunities, and focus new development on the incorporated cities. Other population statistics for the project area are shown in Table F-3-7. The 2000 Census data show that the



median age and ethnicity of residents is fairly uniform. Deviations in population statistics for Nicollet County (for example, the younger median age) can be explained in large part by the influence of Gustavus Adolphus College in St. Peter.

TABLE F-3-6

US 14 Project Area Population Trends and Percent Change

Area	1980 Population	1990 Population (% Change 1980-1990)	2000 (% Change 1990-2000)	2009 Population Estimate (% Change 2000-2009)
City of New Ulm (Brown County)	13,755	13,132 (-4.5%)	13,594 (3.5%)	13,396 (-1.5%)
Nicollet County	26,929	28,076 (4.3%)	29,771 (6.0%)	32,153 (8.0%)
City of Courtland	399	412 (3.3%)	538 (30.6%)	609 (13.2%)
City of Nicollet	709	795 (12.1%)	889 (11.8%)	1,012 (13.8%)

Source: *Minnesota Department of Administration State Demographic Center Website, January 2005 and August 2010*

TABLE F-3-7

US 14 Project Area Population Characteristics

Area	Median Age	% Under 18	% Over 65	% White	% Black	% American Indian	% Asian or Pacific Islander	% Hispanic	% Other
City of New Ulm (Brown County)	37.8	23.1	16.6	98.1	0.1	0.1	0.9	1.3	0.5
Nicollet County	32.6	24.7	10.8	96.4	0.8	0.3	2.3	1.8	0.7
City of Courtland	35.1	31.6	6.5	98.5	0	0	2.2	0.6	0.4
City of Nicollet	34.4	28.1	11.1	98.2	0.1	0.3	0.6	0.9	0

Note: Demographic percentages for racial/ethnic data do not add up to 100% because an individual may identify themselves in more than one category.

Source: *US Bureau of the Census, 2000*

3.6.1.2 Employment and Income

Table F-3-8 shows the number of people employed in broad job categories within the project area in 2000. Approximately fifty percent of jobs within the project area fall into the categories of education, health, and social services and manufacturing. The non-seasonally adjusted unemployment rate in Nicollet County in January 2010 was 6.0%, which is lower than the State of Minnesota average of 8.2%.⁷ The study area has a diverse workforce with a strong manufacturing and educational-health-social service base. The agricultural industry does not employ a large percentage of people. However agriculture is one of the dominant features of the area economy.

Table F-3-9 shows income levels in the project area are similar to statewide levels. Cities and townships have a lower percentage of individuals and families below the poverty level

⁷ Source: Minnesota Department of Employment and Economic Development website, March 2010



compared to Nicollet County and the State of Minnesota. The median household income in townships is higher than the cities, Nicollet County, and State of Minnesota.

TABLE F-3-8
US 14 Project Area Employment by Industry Sector in 2000

Industry Sector	City of New Ulm (%)	Nicollet County (%)	City of Courtland (%)	City of Nicollet (%)
Agricultural, Forestry, Fishing & Mining	85 (1.2%)	827 (4.9%)	6 (2.0%)	17 (3.3%)
Construction	274 (3.8%)	761 (4.5%)	28 (9.5%)	28 (5.4%)
Manufacturing	1,844 (25.4%)	3,563 (21.3%)	89 (30.1%)	126 (24.3%)
Wholesale & Retail Trade	1,098 (15.1%)	2,044 (12.2%)	33 (11.2%)	70 (13.5%)
Transportation, Warehousing & Utilities	331 (4.6%)	613 (3.7%)	11 (3.7%)	18 (3.5%)
Information	211 (2.9%)	377 (2.2%)	3 (1.0%)	15 (2.9%)
Finance, Insurance & Real Estate	247 (3.4%)	681 (4.1%)	16 (5.4%)	19 (3.7%)
Professional, Scientific & Management	482 (6.6%)	930 (5.5%)	18 (6.1%)	29 (5.6%)
Educational, Health & Social Services	1,541 (21.2%)	4,675 (27.9%)	61 (20.6%)	130 (25.0%)
Arts, Food, Entertainment & Recreation	558 (7.7%)	1,079 (6.4%)	12 (4.1%)	39 (7.5%)
Public Administration	256 (3.5%)	494 (2.9%)	8 (2.7%)	8 (1.5%)
Other Services	342 (4.7%)	713 (4.3%)	11 (3.7%)	20 (3.9%)
Total	7,269	16,757	296	519

Source: US Bureau of the Census, 2000

TABLE F-3-9
1999 Income Characteristics

Area	Average Annual Median Household Income	Average Annual Per Capita Income	Average Percentage Below Poverty Level (Individuals/Families)
Project Area Townships	\$55,268	\$21,418	4.3% / 2.9%
Project Area Cities (New Ulm, Nicollet, Courtland)	\$47,567	\$21,682	4.6% / 3.5%
Nicollet County	\$46,170	\$20,517	7.5% / 4.3%
State of Minnesota	\$47,111	\$23,198	7.9%

Source: US Bureau of the Census, 2000



3.6.1.3 Housing Types and Occupancy Status

As shown in Table F-3-10, The City of Nicollet has a greater number and mix of housing types than Courtland; including apartments, attached single-family homes, manufactured homes, and rental units. An interview with the South Central Minnesota Multi-County Housing and Redevelopment Authority in March 2005 revealed that a small number of subsidized rent payments were made to renters in Courtland and Section 8 housing is available in Nicollet. Some of the most affordable housing in Nicollet is located within the manufactured home park located along US 14 on the city's east end.⁸

TABLE F-3-10
Housing Characteristics

Area	Total Housing Units	Occupancy Status			
		% Owner Occupied	% Renter Occupied	% Vacant	% Seasonal, Recreational, or Occasional Use
City of New Ulm	5,736	77.1%	22.9%	4.2%	0.3%
Nicollet County	11,240	75.8%	24.2%	5.3%	0.3%
City of Courtland	190	84.6%	15.4%	1.1%	0%
City of Nicollet	350	79.4%	20.6%	1.7%	0.3%

Source: *US Bureau of the Census, 2000*

3.6.1.4 Institutional and Public Services

Schools- Within the project area, three public school districts serve students from kindergarten to twelfth grade. This includes Independent School District (ISD) 88 in the New Ulm area, ISD 507 in the Nicollet area, and ISD 77 in the Mankato area. As of December 2004, ISD 88 served 2,900 students, ISD 507 served 570 students, and the North Mankato sector of ISD 77 served 1,761 students. The Minnesota Valley Lutheran High School is located on the northwest corner of US 14 and 561st Street in Courtland Township. During the 2006/2007 school year, 256 students were enrolled at MVLHS. Three schools are located in Nicollet, including public elementary and secondary schools and a private school. These three schools are located north of existing US 14. All school districts use US 14 for busing students to and from school.

Local Government & Public Safety- New Ulm, the county seat of Brown County, provides the full range of city services, including administrative services, engineering and inspections, public works, public safety (including a police department and volunteer fire department), and parks

⁸ Census data show less than four percent of the residents living in the census tract in which the manufactured home park is located earn an income that is below the poverty line. This is lower than the percentage of individuals living below the poverty line overall in Nicollet County and the State of Minnesota, as shown above in Table F-3-11.



and recreation. Nicollet County’s county seat is located in St. Peter, which is outside the project area. The Cities of Courtland and Nicollet share a City Administrator. Nicollet County provides police protection to the Cities of Nicollet and Courtland. Both cities have volunteer fire departments. The New Ulm Medical Center provides ambulance service to New Ulm, Courtland and Courtland Township, and the area in-between New Ulm and Courtland. Gold Cross out of Mankato provides ambulance service to the eastern half of the project area, including the City of Nicollet.

3.6.1.5 Churches and Cemeteries

Several churches and cemeteries are located in close proximity to US 14 and the Build Alternatives; these sites are listed below in Table F-3-11.

TABLE F-3-11
Churches and Cemeteries in Proximity to US 14 and Build Alternatives

Churches	
Courtland Evangelical Church	571 st Avenue & 446 th Street, Courtland
Courtland Evangelical Lutheran Church and Cemetery	US 14 and 531 st Ave.
Immanuel Lutheran Church, Cemetery, and School	CR 25 & 501 st Lane
Trinity Evangelical Lutheran Church	MN 111 (Main Street) and 6 th Street, Nicollet
St. Paul Catholic Church	411 5 th Street (in “triangle” created by US 14, MN 99, and MN 111)
Cemeteries	
Evangelical Cemetery	US 14 and 551 st Avenue (located on private residential property, just west of Courtland)
Courtland Cemetery	531 st Ave. and 446 th Street
St. Paul’s Cemetery	CR 23 (one mile south of Nicollet)
Nicollet Cemetery	MN 111 (one mile north of Nicollet)

3.6.2 Environmental Consequences

The project will require acquisition of additional right-of-way (see Section 3.2). The project will also result in substantial changes in existing access and highway capacity. These changes will affect those currently living and doing business along the highway and will result in some social and economic impacts. Many of the impacts are discussed in other sections of this FEIS. This section addresses Environmental Justice, Economic Impacts, Community Cohesion, and Churches and Cemeteries.

3.6.2.1 Environmental Justice

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, dated February 1, 1994, directs each federal agency to achieve “environmental justice as part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs,

policies, and activities on minority population and low-income population.” The proposed project has federal funding and federal permit requirements and is considered a federal project for purposes of compliance with the Executive Order.

Environmental Justice Finding Planning, demographic studies, and field reviews in the corridor found no minority populations or low-income populations living within or close to the project corridor. Since there are no identified populations, the Environmental Justice Finding for this report is that the proposed action will not have a disproportionately high and adverse human health or environmental effects on any minority population or low income population.

3.6.2.2 Economic Impacts

The No Build Alternative would not have addressed future regional industrial and commercial development. The economic impacts of the No Build Alternative included vehicle delays which would have resulted in higher vehicle operating costs, in particular for heavy trucks. Unlike the Build Alternatives, the No Build Alternative would have included no loss of property tax revenue.

All Build Alternatives supported the ongoing and future economic development in the project area and within southern Minnesota by enhancing US 14’s function as an important interregional trade corridor. All of the Build Alternatives would have enhanced the system linkage of US 14 to the regional highway network. The expansion of the highway to four lanes would also decrease travel time delays and provide freight haulers with more reliable travel times.

As described in Section 3.2: Relocations and Right-of-Way, the Preferred Alternative will require the acquisition of up to 15 residences and five commercial or industrial sites. If those residences and businesses requiring acquisition and relocation choose to relocate elsewhere, property tax revenues would be lost, thereby creating an adverse economic impact. Long-term, positive economic effects of the proposed improvements include new opportunities for local businesses and industry, travel time cost savings for highway users (including local businesses), and a reduction in costs associated with crashes.

Under the Preferred Alternative, the proposed bypasses of Courtland and Nicollet may result in some adverse economic impacts to a small number of businesses located directly along US 14 through these communities because drivers would no longer have direct exposure to these businesses from US 14. These businesses include a gas station and two bar/restaurants in Courtland, and one restaurant (which is currently closed) on the west side of Nicollet.

US 14 is very important to the maintenance of economic vitality in this part of Minnesota. An improved US 14 will provide an infrastructure supportive of economic development for many decades into the future.

3.6.2.3 Community Cohesion

The Preferred Alternative includes bypasses of both Courtland and Nicollet. The cities have favored bypasses for some time. These bypasses are expected to have the effect of increasing community cohesion within each of these communities. Currently, US 14 is located within each community. The highway has served somewhat as a boundary in each community, with development in Courtland tending to occur mainly south of US 14, and in Nicollet, mainly



north of US 14. Following the Preferred Alternative bypass of these communities, through traffic will be located farther from the “Main Street.” While the No Build Alternative would not have required the relocation of households or businesses, increasing traffic volumes through Courtland and Nicollet would have negatively impacted community cohesion. Heavier traffic flow on an unimproved US 14 would have restricted mobility and increased risks associated with crossing the roadway. This would have made the highway a greater barrier between the north and south portions of these communities.

The Preferred Alternative W1 will impact the Shady Brook Acres and Fleck’s Subdivision neighborhood by requiring relocations of some residents. Alternative W2 would have impacted community cohesion within the Spruce Haven Lane neighborhood on top of the bluff by confining the neighborhood to a strip of land between the top of the bluff and the highway. Alternative W3 would avoid these impacts.

An improved US 14 would in some areas enhance community cohesion by improving mobility for residents along US 14, especially through Courtland and Nicollet.

In the East Study Section all the build alternatives require relocating up to three residences to extend CR 24 up to the intersection on the Courtland bypass. No large scale adverse

community or neighborhood cohesion impacts will occur in Nicollet. These bypass options are anticipated to improve connections and community cohesion in both cities by improving safety and access across US 14. A substantial community benefit in both cities, particularly Courtland, will be the diversion of through traffic, especially large trucks, from city streets. Outside of the cities, the Preferred Alternative E1 will result in the fewest agricultural parcel severances and land acquisition. As a result, the Preferred Alternative will best preserve the rural community outside of Courtland and Nicollet.

3.6.2.4 Churches and Cemeteries

The Preferred Alternative will not impact churches or cemeteries. During the alternative development process preceding the DEIS, alignments were developed to avoid impacts in the area of the Evangelical Cemetery located just west of Courtland. As part of construction of the Courtland bypass, 466th Street east of Courtland would be extended to the west. The Courtland Cemetery is located in the southeast quadrant of the 531st Avenue and 466th Street intersection. However, the new local road would not impact the cemetery. Under Alternative E4, the northeast quadrant of an interchange at CR 23 would have been located near the St. Paul Cemetery, although not encroaching upon it.

3.6.3 Mitigation Measures

Aside from mitigations for other impacts, such as relocations (described in Section 3.2.3), there are no impacts that require mitigation. Businesses currently on the highway may want to explore options for signing when highway traffic no longer passes their site. State and Federal laws, as well as county ordinances, regarding roadside advertising apply and this will limit signing to some degree. There will likely be a net positive benefit to businesses in Courtland and Nicollet as the high speed roadway and bypass make them still more desirable as bedroom communities.

3.7 Surface Water, Water Quality, Erosion Control, and Slope Stability

3.7.1 Affected Environment

3.7.1.1 Surface Water Features

The study area is entirely within the Lower Minnesota River Drainage Basin; which is identified as Hydrologic Unit Code (HUC) 07020007 by the U.S. Geological Survey. The water features within the alternative analysis area are listed in Table F-3-12. All features are located entirely within Nicollet County, with the exception of the Minnesota River. The Minnesota River serves as the dividing line between Brown and Nicollet Counties.

Several excavated ponds are located in the study area. Ponds are used for livestock watering, irrigation, stormwater detention, or ornamental purposes and are formed by the impoundment of surface water runoff. Other ponds were formed as a result of rock quarrying or gravel mining. These ponds can provide a source of water for wildlife and may provide habitat for migrating waterfowl.

TABLE F-3-12

Surface Water Resources in US 14 Project Area

Water Resource	Geographic Location	Appendix E Exhibit	Flow Characteristics
Minnesota River	Flows along the southern border of the project area	1 and 2	Perennial
Heyman's Creek	Crosses US 14 east of the intersection of US 14 and CR 37	1	Intermittent/ Perennial
Swan Lake Outlet	Crosses existing US 14 approximately 2 miles west of MN 111	3	Perennial
County Ditch #38	One of the 2 ditches forming the headwaters of Heyman's Creek	1	Intermittent
County Ditch #81	One of the 2 ditches forming the headwaters of Heyman's Creek	1	Intermittent
County Ditch #3	Crosses US 14 approximately 1 mile northwest of the eastern project terminus	4	Intermittent
County Ditch #4	Crosses US 14 east of the City of Nicollet	3	Intermittent
County Ditch #11/12	Crosses US 14 southeast the City of Nicollet	3 and 4	Intermittent
County Ditch #39	South of the City of Nicollet waste water treatment plant	3	Intermittent/ Perennial
Unnamed creek 1	Crosses the project area between Heyman's Creek and Courtland	1	Intermittent
Unnamed creek 2	Crosses the project area between Heyman's Creek and Courtland	1	Intermittent
Unnamed creek 3	Crosses the project area between Heyman's Creek and Courtland	2	Intermittent
Unnamed creek 4	Crosses the project area between Courtland and Nicollet	2	Intermittent
Unnamed creek 5	Crosses the project area between Courtland and Nicollet, flows to Swan Lake	2	Intermittent

The Minnesota River is the largest water feature in the project area. Originating at the Minnesota-South Dakota border; the Minnesota River flows for 335 miles through southern Minnesota before joining the Mississippi River in Minneapolis/St. Paul. Special designations assigned to the Minnesota River include the following:

- **National Park Service’s Nationwide Rivers Inventory (NRI) since 1982** – The NRI is a listing of more than 3,400 river segments in the United States that possess one or more "outstandingly remarkable" natural or cultural values.⁹ The Minnesota River is noted as having outstandingly remarkable values for scenery, recreation, wildlife, and history; it is also one of 50 rivers within the state that has been identified as a candidate for inclusion in the National Wild and Scenic River System.
- **State Canoe and Boating River (under Minnesota Statute 85.32)** – The Minnesota River has been designated as a state canoe and boat route because it is viewed as having historic and scenic values. Canoe and boat routes also identify points of interest, portages, campsites, and all dams, rapids, waterfalls, whirlpools, and other serious hazards which are dangerous to those traveling by canoe or boat.

The DNR’s 1996 Nicollet County Protected Waters and Wetlands Map identifies public waters and wetlands. Public waters and wetlands are subject to Minnesota Statutes, Section 105.42, which requires that a permit be obtained before any alteration is made to the water course, current, or cross section. Public waters within the project area are shown on Exhibits F-E-1 through F-E-4 in Appendix E and include the Minnesota River, a meander loop of the Minnesota River west of CR 37 and Heyman’s Creek, unnamed creek #4, the Swan Lake Outlet, and County Ditch #3. Additionally, two wetlands within the project area are identified as public waters wetlands.

Swan Lake is a shallow “prairie pothole” lake located immediately north of the US 14 corridor. Swan Lake is one of the largest prairie pothole lakes in North America, and serves as a breeding and staging area for waterfowl. While Swan Lake will not be affected by the proposed action, its outlet will be crossed by the Preferred Alternative.

3.7.1.2 Water Quality

Land use in the project area is predominately dedicated to heavily cultivated row crops. Surface water quality problems common to the area include sedimentation and high levels of nutrients from agricultural land that are washed into the area’s streams and shallow lakes.

The Minnesota River has been cited as one of the most polluted rivers in Minnesota and the United States according to the report, *State of the Minnesota River: Summary of Surface Water Quality Monitoring 2002*. A comprehensive study of Minnesota River water quality was completed in 1994 as part of the Minnesota River Assessment Project (MRAP). This study concluded that the Minnesota River is impaired by excessive levels of nutrients and sediment.

The *State of the Minnesota River: Summary of Surface Water Quality Monitoring 2002* report noted that it is difficult to determine if water quality in the Minnesota River Basin has improved over time. Long term and specifically focused studies are needed to understand the health of rivers and streams in the Minnesota River Basin. However, the Minnesota River Basin Data Center has

⁹ Under a 1979 Presidential directive, and related Council on Environmental Quality procedures, all federal agencies must seek to avoid or mitigate actions that would adversely affect an NRI listed river segment.

noted that recent years have seen major improvements in point source pollution control (like industrial and wastewater treatment plant improvements) as well as continued adoption of conservation and best management practices within the Minnesota River Basin. While strides have been made to reduce point-source pollutants, nonpoint source pollutants, such as agricultural and urban runoff, still pose major challenges.

Section 303d of the Federal Clean Water Act (CWA) requires states to report streams and lakes that are not meeting their designated uses because of excess pollutants. The “303b” list (the list of impaired waters) is meant to measure and report the water quality status and gauge whether a water body is able to support the use for which it has been designated. Examples of designated uses include drinking water, aquatic life and recreation, agriculture, wildlife, industrial consumption, aesthetic enjoyment, and navigation. The following segments of the Minnesota River within the project area are included on the 303d list, meaning the river is considered impaired with the indicated pollutants or stressors.

- Eight Mile Creek to Cottonwood River
 - Mercury & PCB in Fish Tissue
- Cottonwood River to Little Cottonwood River
 - Mercury & PCB in Fish Tissue
 - Turbidity
- Little Cottonwood River to Morgan Creek
 - Mercury & PCB in Fish Tissue
- Morgan Creek to Swan Lake Outlet
 - Mercury & PCB in Fish Tissue
- Swan Lake Outlet to Minneopa Creek
 - PCB in Fish Tissue
 - Mercury & PCB in Water Column
 - Turbidity

The MPCA is in the process of developing pollutant reduction strategies known as Total Maximum Daily Loads (TMDLs). Currently, regulatory compliance with TMDLs is satisfied by following the NPDES construction stormwater permit.

The Minnesota Department of Health’s Nitrate-Nitrogen Probability Maps for both Brown and Nicollet Counties show areas that have low, medium and high probability of being contaminated with nitrate-nitrogen (January 2002). Within Nicollet County, the map shows that areas near the Minnesota River valley and Swan Lake have the highest probability of contamination in the project area. This vulnerability for nitrate-nitrogen contamination also indicates vulnerability to other contaminants.

3.7.1.3 Erosion and Slope Stability

The topographies of the West and East Study Sections are distinct. West of Courtland, the Minnesota River valley descends over 150 feet from the top of the bluff to the River. This area is characterized by steep, wooded bluffs with slopes ranging from 2 percent to 70 percent. Records from the Minnesota County Well Index indicate that geology of the West Study Section bluff

area is characterized by alternating layers of clay, shale, and/or sand before reaching a sandstone bedrock. East of Courtland, the topography is fairly level with some gently sloping terrain; and there is limited risk for erosion due to steep slopes.

3.7.2 Environmental Consequences

3.7.2.1 Surface Water

Table F-3-13 shows the number of agricultural ditches, streams, and rivers crossed by the Preferred Alternative and each of the other Build Alternatives. In addition to ditch and stream crossings, it will be necessary to provide small culvert crossings to allow water to drain properly. All west study section Build Alternatives, including the Preferred Alternative W1, cross the Minnesota River, Heyman’s Creek and other unnamed creeks. All east Build Alternatives, including the Preferred Alternative E1, impact several unnamed creeks, county ditches, and the Swan Lake outlet. Alternative E4 would have crossed county ditch 11 in three locations. The project will require work in public waters, and as a result permits from the DNR will be required.

Construction of a new Minnesota River crossing has the potential to impact water flow in the river. Coordination with agencies charged with protecting the river has already begun. By working with these agencies it is anticipated post construction flows will be similar to existing.

Heyman’s Creek is an area of concern for the DNR. The current crossing will be widened and the existing water control structures immediately upstream of the highway, which was put in during a previous highway improvement project, will be affected. This project will provide an opportunity to construct a creek crossing that is more compatible with current DNR stream management practices.

TABLE F-3-13
Ditch, River, and Stream Crossings (Number of Crossings)

	West Study Section			
	Preferred Alt W1	Alt W2	Alt W3	
Agricultural Ditch	0	0	0	
River/Stream	6	6	4	
TOTAL	6	6	4	
	East Study Section			
	Pref Alt E1	Alt E2	Alt E3	E4
Agricultural Ditch	3	3	3	5
River/Stream	3	3	2	2
TOTAL	6	6	5	7

3.7.2.2 Water Quality

All Build Alternatives would increase impervious surface by adding at least two additional lanes of traffic across the entire corridor. This is also true of the Preferred Alternative, but alternatives that utilize less of the existing alignment result in the greatest increase in impervious surface. Construction of additional lanes will lead to increased water runoff volumes and discharge rates and has the potential to affect runoff water quality by increasing pollutant loading. The most common contaminants found in roadway runoff are heavy metals, inorganic salts, aromatic hydrocarbons, oil and suspended solids that accumulate on the roadway surface as a result of regular highway operation, wear and tear of vehicles, and maintenance activities. These materials are often washed off roadways during rain events. Increased runoff volumes and discharge rates can cause or exacerbate flooding problems. If no mitigation measures were implemented, increased runoff volumes could worsen water quality by increasing erosion or exceeding the capacity of existing storm water controls.

The Preferred Alternative has the least potential for erosion of all the Build Alternatives

The Preferred Alternative includes expanding the Minnesota River Bridge from two to four lanes. As the project moves forward, MnDOT will continue to coordinate with appropriate environmental resource agencies regarding the proposed river crossing. MnDOT coordinated with the National Park Service (NPS) – Midwest Regional Office regarding whether the project could affect the status of the Minnesota River on the National Rivers Inventory (NRI). The NPS noted that the US 14 project is in an early conceptual phase. The NPS requested that MnDOT continue to keep the NPS informed as plans for the project progress. The NPS did offer several recommendations to MnDOT as planning for the proposed project continues. The correspondence is included in Section 4. MnDOT also coordinated with the DNR Regional Trails and Waterway Coordinator. The DNR has concurred that the proposed project will not result in an adverse effect to Minnesota River’s status as a state Canoe and Boating River. See Section 3.14 for additional discussion of boating facilities, including the Eckstein Boat Landing.

3.7.2.3 Erosion and Slope Stability

This project will result in some potential for erosion as existing ground cover will be disturbed during construction. However, the Preferred Alternative has the least potential for erosion. This is because the Preferred Alternative avoids major bluff cuts or fill sections. The greatest potential for post construction erosion was found in Alternatives W2 and W3. Those alternatives had the most potential for substantial impacts to the Minnesota River bluff in the vicinity of US 14/MN 15, and in the vicinity of CR 37. The major cuts required to construct Alternatives W2 or W3 played a significant role in the decision to select Alternative W1 as the Preferred Alternative.

County Well Index records indicate that the bedrock is located deep enough to not be impacted by roadway construction on the Minnesota River bluffs. No rock cuts are anticipated for the work to be done. However, given the alternating layers of clay and sand at these bluff lines, there is a likelihood that groundwater “seeps,” with localized groundwater coming out of the hillside, could exist. By keeping the ground saturated, these seeps could increase the erosion potential. However, the relatively small amount of water that would come out of these naturally

occurring seeps could be controlled with standard best management practices (BMP) such as vegetated buffers.

3.7.3 Mitigation Measures

3.7.3.1 Surface Water

The project will cross numerous small drainage ways. During the detailed design phase of this project these drainage ways will be examined for any localized flooding problems related to the highway. Identified problems will be corrected to the extent practicable. In addition, flow in drainage ways will be maintained, so that drainage is not adversely affected upstream of highway crossings. Existing agricultural drain tiles will be modified to the extent possible to maintain existing farmland drainage. Coordination regarding the Minnesota River crossing will be conducted with the DNR and NPS. Likewise, coordination will continue with the DNR regarding the Heyman's Creek crossing. Construction at both of these sites will require permits for work in Public Waters.

3.7.3.2 Water Quality

During construction protection of water quality will be a primary concern. A National Pollutant Discharge Elimination System (NPDES) construction storm water permit will be obtained prior to construction activities. This permit will require the implementation of best management practices for water quality protection during construction and establishment of post construction runoff controls. Temporary and permanent erosion control methods may include silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed embankments, erosion mats, and mulching. Water treatment facilities will be constructed in areas adjacent to streams and wetlands such that roadway runoff will be intercepted prior to entering the waterway. Runoff from the new and larger Minnesota River Bridge will be directed to the ends of the bridge, which will provide the best opportunity for water quality treatment prior to discharge. Most of the project will utilize a rural highway design in which runoff is conveyed through vegetated ditches providing initial treatment by capturing sediment and nutrients. Currently, it is standard practice to construct dry water treatment ponds prior to discharging runoff into receiving waters. Discharges within a mile of impaired waters require additional treatments including infiltration. The best management practices extant at the time of construction will be utilized. For the segment between the Minnesota River Bridge and CR 37 that will utilize an urban design with curb and gutter, water treatment will be accomplished either through routing to ponds or in structures that separate sediment from the water flow. See also Section 3.22.2.6 for a discussion of storm water management related to construction activities.

3.7.3.3 Erosion and Slope Stability

Slope stability concerns have been greatly reduced by the selection of W1 as the Preferred Alternative. To the extent possible cuts into bluff sides will be avoided. Fill slopes and ditch side slopes will generally be developed at a maintainable slope (1:3 or gentler). If any locations require steeper slopes (e.g. between the Minnesota River and the New Ulm Roadside Rest Area), engineered slope stabilization methods will be used. Steep runs in ditches will be protected as the situation dictates, potentially utilizing ditch checks or pipes to limit flow rates and convey water.

3.8 Ground Water

3.8.1 Affected Environment

Several aquifers are available for water supply in Nicollet County. The majority of groundwater comes from glacial aquifers formed by deposits of the series of glaciers covering the project area thousands of years ago. Rural homes and the cities of Nicollet and Courtland have wells that draw from these glacial aquifers. Historically, contamination of water supplies (primarily by nitrates-nitrogen) in Nicollet County has been a concern. Groundwater data from the *Drinking Water Quality Report for Nicollet County*¹⁰ showed that between 1988 and 2001, about 5 percent of the 1,468 wells sampled had average nitrate concentrations above the national drinking water standard of 10 parts per million (ppm). The City of New Ulm, which also draws from glacial drift, has not had this contaminant problem. According to County Well Index records, the water table in the US 14 project area is between approximately 25 feet below ground surface near the Minnesota River to 200 feet below ground surface at the top of the bluffs.

Ground water seeps have been identified along the Minnesota River bluffs in western portions of the project area. These are typically a result of local drainage patterns where infiltrated water is unable to go through a layer of clay, instead running on top of the clay until it flows out of the bluff hill side. The water flow at these seeps is relatively minor compared to the more substantial ground water resource found at greater depths below surface.

3.8.2 Environmental Consequences

While there has been a concern about nitrate contamination in Nicollet County wells, no adverse groundwater impacts are anticipated from the US 14 project. Neither highway construction nor standard highway maintenance practices are considered to be sources of nitrate contamination. Because of the deep water table and stormwater treatment plans described in Section 3.7.2, groundwater flow and quality will not be impacted.

3.8.3 Mitigation Measures

This project will not involve installation of new wells. Any residential or commercial wells that will be removed during construction, as well as any unused or unsealed wells discovered in the right-of-way during construction, will be addressed according to Minnesota Department of Health Rules, Chapter 4725, or through obtaining an annual maintenance permit.

3.9 Wetlands

Wetlands are protected by Federal law (the Clean Water Act - Section 404) and State law (Minnesota Wetland Conservation Act), and State Executive Orders. These laws mandate “no net loss” of wetland functions and values, and require that projects avoid, minimize, and mitigate any potential impacts, a process referred to as sequencing. To comply with Federal and State laws, all potentially affected wetlands in the project area have been identified and classified. MnDOT designers attempted to avoid and minimize impacts during the development of alternatives.

¹⁰ Brown-Nicollet Environmental Health and Minnesota Department of Health *Drinking Water Quality Report for Nicollet County* (2002).

Wetlands potentially impacted by any of the project alternatives were assessed during the DEIS. The process of identifying these wetlands consisted of a review of published sources including National Wetland Inventory (NWI) mapping, soil survey data, rainfall data, aerial photography, topographic maps, and stream gage data, a preliminary planning-level “windshield” survey; delineation of wetlands using the “Three-parameter” methodology and an aerial slide review. Wetland functions were assessed with the Minnesota Routine Assessment Method (MNRAM 3.0).

A *Preliminary Draft Wetland Technical Report* was prepared early into the EIS process to document the wetland assessment process. This publication is found under “documents” on the project Website: www.dot.state.mn.us/d7/projects/14newulmtonmankato/documents.html. Wetland resource agencies

reviewed and commented on this report, which was subsequently used to guide a meeting of a Technical Evaluation Panel (TEP) on March 2, 2005. Updates to the Wetland technical report are posted as report Supplements on the project web-site. The TEP included members from MnDOT, the Minnesota Board of Water and Soil Resources (BWSR), the Nicollet County Soil and Water Conservation District (SWCD), Nicollet County Environmental Services, Minnesota Department of Natural Resources (DNR), the US Army Corps of Engineers (US COE), and the US Environmental Protection Agency (via teleconference).

In comments submitted on the DEIS, the US COE stated that they require wetland delineations to have been done within five years of construction. They also requested that the Eggers and Reed classification system be used to compare functions and values of impacted wetlands to replacement wetlands. MnDOT will coordinate with the US COE to ensure that the timing and methodology of the delineations is acceptable to them at the time of permitting.

As the design of the Preferred Alternative moves forward, a more exact roadway footprint alignment will be developed. This will allow wetland impacts to be more precisely calculated. Also, efforts to further minimize impacts to wetlands will be undertaken when the final horizontal and vertical alignments are set.

3.9.1 Affected Environment

Within the area potentially impacted by any of the project alternatives (the US 14 wetland study area or “polygon”), forty-three wetlands were identified during the review of Farm Service Agency aerial slides. During the preparation of the DEIS, twenty additional wetlands were identified using the “three-parameter” wetland delineation method. Wetland types identified within the project area are summarized below in Table F-3-14. The *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin 1979) assigns codes to these wetland types consistent with usage in the NWI. The publication *Wetlands of the United States* (a.k.a ‘Circular 39’) (Shaw and Fredine 1956) assigns codes to wetland types consistent with usage in the Minnesota Wetland Conservation Act. Table F-3-14 summarizes the occurrence of these wetland types in the wetland study area.

To comply with Federal and State laws, all potentially affected wetlands in the project area have been identified and classified. During the development of alternatives MnDOT worked to avoid and minimize potential wetland impacts

Wetlands in an agricultural landscape (generally Circular 39 Type 1) are typically impacted by farm drainage or chemical application practices and may even be used for crop production in some years. These wetlands often have limited diversity or ecological functions. Wetlands that are not farmed, especially in this region, often have characteristics that are supportive of waterfowl and some diversity of vegetation. These wetland types may also provide some retention of surface water drainage, thereby helping to reduce seasonal effects of flooding in the Minnesota River Valley. Type 7, wooded swamp, wetlands are most prevalent in the bottom lands associated with the Minnesota River floodplain.

TABLE F-3-14
Wetland Types in the US 14 Study Area¹

Circular 39 Type	Cowardin Code	Area (acres)	Percentage Area of US 14 Project Area Polygon ²
1 (seasonal basin)	PEMA	167.2	2.4%
2 (wet meadow)	PEMB	14.9	0.2%
3 (shallow marsh)	PEMC	68.6	0.9%
4 (deep marsh)	PEMC, PEMF	0.0	0.0%
5 (open water)	PEMF, POWF	2.9	0.0%
6 (shrub swamp)	PSS1A, PSS1C	1.8	0.0%
7 (wooded swamp)	PFO1A, PFO1C	108.7	1.5%
8 (bog)	PFO (various)	0.0	0.0%
Total		364.1	5.2%

¹ Translations of Cowardin Codes and Circular 39 Codes are per the Minnesota Wetland Conservation Act. These acreages are based on data analyzed in December 7, 2004 and August 24, 2005.

² The US 14 Project Area Polygon covers 6,902 acres and represents all land within the range of alternatives (i.e. the area of potential impacts for the proposed action).

Review of the Mn/DNR Nicollet County Protected Waters and Wetlands Map revealed two Public Waters Wetlands and four Public Waters mapped partly or wholly within the US 14 Project Area Polygon:

- **Public Water Wetland "62W"**, an abandoned River oxbow, is mapped in the bottoms of the Minnesota River just northwest of CR 37.
- **Public Water Wetland "26W"** is mapped south of the City of Nicollet, MN. The Public Water Wetland (26W) corresponds in part with delineated wetlands "W-NI-28-6-1" and "AW-NI-28-9-1."

These Public Waters Wetlands are under the jurisdiction of the DNR and therefore are not regulated under the Minnesota Wetland Conservation Act.

3.9.2 Environmental Consequences

Tables F-3-15 and F-3-16 summarize wetland impacts for the Preferred Alternative and the other Build Alternatives. The total wetland impacts for the project are currently expected to be about 21.9 acres. This accounts for all the wetlands that fall within the anticipated right of way based on preliminary designs. The actual acreage of wetlands that have permanent impacts should be less than that because some of the area will be outside the actual road embankment and ditches. Only 10.8 acres for W1 and 3.2 acres for E1 actually fall within preliminary construction limits (the line where the fill or cut intersects natural ground).

TABLE F-3-15
Summary of Wetland Impacts by Wetland Type in West Study Section

Circular 39 Type	Impacts of Alternatives – acres		
	Pref. Alt. W1	Alt. W2	Alt. W3
1 (seasonal basin)	0.1	0.0	0.0
2 (wet meadow)	1.1	0.0	0.0
3 (shallow marsh)	0.0	0.0	0.0
4 (deep marsh)	0.0	0.0	0.0
5 (open water)	0.0	0.0	0.0
6 (shrub swamp)	1.1	0.0	1.1
7 (wooded swamp)	11.4	4.4	11.1
8 (bog)	0.0	0.0	0.0
Total	13.7	4.4	12.2

TABLE F-3-16
Summary of Wetland Impacts by Wetland Type in East Study Section

Circular 39 Type	Impacts of Alternatives – acres			
	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4
1 (seasonal basin)	1.8	5.8 [5.8]	16.2 [13.6]	4.1
2 (wet meadow)	3.9	2.4 [2.4]	0.0 [0.0]	0.0
3 (shallow marsh)	2.4	5.1 [5.1]	0.5 [0.5]	0.5
4 (deep marsh)	0.0	0.0 [0.0]	0.0 [0.0]	0.0
5 (open water)	0.0	0.0 [0.0]	0.0 [0.0]	0.0
6 (shrub swamp)	0.0	0.0 [0.0]	0.0 [0.0]	0.0
7 (wooded swamp)	0.1	0.1 [0.1]	0.0 [0.0]	0.0
8 (bog)	0.0	0.0 [0.0]	0.0 [0.0]	0.0
Total	8.2	13.4 [13.4]	16.7 [14.1]	4.6

Note: The bracketed numbers under Alternatives E2 and E3 are the impacts if an interchange was built at MN 99 instead of at CR 23 in Nicollet. This option was not selected.



In order to issue a permit for work in wetlands, the U.S. Army Corps of Engineers must make a determination that the proposed action represents the Least Environmentally Damaging Practicable Alternative. This means that the selected alternative must be a reasonably constructible alternative that does the least harm to water resources while satisfying the purpose and need for the project and causing no other significant environmental impacts.

In the West Study Section, the costs of the bridges to span the Heyman's Creek ravine make Alternatives W2 and W3 not practicable. While able to be constructed, the 500 foot long bridge would cost at least \$5,000,000 (potentially much more given the apparently unstable soils that form the ridge between the Minnesota River Valley and the Heyman's Creek ravine) and require significant additional maintenance. These costs make the bluff top alternatives not practicable. Additionally, clearing the hillside vegetation, cutting into the bluff, crossing Heyman's Creek, and adding the additional impervious area, while leaving the existing road in place without added water treatment ponds, would cause adverse environmental effects. Cumulatively these impacts would cause more harm to water resources than filling nine additional acres of wetlands (i.e. Alternative W1 vs. W2 impacts) would have. In the West Study Section, Preferred Alternative W1 is the least environmentally damaging.

In the East Study Section the Preferred Alternative impacts more acres of wetland than Alternative E4. While Alternative E4 is practicable, constructing on new alignment would result in another highway with the associated impervious surface and impediment to wildlife movements. It would consume large quantities of additional farmland. It would also have more effects on County Ditches 11 and 39, the latter of which is a modified natural stream. Finally, because of the greater separation between Nicollet and the intersection that provides access to the city, there is a high probability that development would jump out to the intersection, increasing sprawl and inducing the development of more impervious area. The cumulative effect of these impacts would cause more harm to water resources than filling less than four additional acres of wetlands (i.e. Alternative E1 vs. E4 impacts) would have. Therefore, in the East Study Section, Preferred Alternative E1 is the least environmentally damaging.

3.9.3 Wetland Sequencing

Wetland sequencing refers to the planning process which demonstrates wetland avoidance, wetland impact minimization, and mitigation for unavoidable wetland impacts. Several resource agencies, including the U.S. Army Corps of Engineers, DNR, Natural Resources Conservation Service (NRCS), and Nicollet County SWCD were consulted as part of the wetland sequencing process. The Draft Wetland Technical Report and associated updates provide more detail concerning ongoing wetland sequencing efforts (see www.state.mn.us/d7/projects/14newulmtomankato/documents.html).

3.9.3.1 Wetland Impact Avoidance

Given the abundance of wetlands in the US 14 Project Area it is not possible to design alternatives that simultaneously meet highway safety guidelines and avoid impacts to wetlands. However, wetland boundaries identified early in the EIS process were used to develop alignment alternatives that avoided wetlands to the extent practicable. The following

list summarizes avoidance measures that were implemented in developing the Build Alternatives:

- A Far North Courtland Bypass was eliminated early in the planning process in part because of potential for high wetland impacts.
- Alternative E3 was designed to avoid impacts to Public Water Wetland “26W,” just southwest of Nicollet.
- Alternative E4 was designed to avoid an area mapped by NWI as a wetland in the southwest corner of Section 8, Range 28W, Nicollet Township.

A more detailed account of alternatives screening and alignment adjustment pertinent to wetland avoidance can be found in documents available on the Project Website:

<http://www.dot.state.mn.us/d7/projects/14newulmtonmankato/>

Since publication of the DEIS additional design work has been done on the Preferred Alternative to avoid wetland (and historic property) impacts. For example, Alternative E1 was modified to avoid wetlands south of Nicollet.

3.9.3.2 Wetland Impact Minimization

Several design strategies and Best Management Practices (BMPs) were used to minimize unavoidable wetland impacts. Design strategies for the Preferred Alternative for the US 14 road improvement project include:

- **Constrained cross section.** The west portion of the Preferred Alternative W1 (between the Minnesota River Bridge and CR 37) will use a narrow median to reduce the width of the highway. This will avoid impacts to 3.4 acres of wetlands and 7.0 acres of floodplain in the bottoms of the Minnesota River. The constrained design provides a substantial benefit to wetlands, since it reduces the width of embankment about 52 feet along the length of this segment.
- **Increase in ditch slope.** The Preferred Alternative will increase the slope of the ditch adjacent to the outside lanes which will reduce the footprint of the roadway. The typical rural cross section calls for 1:6 (vertical: horizontal) slopes. However, in locations where valuable wetlands can be avoided, a steeper 1:5 or even 1:4 slopes may be used on straight sections of roadway. These steeper slopes would minimize wetland impacts. Slopes steeper than 1:4 are not considered acceptable design because errant vehicles cannot recover and return to the roadway.

BMPs will be specified in the NPDES permit process and utilized in construction to further minimize wetland impacts for the US 14 project. It is anticipated these practices will include properly installed silt fences, establishment of no intrusion areas during road construction, rapid re-vegetation of side slopes with anti-erosion cover crops using techniques such as hydro-seeding or seed drills, and the use of appropriate anti-erosion technologies such as jute mats or hay-disking.

3.9.3.3 Wetland Mitigation

For those impacts that are not avoidable, mitigation will follow the replacement guidelines associated with the regulatory permit requirements applicable at the time of construction.



Typically mitigation includes replacing the impacted wetland areas with wetlands of similar functions and values, ideally as geographically close to the area of the impacted wetlands as possible. The preferred method of replacing wetlands is through restoration of previously drained wetland areas. The ratio of replacement wetland to acres of impacts varies depending on whether the mitigation provides for similar functions and values, occur in the same watershed, and other factors. Typically, replacement requires two acres of wetlands for every acre impacted.

For Type 1, 2, and 3 wetland impacts that are typical of the East Study Section, there are abundant amounts of drained hydric soils in project area which have high potential for successful wetland restoration. It is anticipated that wetland replacement could be accomplished in a way to support the long-term management goals of the Swan Lake Wildlife Management Area. The US 14 project wetland mitigation goals would be in keeping first with the intent of Section 404 of the Clean Water Act and the Minnesota Wetland Conservation Act, but to the extent that these goals overlap with the goals of the Swan Lake Wildlife Management Area opportunities for partnering will be explored. Likewise, partnerships with other local entities in promoting project specific wetland restoration in the project area will be considered.

Available credits from the pool of sites in the MnDOT and BWSR Cooperative Wetland Replacement Program could be utilized for wetland replacement. There are also credits established in conjunction with previous US 14 projects.

More detailed analyses of parcels both suitable and available for wetland mitigation will be completed as the design of the project moves forward.

3.10 Floodplains

3.10.1 Affected Environment

As discussed in Section 3.7.1, the study area includes a variety of surface water resources that are within the Lower Minnesota River Drainage Basin. FEMA mapping of the one hundred year floodplain is available for the areas along the Minnesota River and Heyman's Creek in the West Study Section (see Exhibit F-E-1 in Appendix E). FEMA has not mapped the floodplain for any other river, stream, or ditch within the study area. The one hundred year floodplain areas for the Minnesota River and Heyman's Creek are depicted on Flood Insurance Rate Maps (FIRM), panel numbers 27015C0205 C and 27103C0245 G. Project area floodplains, including vegetated riparian zones, provide flood and storm water attenuation by decreasing water velocities and providing temporary water storage. Floodplains also filter, remove, and retain nutrients and sediments; provide erosion control; and provide habitat and movement corridors for wildlife.

The current Brown County Flood Map (2009) gives 100 year flood elevations of 813 feet upstream and 812 feet downstream of the Minnesota River Bridge. The Nicollet County Flood Map (1999) shows 810 feet upstream and 809 feet downstream of the bridge. For purposes of computing impacts, the updated Brown County Flood Map elevations were used. As a reference point, the existing US 14 bridge over the Minnesota River has a bridge deck elevation of approximately 820 feet. This section of the Minnesota River has a history of flooding. The record flood year was in 1997 when the river reached 811 feet. The river reached 809.5 feet in 1969 and 808.3 feet in 2001.



US 14 roadway elevations in the western limits of the project area are generally at or above an elevation of 812 feet. However there is a short segment of US 14 (approximately 1,000 feet east of the MN 15 intersection) that has a roadway elevation of approximately 810 feet. This section is at risk for flood waters overtopping the highway.

Presidential Executive Order 11988 on Floodplain Management requires that federal agencies, in carrying out their proposed projects, provide leadership and take action to reduce the risk of flood loss; minimize the impacts of floods on human safety, health and welfare; and restore and preserve the natural and beneficial values served by floodplains. In addition FHWA's policy aims to:

- Avoid longitudinal encroachment, where practicable;
- Avoid substantial encroachments, where practicable (23CFR Chapter 1, Sec. 650.103);
- Encourage a broad and unified effort to prevent uneconomic, hazardous or incompatible use and development of the Nation's floodplains.

3.10.2 Environmental Consequences

3.10.2.1 Floodplains and Hydraulics

Based on review of FIRM mapping, floodplain is located along the Minnesota River and Heyman's Creek in the West Study Section. The Preferred Alternative W1, as well as Alternatives W2 and W3, impact the Minnesota River's 100-Year floodplain and the Heyman's Creek 100-Year floodplain (see Table F-3-17).

The Preferred Alternative W1 (as well as Alternatives W2 and W3) will transversely impact the Minnesota River 100-Year floodplain between Front Street and the intersection with MN 15. This transverse encroachment is due to the construction of the new bridge of the Minnesota River and the causeway between the river and the MN 15 intersection. Alternatives W2 and W3 would have similar impacts. This transverse encroachment was unavoidable under any of the Build Alternatives studied.

Additionally, the Preferred Alternative will result in a longitudinal floodplain impact along existing US 14 between MN 15 and CR 37. Alternative W3 would also have had a longitudinal encroachment. Alternative W2 would have avoided the longitudinal encroachment; however, for the reasons discussed in Section 2.3.2, Alternative W2 is not a practicable alternative.

The Preferred Alternative W1 has a transverse impact to Heyman's Creek in one location. Alternative W2 would have had transverse impacts to the Heyman's Creek floodplain on top of the bluff in three locations.

In this study area, impacts to the 100-Year floodplain identified as associated with the Minnesota River are also floodway encroachments (i.e. the floodplain and floodway in the Minnesota River are the same). Encroachments at Heyman's Creek are not in the floodway; rather they are in the flood fringe area.

TABLE F-3-17

Summary of 100-Year Floodplain Impacts in West Study Section in Acres and Feet

	Pref Alt. W1		Alt. W2		Alt. W3	
	Acres	Length of Encroachment (feet)	Acres	Length of Encroachment (feet)	Acres	Length of Encroachment (feet)
Minnesota River – Transverse Impacts	18	3,700	18	3,700	18	3,700
Heyman’s Creek – Transverse Impacts	2	400	3	600	3	300
Minnesota River – Longitudinal Impacts	24	10,100	None	None	24	10,100
Heyman’s Creek – Longitudinal Impacts	None	None	4	1,000	None	None
TOTAL	44	14,200	25	5,300	45	14,100

Note: Impacts include only new alignment; existing roadway within the floodplain is not included in the impacts.

3.10.2.2 Floodplain Impact Assessment

The assessment of potential impacts to 100-Year floodplains was completed using the methodology and guidance provided by FHWA in Technical Advisory 6640.8A, which requires assessment of the topics below. Based on the assessment below, no significant floodplain impacts are expected.

No Significant Potential for Interruption of a Transportation Facility which is Needed for Emergency Vehicles or Provides a Community’s only Evacuation Route

The City of New Ulm is bounded on the east by the Minnesota River and on the south by the Cottonwood River. The bridge over the Minnesota River and roadway for US 14 will be above the 100-year flood elevation through the MN 15 intersection. The MN 15 Bridge over the Cottonwood River (elevation 842 feet) is well above the 100-year flood elevation (811 feet). Therefore, evacuation will be possible through a number of routes.

Portions of US 14 between MN 15 and CR 37 will likely be raised above the 100-year flood elevation to minimize impacts to the traveling public, especially during emergency events. Raising the roadway will result in approximately 1.5 acres of floodplain and 0.4 acres of wetland impacts (already accounted for in Table F-3-17). For larger storms, the local road system will provide emergency vehicle access to nearly any location except along that segment of US 14. However, of the three residences that have access along the highway in that segment, one will be bought out as part of the project and the other two will have their access rerouted to bluff top township roads that will be accessible in a flood.

No Significant Impact on Natural and Beneficial Floodplain Values will Result

There will be impacts to wetlands in the Minnesota River floodplain. These will be minimized by keeping the road elevation low (just above the 100 year flood elevation between New Ulm

and CR 37), and minimizing the cross section as much as possible while maintaining an appropriately safe design.

No changes to the channels of either the Minnesota River or Heyman's Creek are anticipated. The current public access (boat and canoe) and boat passage on the Minnesota River will not be adversely affected by any of the Build Alternatives.

There are threatened and endangered mussel species in this stretch of the river. A mussel survey was conducted, but it is understood that they migrate and may or may not be present at the time of construction. Coordination will be undertaken with the DNR to determine if a mussel survey should be done just prior to the time of construction. There will be no impact to fisheries. No aquatic species will experience a significant impact from this project.

During construction protection of water quality will be a primary concern. Construction in or near floodplains will be undertaken in accordance with MnDOT Standard Specifications, project special provisions, and the NPDES stormwater control permit to control the potential for erosion and possible sedimentation. Temporary and permanent erosion control methods may include silt fences, retention basins, detention ponds, interceptor ditches, seeding and sodding, riprap of exposed embankments, erosion mats, and mulching. Drainage systems, including ditches on private lands, will be maintained, restored, or re-established in a manner that will not impound water. Water treatment facilities will be constructed in areas adjacent to streams and wetlands such that roadway runoff will be intercepted prior to entering the waterway. In the long run, building on the existing alignment will improve water quality by treating runoff from the highway.

No Significant Increased Risk of Flooding will Result

A preliminary review of the flood model in this area indicates that the amount of fill that will be required for the embankment is very small compared to the size of the floodplain. Therefore, no notable change in flood elevations is expected due to this project. The model will be run again with final design information prior to obtaining a permit from the DNR for work in the Minnesota River.

Will the Project Support or Result in any Incompatible Floodplain Development?

The City of New Ulm has a Floodplain Management section in Chapter 12 of their ordinances. Bridges are a permitted conditional use in the floodplain district (12.04 Subd 3D). Nicollet County's zoning ordinance 610.5 allows for bridges as a conditional use in the 500-Year Floodplain. FEMA/FIRM maps are used to designate the 100-Year floodplain boundaries. The project is compatible with community floodplain development plans.

The Federal Emergency Management Agency (FEMA) dispenses funds to municipalities to buy parcels of land which are subject to frequent flooding. Nicollet County and the City of New Ulm were contacted in December 2006 to determine if any parcels in the US 14 project area had been purchased with FEMA floodplain buy-out funds. The City of New Ulm had used these funds to purchase a flood prone parcel on the Cottonwood River, but none had been purchased within the US 14 project area. Nicollet County has not purchased any flood prone parcels in the US 14 project area with FEMA floodplain buyout funds.

Because access to the highway between MN 15 and CR 37 will be limited to only right in right driveways and the one existing residence will be purchased, the potential for incompatible floodplain development in this area will be greatly reduced relative to the current situation.

3.10.3 Mitigation Measures

When detailed design information is available, the flood model will be run to determine if the encroachments would result in an increase in the 100 year flood elevation. If there is an unacceptable increase, MnDOT will develop mitigation in coordination with the DNR to maintain current flood elevations.

In addition to the mitigation measures discussed above, the Preferred Alternative W1 includes a constrained highway design between the Minnesota River Bridge and CR 37 to avoid and minimize potential impacts to the Minnesota River floodplain. Continued preliminary highway design in this area will take into consideration any impacts on the surrounding floodplain.

3.11 Upland Habitat and Wildlife

3.11.1 Affected Environment

Upland habitat includes non-tilled land that is wooded or has other vegetation suitable for providing wildlife food and cover. Upland plant communities present within the US 14 project area include Mesic Upland Forest, Forested Fencerows, Mesic Prairie, Shrubland, and Non-Native Grassland. The types of upland plant communities in the project area are briefly described below.

- **Mesic Upland Forest.** Mesic upland forests within the project area are generally dominated by bur oak, white oak, and red oak. West of Courtland, several large tracts of mesic upland forest are located in the dissected bluffland and terraces above the Minnesota River. East of Courtland, mesic upland forests are sparse and small and often maintained as woodlots or windbreaks.
- **Forested Fencerows.** The plant species composition of forested fencerows is quite variable. Forested fencerows provide foraging and cover of movement for a variety of wildlife.
- **Mesic Prairie.** Several small degraded native stands of mesic prairie are scattered throughout the project area. More common are stands of planted mesic prairie on private land, road rights-of-way, and within the Swan Lake Wildlife Management Area. Common plant species in mesic prairie stands are big bluestem, little bluestem, Indian grass, switchgrass, horsemint, and black-eyed susan.
- **Shrubland.** Shrubland is scattered throughout the project area and is generally present in disturbed areas such as road right-of-way. Common species in shrubland include sumac, eastern red-cedar, and dogwoods.
- **Non-Native Grassland.** Non-native grassland is abundant throughout the project area as lawns and road rights-of-way. Non-native grassland is dominated by cool season grasses such as Kentucky bluegrass and smooth brome.

3.11.1.1 Wildlife Habitat Generalist Species

Wildlife species that inhabit agricultural land or developed land are mostly common habitat generalists. Generalist mammal species potentially in the US 14 project area include white-tail deer, striped skunk, gray squirrel, fox squirrel, opossum, raccoon, big brown bat, eastern cottontail, thirteen-lined ground squirrels, several mouse species, coyotes, and red fox. Common bird species adapted to either agricultural land or developed land and potentially in the project area include pheasant, Canada goose, grackle, starling, English sparrow, robin, cardinal, bluejay, and junco.

3.11.1.2 Wildlife Habitat Specialist Species

Several large tracts of forest in the western portion of the project area, specifically mesic forest in the dry bluffs and wet-mesic forest in the Minnesota River bottoms, may provide habitat for several specialist wildlife species. These habitats tend to be more complex than agricultural or developed lands, and as such, provide resources for different, less-common species. Specialist species that may be found in the project area include the Eastern pipistrelle bat, Hairy-tailed bat, Plains pocket gopher, beaver, woodland deer mouse, White-footed mouse, muskrat, gray fox, long-tailed weasel, mink, and in rare cases, mountain lion.

The most notable impacts to upland habitat occur in the West Study Section, particularly near the Minnesota River and surrounding bluffs. The Preferred Alternative avoids many impacts to such habitat.

The larger mesic and wet-mesic forest tracts found in the western portion of the project area may provide nesting and migration stopover habitat for several Neotropical migratory bird species. Large forested tracts provide some protection to migratory birds from forest edge-dwelling predators such as the brown-headed cowbird. However, even the relatively large tracts of floodplain forest along the bottoms of the Minnesota River are fragmented enough to make bird species susceptible to predation.

3.11.2 Environmental Consequences and Mitigation Measures

The Preferred Alternative has the least impact to upland habitat. Alternatives W2 and W3 presented the greatest magnitude of upland forest impacts, with Alternative W2 (top-of-bluff) dividing forest lands both along the steep bluff near the west end and at the Heyman's Creek crossing. Alternative W3 would have impacted the same area at Heyman's Creek as Alternative W2, but would not have divided the western-most woodlands on the bluff.

The most notable impacts to upland habitat will occur in the western portion of the project area. The Preferred Alternative and the other Build Alternatives created impacts to upland forest habitat particularly near the Minnesota River, in the vicinity of Heyman's Creek, and in the bluffs associated with those features.

Upland habitat impacts in the East Study Section are characterized by impacts to forested fencerows or shrubland associated with property lines and roadways. The Preferred Alternative E1 will impact approximately 6.2 acres on the fringes of the largest part of the Swan Lake Wildlife Management Area (WMA) and its related prairie habitat directly along US 14. Alternative E3 would have impacted approximately three acres of a smaller, separate parcel of

the Swan Lake WMA, located on the Swan Lake Outlet, south of US 14. The Preferred Alternative E1 uses the existing US 14 corridor at the WMA. Non transient wildlife at that location has become habituated to the highway. Therefore, additional roadway at that location might not represent a substantial change to the upland habitat and wildlife features of the WMA. The impact of Alternative E3 on the WMA would have been at a location of new highway alignment, representing a disruption to this currently isolated section of the WMA. Increased noise and activity at that new location may have created unsuitable habitat for some species.

The primary impact associated with loss of upland plant communities is loss of wildlife habitat, which serves as a wildlife movement corridor and provides cover for breeding and foraging. Other wildlife impacts caused by removing vegetation and adding highway lanes include increasing the potential for animal-vehicle collisions on the highway and altering the aesthetic and recreational opportunities and values associated with wildlife.

As discussed in Section 3.9, Wetlands and Section 3.14, Public Lands and Recreational Resources, the mitigation required for impacts to wetlands and the Swan Lake WMA under the Preferred Alternative E1 provides opportunities for partnering that would advance the Swan Lake WMA Recovery Plan efforts. Given the nature of the Swan Lake resource, it can be expected that many of the opportunities created by coordination with the DNR will result in mitigation sites with the potential to collectively address wetland, wildlife and upland habitat impacts. Specific mitigation opportunities and locations will be identified as design moves forward and with further coordination with the DNR.

3.12 Threatened and Endangered Species

3.12.1 Affected Environment

3.12.1.1 Federally Listed Species

Section 7 of the Endangered Species Act of 1973, as amended (Act) requires each Federal agency to review any action that it funds, authorizes or carries out to determine whether it may affect threatened, endangered, proposed species or listed critical habitat. Federal agencies must consult with the US Fish and Wildlife Service (FWS) if any such effect may occur as a result of their actions. Consultation with the FWS is not necessary if the proposed action will not directly or indirectly affect listed species or critical habitat.

Listed Species/Critical Habitat

According to the County Distribution of Minnesota's Federally-Listed Threatened, Endangered, Proposed, and Candidate Species list maintained by the FWS, the project counties are known to contain the following:

Brown County: Prairie bush-clover (*Lespedeza leptostachya*), a federally listed threatened species. No designated critical habitat.

Nicollet County: No federally listed species. No designated critical habitat.

Known Occurrences/Determination of Affect:



According to all available data, there are no known occurrences of federally listed threatened, endangered, proposed, candidate species or listed critical habitat within the action area. Therefore it has been determined that the action will have no effect on listed species/ listed critical habitat and no further action is required under the Act. If information becomes available indicating that federally listed species or listed critical habitat may be affected, measures will be taken in accordance with the provisions of the Act.

3.12.1.2 State Listed Species

Minnesota’s endangered flora and fauna have been classified into three status categories: Endangered, Threatened and Special Concern. State law and rules provide special protections against the loss of species classified as endangered or threatened. Special Concern Species are not protected by State law or associated rule, however these species are considered either uncommon in Minnesota or have unique or highly specific habitat requirements. The Minnesota Department of Natural Resources Natural Heritage and Nongame Research Program was contacted requesting information on species protected by the State of Minnesota. A list of the findings is provided in Table F-3-18.

TABLE F-3-18
State Endangered and Threatened Species Documented Within One-Mile of the US 14 Project Area

Common Name	Scientific Name	Group	Status
Wolf’s spike rush	<i>Eleocharis wolffii</i>	Plant	Endangered
Rock Pocketbook	<i>Arcidens confragosus</i>	Mussel	Endangered
Mucket	<i>Actinonaias ligamentina</i>	Mussel	Threatened
Wartyback	<i>Quadrula nodulata</i>	Mussel	Endangered
Yellow sandshell	<i>Lampsilis teres</i>	Mussel	Endangered
Elktoe	<i>Alasmidonta marginata</i>	Mussel	Threatened
Round pigtoe	<i>Pleurobema coccineum</i>	Mussel	Threatened

Source: Natural Heritage Database, accessed in November, 2004

The Wolf’s spikerush was previously known from the east side of the City of Nicollet. However, this plant has not been seen in the area since it was first documented in 1892. Given the absence of observations of this species for more than 100 years, there is no reason to believe the plant exists in the project area. The remaining occurrence records consist of mussel species known to occur in the Minnesota River near and upstream of the City of New Ulm.

3.12.1.3 Bald Eagle

Bald eagle populations have increased substantially over the past twenty years. The FWS proposed to remove the bald eagle from the endangered and threatened species list due to this recovery in 1999 although the official delisting did not occur until 2007. Currently, the bald eagle remains protected under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act.¹¹

One bald eagle nest site has been identified in the general project vicinity.

¹¹ Source: www.fws.gov/midwest/eagle



3.12.2 Environmental Consequences

3.12.2.1 Federally Listed Species

As stated previously, according to all available data, there are no known occurrences of federally listed threatened, endangered, proposed, candidate species or listed critical habitat within the action area. Therefore it has been determined that the action will have no effect on listed species and no further action is required under the Act. If information becomes available indicating that federally-listed species or listed critical habitat may be affected, measures will be taken in accordance with the provisions of the Act.

3.12.2.2 State Listed Species

Based on the occurrence records of state protected species provided by the MNDNR mussels have the greatest potential to be impacted by the construction of the proposed action specifically the work involving the new Minnesota River Bridge. As the project advances MnDOT will work with the MNDNR to determine the appropriate next steps. Measures to avoid, minimize or mitigate impacts will be developed based on the outcome of this coordination.

3.12.2.3 Bald Eagle

The bridge over the Minnesota River and other work on US 14 will be conducted in locations at least 1000 feet away from any known eagle nests. The potential exists for eagles to construct new nests within the project area, nearer to the proposed highway. Construction activities in close proximity to a nest have the potential to interfere with eagles' reproductive success.

3.12.3 Mitigation Measures

3.12.3.1 Federally Listed Species

As stated previously, according to all available data, there are no known occurrences of federally listed threatened, endangered, proposed, candidate species or listed critical habitat within the action area. Therefore it has been determined that the action will have no effect on listed species and no further action is required under the Act.

3.12.3.2 State Listed Species

As stated previously, based on the occurrence records of state protected species provided by the MNDNR mussels have the greatest potential to be impacted by the construction of the proposed action specifically the work involving the new Minnesota River Bridge. As the project advances MnDOT will work with the DNR to determine the appropriate next steps. Measures to avoid, minimize or mitigate impacts will be developed based on the outcome of this coordination.

3.12.3.3 Bald Eagle

MnDOT will work with the FWS and DNR to conduct bald eagle surveys during the field seasons prior to the start of construction. Measures to avoid, minimize or mitigate impacts will be developed based on the outcome of this coordination.

3.13 Cultural Resources-Historic and Archaeological, and Section 106 Evaluation

Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended), requires federal agencies to:

- Identify properties listed on, or eligible for the National Register of Historic Places (NRHP),
- Determine effects of the project on those properties, and
- Consult with the State Historic Preservation Office (SHPO) and interested parties to determine ways to avoid, minimize, or mitigate effects caused by an undertaking.

FHWA is the lead agencies required to address Section 106 requirements under the NHPA for this project. This section describes the historic resources identified in the US 14 project area of potential effect (APE, the geographic limits used for the cultural resource studies, shown on Exhibit F-3-6), and describes the anticipated effects on the resources potentially caused by the No Build Alternative, the Build Alternatives that were not selected, and the FEIS Preferred Alternative.

An historic property is defined as any prehistoric or historic building, structure, site, object, or district included on, or eligible for inclusion on the NRHP. The Code of Federal Regulation (36 CFR 60) defines the criteria used to evaluate the significance of a site, building, district, structure, or object, and its eligibility for listing on the NRHP. To be listed on the NRHP, properties must retain integrity of location, design, setting, materials, workmanship, feeling, association, and have significance in one of several areas of American history under one of the following criterion:

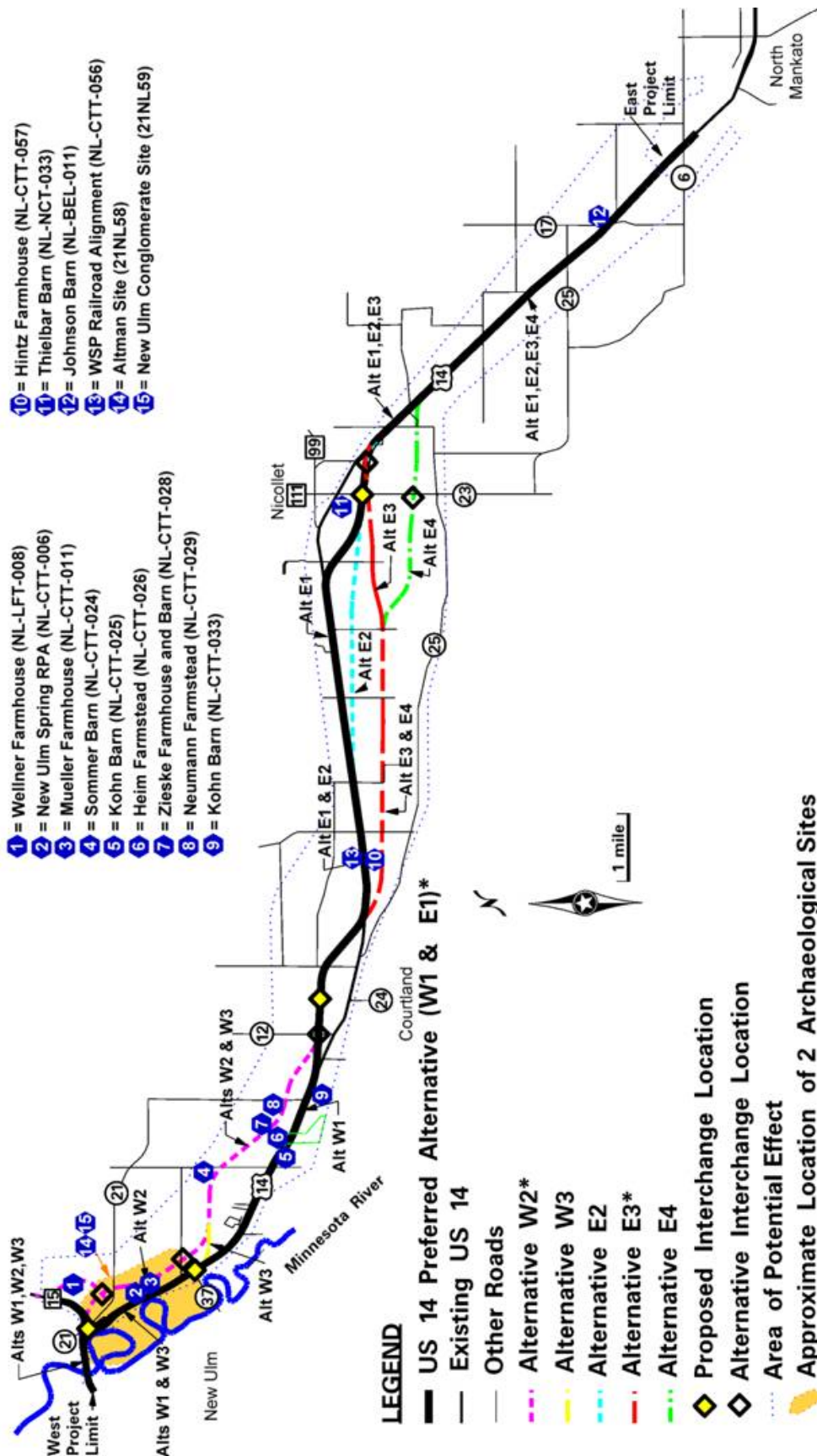
- Criterion A: association with events that have made a significant contribution to the broad patterns of history; or
- Criterion B: association with the lives of persons significant in our past; or
- Criterion C: embodiment of the distinctive characteristics of a type, period, or method of construction, or presentation of the work of a master, possession of high artistic values, or representation of a significant and distinguishable entity whose components may lack individual distinction; or
- Criterion D: the ability to yield information important in prehistory or history.

In addition to the process required under Section 106, historic properties are given protection under Section 4(f) of the 1966 Department of Transportation Act (now codified at 49 USC 303 and 23 USC 138). This legislation provides protection from conversion to a transportation use for publicly owned parks, recreation areas, historic sites (public or private), wildlife and waterfowl refuges. The FHWA may not approve the use of land from any significant (i.e., eligible for the NRHP) historic site unless there is no feasible and prudent alternative and all possible planning has been done to reduce harm to the resource. Complete documentation of Section 4(f) uses is provided in the Final Section 4(f) Evaluation in Appendix A of this FEIS.



West Study Section

East Study Section



- 10 = Hintz Farmhouse (NL-CTT-057)
- 11 = Thielbar Barn (NL-NCT-033)
- 12 = Johnson Barn (NL-BEL-011)
- 13 = WSP Railroad Alignment (NL-CTT-056)
- 14 = Altman Site (21NL58)
- 15 = New Ulm Conglomerate Site (21NL59)

- 1 = Wellner Farmhouse (NL-LFT-008)
- 2 = New Ulm Spring RPA (NL-CTT-006)
- 3 = Mueller Farmhouse (NL-CTT-011)
- 4 = Sommer Barn (NL-CTT-024)
- 5 = Kohn Barn (NL-CTT-025)
- 6 = Heim Farmstead (NL-CTT-026)
- 7 = Zieske Farmhouse and Barn (NL-CTT-028)
- 8 = Neumann Farmstead (NL-CTT-029)
- 9 = Kohn Barn (NL-CTT-033)

LEGEND

- US 14 Preferred Alternative (W1 & E1)*
 - Existing US 14
 - Other Roads
 - Alternative W2*
 - Alternative W3
 - Alternative E2
 - Alternative E3*
 - Alternative E4
 - ◆ Proposed Interchange Location
 - ◆ Alternative Interchange Location
 - ⋯ Area of Potential Effect
 - Approximate Location of 2 Archaeological Sites
- * Also includes overlap with other higher numbered alternatives



US 14 Final EIS
New Ulm to North Mankato

3.13.1 Affected Environment

3.13.1.1 Cultural Resource Studies and Inventory of NRHP Eligible and Listed Resources

The section summarizes the historic resources identified within the APE. The identification and evaluation of these resources are based on detailed field reviews by qualified professionals (who meet the standards of the Secretary of the Interior) and related consultations with the Minnesota SHPO. The cultural resource studies listed below were completed as part of the EIS Preparation:

- *Phase I Archaeological and Geomorphological Survey and Phase II Archaeological Testing of 21NL58, 21NL59 and 21NL134 (October 2005)*
- *Phase I Cultural Resource Survey (CRS) for Trunk Highway 14 West Interregional Corridor Alternative Study – SP 5200-03 (May 2004)*
- *Phase II Evaluation of Historic Structures Along TH 14 Between New Ulm and Mankato, Nicollet County, Minnesota (May 15, 2006)*
- *Phase II National Register Evaluation, Bridge 9200, Brown County (April 2010)*
- *Phase I Archaeological Investigation for the Bridge 9200 Replacement Project, Courtland and New Ulm Townships, Nicollet and Brown Counties, MN (November 2010)*

These studies documented that one resource is already listed on the NRHP and that twenty-five historic properties and two archaeological sites within the APE were determined to be eligible for the NHRP in consultation with the SHPO (see Table F-3-19).

The eligible properties were reviewed following selection of the Preferred Alternative to determine the effect the project would have on each resource. In addition to a physical impact, effects due to noise or visual changes to a setting, or impacts to an associated residence that could cause the building to fall into disuse were considered as negative effects. Changes were made to the proposed alignment to minimize impacts to historic structures where possible. Following these changes, a final determination of effects was sent to SHPO on June 25, 2010 and concurrence on the determinations was sent from SHPO on July 29, 2010 (see Table F-3-19). Eligible properties that have an anticipated Adverse Effect from the US 14 project have had mitigation plans developed. These are found in the Memorandum of Agreement between FHWA, SHPO, and MnDOT summarized in Section 3.13.3 of this FEIS and contained in full in Appendix B.

Table F-3-19 below identifies each of the eligible resources and the effect of the Preferred Alternative on the resource. Effects are identified as either:

- No Effect (NE)
- No Adverse Effect (NAE) - the project will have an effect, but it does not negatively impact the integrity of the site
- Adverse Effect (AE) - the project will in some way diminish the integrity of the site and mitigation has been identified



In addition to Section 106 effects, Table F-3-19 notes whether the project results in a Section 4(f) use of the property. This generally means that land is being purchased from within the contributing area of the historic site.

Table F-3-19
Historic Resources in the Area of Potential Effect

Resource Name (SHPO Inventory Number)	Brief Resource Description	Potential Effect noted in DEIS	Final Effect Determination	Notes
1. Wellner Farmhouse (NL-LFT-008)	Farmhouse built around 1895	Adverse Effect	No Effect	Site is 1400 feet from Preferred Alternative
2. New Ulm Spring Roadside Parking Area (NL-CTT-006)	Former wayside rest area built in 1939 defined by a stone wall within US 14 right-of-way; listed on NRHP.	Adverse Effect & 4(f)**	Adverse Effect	Access to site will be perpetuated for westbound traffic only; Site will remain in MnDOT ownership; Not a 4(f) use**
3. Mueller Farmhouse (NL-CTT-011)	Well-preserved farmhouse built in the early 1900s located on top of the bluffs, above existing US 14.	Adverse Effect	No Adverse Effect	Site is 600 feet from Preferred Alternative
4. Klippstein Barn (NL-CTT-017)*	Raised/basement barn built around 1890.	No Adverse Effect	No Adverse Effect	Site is 2000 feet from Preferred Alternative
5. Kohn Log Farmhouse (NL-CTT-021)	Log farmhouse built around 1870; largely unaltered and believed to stand on its original site.	No Adverse Effect	No Adverse Effect	Site is 1500 feet from Preferred Alternative
6. Sommer Barn (NL-CTT-024)*	Barn and unusually wide clay tile silo built around 1890.	Adverse Effect	No Effect	Site is 4250 feet from Preferred Alternative
7. Kohn Barn (NL-CTT-025)*	Barn and attached silo built in the 1890s.	Adverse Effect & 4(f)**	Adverse Effect	No direct impact to barn or contributing area, but proximity to barn affects setting and proximity to house could result in disuse; Not a 4(f) use**
8. Heim Farmstead (NL-CTT-026)*	Historic farmstead, barn, and adjacent lands (85.5 acres)	Adverse Effect & 4(f)**	Adverse Effect & 4(f)**	Expansion on existing alignment affects about four acres; A 4(f) use**
9. Zieske Farmhouse and Barn (NL-CTT-028)*	Farmhouse and barn, each individually eligible for the National Register.	Adverse Effect	No Effect	Site is 2100 feet from Preferred Alternative

Table F-3-19

Historic Resources in the Area of Potential Effect

Resource Name (SHPO Inventory Number)	Brief Resource Description	Potential Effect noted in DEIS	Final Effect Deter- mination	Notes
10. Neumann Farmstead (NL-CTT-029)*	Historic structures built around 1900 and 11.6 acres of adjacent lands	Adverse Effect	No Effect	Site is 1900 feet from Preferred Alternative
11. Kohn Barn (NL-CTT-033)*	Raised/basement barn and attached silo built around 1895	Adverse Effect	Adverse Effect	Proximity to residence (120 feet from right of way) could affect continued barn maintenance; Not a 4(f) use**
12. Seeman Barn (NL-CTT-052)*	Raised/basement barn built around 1880. One of the four barns (out of 29) built with rare curved timbers.	No Adverse Effect	No Adverse Effect	Site is 3000 feet from Preferred Alternative
13. Bode Granary (NL-CTT-051)	Timber frame granary built around 1900.	No Adverse Effect	No Adverse Effect	Site is 1600 feet from Preferred Alternative
14. Meyer Barn (NL-CTT-050)*	Raised/basement barn built around 1880. One of four barns (out of 29) built with rare curved timbers; only barn with rare gunstock posts.	No Effect	No Effect	Site is 3600 feet from Preferred Alternative
15. Studtmann Barn (NL-CTT-047)*	Raised/basement barn built around 1905; includes attached concrete stave silo.	No Effect	No Effect	Site is one mile from Preferred Alternative
16. Hintz Farmhouse (NL-CTT-057)	Two-story brick farmhouse built around 1930; well-developed, intact example of the Colonial Revival style.	Adverse Effect & 4(f)**	No Adverse Effect	The highway will be expanded to the north so there will be no right of way encroachment on contributing area; Access will be maintained; Not a 4(f) use**
17. Bruns Farmstead (NL-CTT-058)*	An historic farmstead including the Bruns Barn—a raised/basement barn built around 1890.	No Adverse Effect	No Adverse Effect	No impact to historic farmstead, minimal right of way from current farm acreage
18. Bode Barn (NL-NCT-011)*	Raised/basement barn (built around 1880) and clay tile silo.	No Adverse Effect	No Effect	Site is 1.25 miles from Preferred Alternative
19. Bode Farmstead (NL-NCT-008)*	An historic farmstead, with barn (built around 1885) and clay tile silo; one of four barns (out of 29) built with	No Adverse Effect	No Effect	Site is one mile from Preferred Alternative

Table F-3-19

Historic Resources in the Area of Potential Effect

Resource Name (SHPO Inventory Number)	Brief Resource Description	Potential Effect noted in DEIS	Final Effect Determination	Notes
	rare curved timbers.			
20. Thom Farmstead (NL-NCT-021)*	Farmstead, a raised/basement barn built around 1890 and 18.9 acres of adjacent lands.	No Adverse Effect	No Adverse Effect	Site is 1.25 miles from Preferred Alternative
21. Dahms Barn (NL-NCT-034)*	A raised/basement barn built around 1895.	No Adverse Effect	No Adverse Effect	Site is 1650 feet from Preferred Alternative
22. Thielbar Barn (NL-NCT-033)*	A raised/basement barn (built around 1905) and a concrete stave silo.	Adverse Effect	No Adverse Effect	No acreage will be taken for project, area is already semi-urbanized
23. Johnson Barn (NL-BEL-011)	Barn and attached silo built around 1920; a well-preserved example of rock-faced concrete block construction.	Adverse Effect	Adverse Effect	No direct impact to barn or contributing area, but proximity to barn affects setting and proximity to house could result in disuse; Not a 4(f) use**
24. Budde Farmstead (NL-BEL-015)	An historic farmstead, the boundaries of which include approximately 15 structures.	No Adverse Effect	No Adverse Effect	Site is 1500 feet from Preferred Alternative
25. Winona and St. Peter Railroad Courtland Segment (NL-CTT-056) Nicollet Segment (NL-CTT-001), and four stone box culverts (NL-CTT-101, -106, -107, and -108)	Railroad line consisting of remnant railroad grade and structures.	Adverse Effect & 4(f)**	Adverse Effect & 4(f)**	Three stone box culverts will be removed by construction; A 4(f) use**
1. Altman Site (21NL58)	Archaeological site in the Minnesota River Valley near US 14.	Adverse Effect	Adverse Effect	Construction will be over part of the site, preservation in place not warranted, not a 4(f) use**
2 New Ulm Conglomerate Site (21NL59)	Archaeological site in the Minnesota River Valley near US 14.	Adverse Effect & 4(f)**	No Adverse Effect	Site will be avoided by design. Not a 4(f) use**
* Indicates a timber frame barn (see Section 3.13.1.2)				
** See the Final Section 4(f) Evaluation in Appendix A of this FEIS				

3.13.1.2 Importance of Timber Frame Barns within Project Area

Several of the historic architectural resources listed in Table F- 3-19 are timber frame barns (identified in Table F-3-19 with an asterisk (*) next to the property name). The prevalence of older gable-roof three-bay English type barns along this corridor prompted the examination of these barns. These “raised” or “basement” barns are likely second-generation barns, built to replace earlier, smaller, settlement-era barns. The barns were likely originally built as general-purpose or “combination” structures used for storing crops and housing livestock. Many of the barns display distinctive characteristics of German immigrant construction that are now rare in Minnesota, including scribe carpentry (individually measured and cut framing members), *fachwerk*-style square panel framing in the walls, and diagonal corner braces. All of these barns have undergone some level of alteration. Changes range from the addition of small silos and milk houses; to larger-scale expansions.¹² Each barn’s physical integrity was assessed for determining eligibility for the NRHP. Overall, twenty-nine timber frame barns were reviewed. Sixteen were recommended as eligible for the NRHP. Seven barns had potential for a Section 106 adverse effect under the Build Alternatives and three will ultimately experience an adverse effect under the Preferred Alternative, but none will be demolished by the project.

3.13.1.3 Description of Historic Architectural Resources

This section describes thirteen historic resources that could have had Section 106 adverse effects under one or more of the Build Alternatives. To keep the discussion concise, NRHP eligible resources that would not have had potential Section 106 adverse effect from one or more Build Alternatives are not further discussed.

1. Wellner Farmhouse (NL-CTT-008)

Location 42924 577th Avenue, New Ulm, MN 56073; [Lafayette township (T110N R30W), Section 15, SE ¼ of SW ¼]

Access to Property Driveway onto 577th Avenue

This resource, built around 1895, is a well-preserved example of a turn of the century brick farmhouse of a sophisticated design that demonstrates associations with the late 19th and early 20th century farming in the Minnesota Valley region. The farmhouse and the surrounding landscaping were therefore recommended as eligible for the NRHP under Criteria A and/or C. The barn and the rest of the farmstead were not recommended as eligible. The secluded setting of this home on top-of the bluff enhances the context of this rural, residential home. The structure is a privately owned rural residential home that is part of an operating farmstead.

2. New Ulm Spring Roadside Parking Area (RPA) (NL-CTT-006)¹³

Location North side of US 14, approximately one mile southeast of US 14/MN 15 intersection [Courtland Twp, (T110N R30W), Sec 22].

Access to Resource Direct pull-off on the north side of US 14

¹² Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*

¹³ Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato*, p. 3.26

The New Ulm Spring RPA was designed by noted landscape architect, A.R. Nichols and built in 1938-1939 by the National Youth Administration (NYA) as part of President Roosevelt's New Deal and the Roadside Development Division of the Minnesota Department of Highways. The RPA was determined eligible for the NRHP as part of the *MnDOT Historic Roadside Development Structures Inventory*, completed in 1998. Reasons for inclusion on the NRHP include: unique construction; exemplification of NYA works in cooperation with the Minnesota Department of Highways; and for its design and use of indigenous materials. The *Roadside Development Structures Inventory* also noted that compared to the other walls inventoried, the New Ulm RPA is an "outstanding" resource.

The RPA was originally built as a wayside rest area for drivers to stop and use an artesian well, which is no longer functional. The 4.6 acre site includes several structures – all constructed from locally quarried red quartzite – including a retaining wall (~156 feet long), 2 sets of stone steps leading into the wooded hillside, and a stone picnic fireplace in the wooded hillside. The stone structures are in disrepair. The steps and fireplace are obscured by brush. Based on observations and reports from local residents and officials, this site is rarely visited for interpretive reasons nor is it used as a rest area. The RPA is located within MnDOT's US 14 right-of-way.

3. Mueller Farmhouse (NL-CTT-011)¹⁴

Location 43938 Spruce Haven Lane [Courtland Twp (T110N R30W), Section 22, SW ¼ of SW ¼]
Access to Resource Direct access from Spruce Haven Lane (off CR 21)

Built in 1906, the Mueller Farmhouse is a well-preserved, 2 ½ stories and Queen Anne style brick house, originally constructed on a large farm owned by Henry Mueller. The house has excellent integrity in design, workmanship, and materials and is one of the largest turn of the century farmhouses within the US 14 study area. It is believed that the Mueller family owned this land from the 1860s through the 1980s.

The Farmhouse is eligible for the NRHP under Criteria A and/or C. The secluded setting of this home on top-of-the-bluff enhances the context of this rural residential home. The building fits within the agricultural lifestyle of the Minnesota River area, specifically within the secluded top-of-bluff community that also includes the Wellner Farmhouse (NL-CTT-008). The remainder of the farmstead has lost physical integrity; therefore, boundaries of the eligible property include the house, garage, lawn, grove, driveway, and other landscape elements including trees, shrubs, and other ornamental plantings.

4. Sommer Barn (NL-CTT-024)¹⁵

Location 561st Ave. Courtland, MN 56021 [(T110N R30W), Sec 26, SE ¼ of SE ¼]
Access to Resource Direct turnoff on west side of 561st Avenue

Originally built by a German immigrant family circa 1890, the barn's construction details are characteristic of traditional German timber framing, which is currently understood to be rare in Minnesota. These details include dense *fachwerk* square panel wall framing, diagonal corner

¹⁴ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.27

¹⁵ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.49

bracing, and evidence of scribe carpentry. An early clay tile silo that is connected to the barn is unusually wide and is a rare example of this type of silo. The Sommer Barn is one of the 29 German timber frame barns assessed within the US 14 study area. Although the barn has been altered, it was found to be eligible for the NRHP under Criterion A and/or C for its conveyance of rare construction details and association with German immigration to the rural Minnesota River Valley.

5. Kohn Barn (NL-CTT-025)¹⁶

Location 54350 US 14 Courtland, MN 56021 [(T110N R30W), Sec 36, SW ¼ of SW ¼]
Access to Resource Direct turnoff on south side of US 14

Originally built by a German immigrant family circa 1890, the barn's construction details are characteristic of traditional German timber framing, which is currently understood to be rare in Minnesota. These details include dense *fachwerk* square panel wall framing, diagonal corner bracing, and evidence of scribe carpentry. The only addition to this barn is a silo, making this one of the least altered barns in the area. A portion of the 200 acre parcel on which the barn is located encompasses the boundaries of the Heim Farmstead (NL-CTT-026).

The Kohn Barn is one of the 29 German timber frame barns assessed within the US 14 study area. The barn is eligible for the NRHP under Criterion A and/or C, primarily because the barn's rare construction details demonstrate a connection with German immigration to the rural Minnesota River Valley. The barn itself and approximately 100 feet all around were identified as the eligible area. Currently, the barn is in a state of disrepair.

6. Heim Farmstead (NL-CTT-026)¹⁷

Location 55712 US 14 [Courtland Township (T109N), Section 1, NE ¼ of NW ¼]
Access to Resource Direct access from driveway on north side of US 14.

The Heim farmstead was recommended as eligible for the NRHP. Approximately 85.5 acres of the original 205 acre farmstead have retained enough integrity to continue to convey associations with late 19th and early- to mid-20th century farming in the region. The eligible farmstead contains a small acreage on the north side of US 14 and part of a larger farm on the south side of US 14. The eligible farmstead currently has different property owners on the north and south sides of the highway. The northern part of the farmstead includes the NRHP eligible barn. Built by a German immigrant family in 1907, the barn is a late example of a timber frame construction that displays characteristics of traditional German timber framing, including dense *fachwerk* square panel wall framing and diagonal corner bracing. This barn has only undergone an early balloon frame addition. The condition of the barn is sufficient enough to continue to convey association of German immigration to the rural Minnesota River valley. Although the phase I analysis recommended the barn as NRHP eligible, the phase II analysis found the farmstead associated with the barn as eligible. Thus the eligible site contains 85.5 acres located both on the north and south side of existing us 14.

7. Zieske Farmhouse and Zieske Barn (NL-CTT-028)¹⁸

¹⁶ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.52

¹⁷ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.56

¹⁸ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.61.



Location 55299 456th Lane, Courtland, MN 56021 [Courtland Township [(T110N R30W), Sec. 36, NW ¼ of SE ¼]

Access to Resource Access to US 14 is provided by a long lane off of 551st Avenue

The Zieske Farmhouse and the Zieske Barn were determined individually eligible for the NRHP under Criteria A and/or C because both buildings have retained sufficient integrity for conveying association with German immigration, as well as late 19th and early 20th century farming in the Minnesota Valley region. Boundaries recommended for the two eligible properties would individually encompass the farmhouse and the barn (with the attached silo) but not include the rest of the farmstead, which has lost integrity for conveying association with late 19th and early 20th century farming in the region.

The Zieske Barn is one of the 29 German timber frame barns assessed within the US 14 study area. The raised or basement barn, built by a German immigrant family circa 1890, displays characteristics of traditional German timber framing, including diagonal corner bracing and evidence of scribe carpentry. The barn has only undergone an early balloon frame addition.

8. Neumann Farmstead (NL-CTT-029)¹⁹

Location 45928 551st Avenue, Courtland, MN 56021 [Courtland Township (T110N R30W), Sec 36, SE ¼ of SE ¼]

Access to Resource Access provided by a long lane off of 551st Avenue

Just less than 12 acres of the Neumann Farmstead were recommended for eligibility on the NRHP under Criterion A and/or C. This included the Neumann Barn, the surrounding pasture area, and the adjacent pond. The barn's construction details are intact enough to demonstrate a connection to German immigration to the rural Minnesota River Valley. The rest of the farmstead conveys associations with late 19th and early- to mid-20th century farming in the Minnesota Valley region.

Built around 1900, the Neumann Barn displays European craftsmanship of the German tradition. Despite alterations, the barn's rare construction details convey and its association with German immigration to the rural Minnesota River Valley. This eligible barn on this property is one of the 29 German timber frame barns within the US 14 study area. This barn has undergone the addition of a balloon frame addition, silo, and small milk house.

9. Kohn Barn (NL-CTT-033)²⁰

Location 46266 547th Lane, Courtland, MN 56021 [Courtland Township (T109N R29W), Sec 6, SW ¼ of NW ¼]

Access to Resource Direct access from the south side of US 14

Built around 1895, this barn and attached concrete stave silo display characteristics of traditional German timber framing, which is currently understood to be rare in Minnesota. Evidence of scribe carpentry and other details suggest a skilled craftsman building in European tradition.

¹⁹ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.67.

²⁰ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.75.

The Kohn Barn is one of the 29 German timber frame barns assessed within the US 14 study area. Despite alternations, the barn is considered eligible for the NHRP under Criterion A and/or C based on the conveyance of rare construction details and associations with German immigration to the rural Minnesota River Valley.

10. Hintz Farmhouse (NL-CTT-057)²¹

Location 51621 US 14, Courtland, MN 56021 [Courtland Township (T109N R29W), Sec 10, SE ¼ or NW ¼]

Access to Resource Direct access from the south side of US 14

Built around 1930, this two-story, brick farmhouse is reflective of the Colonial Revival style. It may also be associated with the early 20th century progressive movement to improve American farmhouses, farm life, and farm women’s workload through modern farmhouse design and improved aesthetics. Based on these observations, the Hintz Farmhouse including the garage, the driveway, and the lawn, is eligible for the NRHP under Criterion C. The rest of the farmstead has lost physical integrity.

11. Thielbar Barn (NL-NCT-033)²²

Location 46928 CR 23, Nicollet, MN 56074 [Nicollet Township (T109N R28W), Sec 4, SE ¼ of SE ¼]

Access to Resource US 14 accessed via County Road 23, south of US 14

Originally built by a German immigrant family circa 1905, the barn’s and the attached silo’s construction details are characteristic of traditional German timber framing, which is currently understood to be rare in Minnesota. These details include dense *fachwerk* square panel wall framing, and diagonal corner bracing. The barn is also unusual because timber framework extends down below the mow floor.

The Thielbar Barn is one of the 29 German timber frame barns assessed within the US 14 study area. The barn is eligible for the NRHP under Criterion A and/or C, primarily because the barn’s rare construction details demonstrate a connection with German immigration to the rural Minnesota River Valley.

12. Johnson Barn (NL-BEL-011)²³

Location 51621 US 14, Courtland, MN 56021 [Belgrade Township (T109N R27W), Sec 29, SW ¼ pf SW ¼]

Access to Resource US 14 accessed via County Road 17, north of US 14

The Johnson Barn, a 39’ x 100’ dairy barn with a Gothic arch roof and an attached silo are eligible for the National Register under Criterion A and/or C. The dairy barn (circa 1920) and silo are both unusually well-preserved examples of rockfaced concrete block construction. The barn is a large example of its type and retains many of its mechanical elements, including stanchions and ventilation systems. This eligible barn on this property is one of the 29 German

²¹ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.109.

²² Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.205.

²³ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.15.

timber frame barns within the US 14 study area. The rest of the farmstead lacks historic integrity (primarily because the farmhouse was recently replaced) and is not recommended as eligible. Only the barn and 100 feet all around it were identified as contributing to the historic property.

13. Winona and Saint Peter Railroad (NL-NCT-001 and NL-CTT-056)²⁴

Location Throughout project area adjacent to US 14 between Courtland and Nicollet
Access to Resource Varies by location

The Winona and St. Peter (WSP) Railroad line now consists of remnant railroad grade and structures (culverts and bridge abutments). The now-dismantled railroad was originally built as an extension from St. Peter to New Ulm in 1872. After many decades of service, the tracks in Nicollet County were removed in 1973. While various elements can be inventoried separately, the WSP Railroad is linear in nature and is thus also described as a corridor (see Exhibit F-A-2). It is also known as the Chicago and Northwestern Railway. The individual elements near the US 14 corridor include: the Courtland Segment (NL-CTT-056), the Nicollet Segment (NL-CTT-001), and four stone box culverts (NL-CTT-101, -106, -107, and -108). The rail line also includes other structures located well outside the area of potential effect. Generally, the line in the study area runs south of Courtland, joins the existing US Highway 14 corridor east of Courtland and runs along the highway's north side, where the railbed is typically not present, having been altered by agricultural activity. Just west of Nicollet, the WSP line angles toward the northeast and away from US 14 as the highway diverges toward the southeast.

The WSP Railroad line in the US 14 study area is not as intact or visible as other segments of the same line outside the study area. In 2000, consulting historians (AHR and Hess, Roise) recommended that, "the entire historic [WSP] line across the state of Minnesota should be listed as a linear district" (i.e. eligible for the National Register). It should be noted that the AHR survey did not include the segment through Nicollet County. A later Phase II Evaluation (Gemini, 2006) found, "...the Courtland and Nicollet township segments of the Winona and St. Peter railroad line to not retain sufficient integrity to merit becoming part of the NRHP-eligible historic district recommended by the AHR survey. However, the line as a whole is an eligible resource and it has been determined that the individual pieces, regardless of the integrity of the segment are contributing elements.

3.13.1.4 Description of Archaeological Resources

Altman Site (21NL58)²⁵

This approximately six acre site is located to the east of the Minnesota River and to the west of the US 14 corridor in the Minnesota River valley bluff. A portion of the site is privately owned, while the other part of the site is located within US 14 right-of-way, which is owned by MnDOT.

The site contains intact, deeply buried animal remains and artifacts that indicate the site was likely Archaic-period procurement and processing (butchering) site. The overall integrity of the archaeological resources at this site is very good, including the preservation of bone and shell within the deposits. Because the site is deeply buried, it has not been affected by plowing or erosion. This site is recommended as eligible for listing on the NRHP under Criterion A for its association with early occupation of the Minnesota River valley; and under Criterion D for its

²⁴ Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, p. 3.133-138.

²⁵ Source: TH 14—New Ulm to North Mankato Archaeological Survey, Nicollet County Minnesota, (October 2005).



ability assist with answering important archaeological research questions concerning the distribution and character of such sites (e.g., providing insights into subsistence patterns, seasonality, and technologies used at that time). The site does not warrant preservation in place.

New Ulm Conglomerate Archaeological Site (21NL59)²⁶

Site 21NL59 is an ancient tool-making and camp site consisting of a precontact artifact scatter with intact subsurface deposits surrounding a Sioux Quartzite outcrop known as the “New Ulm Conglomerate.” Artifacts found at the site (including lithics of raw materials from the outcrop and utilized cobbles), indicate that the site was a location for quarrying and lithic reduction activities. Also, the New Ulm Conglomerate is one of only two surface exposures of the Sioux Quartzite basal conglomerate within Minnesota. This makes the site important for providing an understanding of Minnesota geology. The site is recommended as eligible for listing on the NRHP under Criteria A for its role as a local lithic quarry site within the context of the precontact settlement of the Minnesota River valley and as a feature that is important for its contributions to the study of Minnesota’s geology. The site is owned by a combination of multiple private property owners, and MnDOT (part of the site is located within US 14 right-of-way). The site does warrant preservation in place, making it a Section 4(f) resource.

3.13.2 Environmental Consequences—Potential Section 106 Adverse Effects

This section discusses the adverse effects to eligible cultural properties under Section 106 of the Historic Preservation Act. This section contains information on the impact of the Preferred Alternative, as well as the anticipated impact of the other Build Alternatives.

3.13.2.1 Effects on Historic Architectural Resources

This section describes the effect that the Preferred Alternative will have on the thirteen historic resources that could have had Section 106 adverse effects under one or more of the Build Alternatives.

1. Wellner Farmhouse (NL-CTT-008)

The Wellner Farmhouse has been determined to have No Effect from the US 14 Preferred Alternative. The farmhouse is approximately 1250 feet from MN 15.

Under Alternative W2, MN 15 would be realigned along 577th Avenue, which is currently a two-lane gravel road that passes directly in front of the Wellner Farmhouse. The realigned MN 15 would be a two-lane, paved, state highway that would connect to US 14. Based on the farmhouse’s eligibility under Criterion A and/or C, the realigned MN 15, would adversely affect the characteristics that qualify the farmhouse for the National Register. The existing setting, which “conveys a sense” of a historic farmstead, would be impacted by increased noise levels from the highway (which would carry considerably more traffic than 577th Avenue now carries). Additionally, current views of agricultural fields and rural residences seen from the front of the house would be altered by the highway.

2. New Ulm Spring Roadside Parking Area (RPA) (NL-CTT-006)

²⁶ Source: TH 14—New Ulm to North Mankato Archaeological Survey, Nicollet County Minnesota, (October 2005).

At the time the DEIS and Draft Section 4(f) Evaluation were circulated, it was anticipated that either Alternative W1 or W3 would physically encroach into the site, and necessitate closing the present pull off and parking area. The Preferred Alternative has been shifted in a southerly direction, which will avoid any encroachment into the RPA. This design shift will allow for the construction of a westbound pull off lane, a small parking area, and a westbound acceleration lane. The parking area surface will be gravel to match the existing condition, or otherwise as determined through further coordination. To minimize impacts to the floodplain and wetlands, however, the access lane will encroach some eight feet on the site, resulting in a determination of Adverse Effect.

Existing US 14 would have been turned back to Nicollet County under Alternative W2 and the New Ulm Spring Roadside Parking Area would have been part of that turnback.

3. Mueller Farmhouse (NL-CTT-011)

It has been determined that the Mueller Farmhouse will experience No Adverse Effect from the US 14 Preferred Alternative. The farmhouse is located approximately 600 feet from the US 14 Preferred Alternative.

Alternative W2 would place a four-lane highway in close proximity to the front of the Mueller Farmhouse which is currently located near the dead-end of a gravel road. Based on its eligibility under Criterion A and/or C, introduction of the new highway would have adversely affected the characteristics that qualify the farmhouse for the National Register. Specifically, the setting that “conveys a sense” of a historic farmhouse would have been disturbed. Also, the existing views of rural areas from the front of the house would have been replaced by views of a four lane highway.

4. Sommer Barn (NL-CTT-024)

It has been determined that the Sommer Barn will experience No Effect from the US 14 Preferred Alternative. The barn is located approximately 4250 feet from the US 14 Preferred Alternative.

Based on the resources’ eligibility under Criterion A and/or C, the Alternative W2/W3 alignment past the Barn would have adversely affected the characteristics that qualify these resources for the National Register. The noise and visual changes the highway would introduce to this rural area would have adversely affected the agricultural setting that conveys its associations with German immigration to the rural Minnesota River Valley.

5. Kohn Barn (NL-CTT-025)

It has been determined that the Kohn Barn will experience an Adverse Effect from the US 14 Preferred Alternative. The new right of way will come within 115 feet of the barn and the house. The combination of the changing setting and the potential for the site to be abandoned caused the determination.

There would have been no effect under Alternatives W2 or W3.

6. Helm Farmstead (NL-CTT-026)

The Preferred Alternative will widen US 14 to the south, avoiding the northern parcel which contains the house, barn and other outbuildings. The south parcel is presently partly farmed and partly being mined. It is anticipated that widening to the south will not adversely affect the



land use on the south side of the highway because access will be maintained, though it will be modified to improve safety in the area of Minnesota Valley Lutheran High School. Access to the house and barn will be perpetuated along with access to three other residences by using the existing roadway as a frontage road. The total land used will be 4.5 acres from the 85.5 acre site.

Based on its eligibility under Criterion A and/or C, the farmstead acreage required for widening of US 14 to four lanes would adversely affect the property's ability to illustrate farming in this region during the late 19th and early- to mid-20th century by affecting the setting and composition of the farmstead. The Heim Farmstead will experience an Adverse Effect from the US 14 Preferred Alternative.

There would have been no effect under Alternatives W2 or W3.

7. Zieske Farmhouse and Zieske Barn (NL-CTT-028)

It has been determined that the Zieske Farmhouse and Zieske Barn will experience No Effect from the US 14 Preferred Alternative. The property is located more than 2000 feet from the US 14 Preferred Alternative.

The alignment for Alternatives W2 and W3 shown in the DEIS there would have been an adverse effect, but the alignment could potentially have been shifted northward to avoid such a determination.

8. Neumann Farmstead (NL-CTT-029)

It has been determined that the Neumann Farmstead will experience No Effect from the US 14 Preferred Alternative. The barn is located approximately 1900 feet from the US 14 Preferred Alternative.

The alignment for Alternatives W2 and W3 shown in the DEIS there would have been an adverse effect, but the alignment could potentially have been shifted northward to avoid such a determination.

9. Kohn Barn (NL-CTT-033)

It has been determined that the Kohn Barn will experience an Adverse Effect from the US 14 Preferred Alternative. The new right of way will encroach some 120 feet into the yard causing the right of way to be about 100 feet from the house, creating a possibility that the site will be abandoned.

There would have been no effect under Alternatives W2 or W3.

10. Hintz Farmhouse (NL-CTT-057)

It has been determined that the Hintz Farmhouse will experience No Adverse Effect from the US 14 Preferred Alternative. The new roadway will be shifted northward to prevent any encroachment into the eligible boundaries.

Alternative E2 would also have had no adverse effect, while E3 and E4 would have no effect.

11. Thielbar Barn (NL-NCT-033)

It has been determined that the Thielbar Barn will experience No Adverse Effect from the US 14 Preferred Alternative. The barn is located approximately 1300 feet from the US 14 Preferred



Alternative, and 450 feet from County Road 23. Conversion of CR 23 to MN 111 north of the intersection will not result in an encroachment on the historic property.

Alternatives E2, E3, and E4 would also have had no adverse effect.

12. Johnson Barn (NL-BEL-011)

It has been determined that the Johnson Barn will experience an Adverse Effect from the US 14 Preferred Alternative. The new right of way will be about 120 feet from the house and the new lanes about 250 from the barn. The combination of changing setting and possibility that the site will be abandoned resulted in the determination.

All of the easterly Build Alternatives would have the same adverse effect.

13. Winona and Saint Peter Railroad (NL-NCT-001 and NL-CTT-056)

It has been determined that the Preferred Alternative will have an Adverse Effect on the WSP Railroad because three stone box culverts (NL-CTT-106, -107, -108) will be destroyed by the project.

Alternative E2 would also have had an adverse effect, while Alternatives E3 and E4 would have no effect.

3.13.2.2 Effects on Archaeological Resources

Altman Site (21NL58)

It has been determined that the Altman Archaeological Site will experience an Adverse Effect from the US 14 Preferred Alternative. The site is located directly adjacent to existing US 14, and may extend to the area beneath the existing highway.

Alternative W3 would have the same adverse effect as the Preferred Alternative, while Alternative W2 would have had no effect.

New Ulm Conglomerate Archaeological Site (21NL59)

It has been determined that the New Ulm Conglomerate Site will experience No Adverse Effect from the US 14 Preferred Alternative. The quartzite outcropping on the site will be avoided by the US 14 Preferred Alternative, and protected during the construction period. The site was investigated by a Phase II Archaeological Testing. The site is adjacent to both US 14 and CR 37, in an area proposed for a possible interchange. As a result of the test results, following the Phase I testing, the mainlines of both US 14 and CR 37 have been slightly shifted, allowing the proposed interchange ramps to be shifted as well. These design changes result in the area of the positive test results being avoided. As a result, No Adverse Effect is anticipated.

Alternative W3 could likely have been also redesigned to avoid the site and resulted in a determination of no adverse effect. Alternative W2 would have had no effect.

3.13.2.3 Comparison of Impacts

Section 106 adverse effects for each of the Build Alternatives are summarized below in Table F-3-20.



TABLE F-3-20

Comparison of Section 106 Adverse Effects by Alternative—West Study Section

	Preferred Alternative W1	Alt. W2	Alt. W3
Section 106 Adverse Effects by Alternative	4 Resources - New Ulm Spring Roadside Parking Area (NL-CTT-006) - Kohn Barn (NL-CTT-025) - Heim Farmstead (NL-CTT-026) - Kohn Barn (NL-CTT-033)	5 Resources - Wellner Farmhouse (NL-LFT-008) - Mueller Farmhouse (NL-CTT-011) - Sommer Barn (NL-CTT-024) - Zieske Farmhouse and Barn (NL-CTT-028) - Neumann Farmstead (NL-CTT-029)	4 Resources - New Ulm Spring Roadside Parking Area (NL-CTT-006) - Sommer Barn (NL-CTT-024) - Zieske Farmhouse and Barn (NL-CTT-028) - Neumann Farmstead (NL-CTT-029)

Comparison of Section 106 Adverse Effects by Alternative—East Study Section

	Pref. Alt. E1	Alt. E2	Alt. E3	Alt. E4
Section 106 Adverse Effects by Alternative	2 Resources - Johnson Barn (NL-BEL-011) - WSP RR (NL-CTT-056)	2 Resources - Johnson Barn (NL-BEL-011) - WSP RR (NL-CTT-056)	1 Resource - Johnson Barn (NL-BEL-011)	1 Resource - Johnson Barn (NL-BEL-011)

3.13.3 Mitigation Measures

A Memorandum of Agreement (aka Programmatic Agreement) has been prepared and signed by FHWA, SHPO and MnDOT to provide for mitigation for the adverse effects to the NRHP-listed or eligible resources affected by the preferred alternative. That agreement is included in Appendix B of this FEIS and the terms of the agreement are copied here.

1. Terms

(A) MnDOT will complete a study of timber-frame barns in the project area that exhibit German influence in their design and construction. The scope and requirements of the study will be developed through consultation between the MnDOT and the SHPO. This study will be completed by an historian who meets the Secretary of Interior’s Professional standards for historian. MnDOT will submit the completed documentation to the SHPO for approval.

(B) MnDOT will complete a Level I documentation of the Winona and St. Peter Railroad stone culvert NL-CTT-101 to the standards of the *Minnesota Historic Property Record Guidelines* developed by the SHPO (revised June 2009). The documentation will be completed by an historian who meets the Secretary of Interior’s Professional Standards for historian. MnDOT will submit the completed documentation to the SHPO for approval.

(C) MnDOT will complete a National Register nomination for the New Ulm Wayside (NL-CTT-006). The nomination will be completed by an historian who meets the Secretary of Interior’s

Professional Standards for historian. MnDOT will submit the completed documentation to the SHPO for approval.

(D) A data recovery plan for the Altman Site (21NL58) will be developed by MnDOT CRU [Cultural Resources Unit] and submitted to MnSHPO for its review and concurrence. MnDOT will submit the final version of the plan to MnSHPO. The MnDOT District 7 project manager will notify the CRU in a time frame that allows for the necessary reviews of the data recovery plan and allows time for the completion of the data recovery before construction begins near the Altman site. MnDOT shall ensure that all materials and records resulting from the data recovery are curated at the Minnesota Historical Society in accordance with 36 CFR Part 79. MnDOT will submit the draft report of the data recovery excavations to MnSHPO for review and concurrence within four years from the time the construction project is awarded.

(E) MnDOT will work with the construction contractor to protect unevaluated portions of the Altman Site (21NL 58). This will include provisions in the construction documents and plans to ensure that construction will not extend beyond the boundaries of the archaeological survey area and that temporary fencing will be erected to protect undisturbed portions of the site adjacent to construction or construction-related activities (i.e., storage, stockpiling, etc.). Construction documents and plans containing these provisions will be submitted to the MnDOT CRU and the MnSHPO for review and concurrence prior to the start of construction. The agreement allows MnDOT four years to complete the work specified except for the data recovery at the Altman Site because that will occur at the time of construction.

3.14 Public Lands and Recreational Resources

3.14.1 Affected Environment

A variety of public lands are found in the project area warranting consideration under Section 4(f) of the DOT Act and under Section 6(f) of the Land and Water Conservation Act. Also, as noted in Section 3.7.1, the Minnesota River in the study area is included on the National Park Service's Nationwide Rivers Inventory (NRI), and is designated as a State Canoe and Boating River. After carefully developing and reviewing project alternatives, three such properties required additional investigation to assess a potential for adverse impacts. The subsections below describe details about each resource, including eligibility as a Section 4(f) or Section 6(f) resource.

1) Minnecon Park & Boat Landing

Minnecon Park is located along the Minnesota River approximately 350 feet downstream (south) of the US 14 Minnesota River Bridge in New Ulm. The park is sited on a section of "old US 14" that was turned over to the City of New Ulm in 1962. The park is accessible from 5th Street North in New Ulm. Land acquisition and development of park facilities were done in part with money from the Land and Water Conservation Fund (also known as LAWCON or L&WCF). Therefore, the park is covered by Section 6(f) of the LAWCON Act. Amenities within the park include a shelter building, picnic tables, restrooms, and a boat launch. The park also

includes a public water access to the Minnesota River that is included on Minnesota DNR public water accesses.

2) Eckstein Boat Landing

Eckstein Landing is another public water access within the US 14 study area. It is located adjacent to CR 37, at Minnesota River mile 148, on the left bank of the river when facing downstream. The concrete landing is accessed from CR 37 south of US 14 in Nicollet County. The landing is on land owned by Nicollet County and is part of the right of way of County Road 37. It is operated under an agreement and maintained by the DNR. The agreement between the County and the DNR includes a 30-day cancellation clause should the county need the land for transportation purposes. As a result, the landing is not considered Section 4(f) property.

3) Swan Lake Wildlife Management Area

Swan Lake Wildlife Management Area (WMA) is located predominately north of US 14, west of the City of Nicollet. Several separate relatively small parcels are located south of US 14. This resource is owned and managed by the DNR. The WMA – a prairie pothole landscape, surrounding Swan Lake – is a special resource in the project area. At one time it was the largest prairie pothole marsh in America and was once even more abundant with waterfowl. Originally, the marsh consisted of more than 10,000 acres of tall prairie grass with marshlands and woodlots, along with many small wetlands. A Biological Survey conducted in 1917 called Swan Lake the most important resort for ducks and other water birds in the Great Plains Region. Over time the area wetlands were drained for more tillable acreage. Swan Lake became a stagnant pond with little vegetation. Nesting and winter habitat areas also began to disappear. In 1985 a Swan Lake Recovery Plan was developed, which identified 108,000 acres of land that would be acquired over time from willing sellers. The plan would convert this land back to prairie grasses and satellite wetlands.

The WMA is primarily intended for game and aquatic species management. It is used publicly for hunting waterfowl, pheasants, turkey, and deer. Fishing in Swan Lake is also common. Several small parking lots and boat landings which provide access to Swan Lake are maintained throughout the WMA. There are no designated or maintained trails. Information obtained from the DNR indicates that Pittman-Robertson (P-R) and North American Wetlands Conservation Act (NAWCA) federal grant-in-aid funds were applied to portions of the Swan Lake WMA.

As a whole, the WMA is not considered a Section 4(f) resource. The Swan Lake WMA is considered by FHWA to be a multiple use land holding, with wildlife species management and recreational uses dispersed within the WMA. In practice, this means that certain areas or sites within the WMA (e.g. a boat landing) could be defined as Section 4(f) resources, even though the WMA as a whole is not a Section 4(f) resource. There are no boat landings or other site specific Section 4(f) resources in close proximity to the Preferred Alternative.

3.14.2 Environmental Consequences

1) Minnecon Park & Boat Landing

The Preferred Alternative will not impact Minnecon Park. No adverse effects on canoeing or boating routes are anticipated to result from the Preferred Alternative, nor for any of the other Build Alternatives.

MnDOT has coordinated with the DNR Regional Trails and Waterway Coordinator regarding the proposed project. The DNR has concurred that the proposed project will not result in an adverse effect to Minnesota River boating facilities or to the River's status as a state Canoe and Boating River.

2) Eckstein Boat Landing

The present configuration of the Eckstein Landing may be changed by the Preferred Alternative. The possible interchange at the CR37 will cause a grade change to CR 37 south of US 14. This in turn impacts the present vehicular access point to the Boat Landing. The vehicular access to the landing will be shifted to the south end of the present lot. No other changes are proposed. There is potential that access to the site from the north (via US 14) may be temporarily disrupted during construction.

3) Swan Lake Wildlife Management Area (WMA)

The Swan Lake WMA is located adjacent to US 14 on both the north and south sides of the Preferred Alternative, making avoidance impossible. The Preferred Alternative will require the acquisition of approximately six acres of land from the fringes of the Swan Lake WMA for highway right of way, including some parcels acquired using P-R funds. Therefore, there are additional procedural requirements that would need to be followed as part of the right-of-way acquisition process, to conform to the P-R funding conditions. The DNR records also indicate that although NAWCA funds were used on the Swan Lake WMA, no NAWCA funds were used on the portions of land proposed for acquisition.

If the highway is completely rebuilt, land on both sides of the highway will be affected by construction because the alignment will not match exactly with the existing lanes. However, if the existing lanes are left in place, the new lanes would be built north of the existing highway. In any case, the full extent of the existing right of way will be used to minimize right-of-way impacts to the WMA to the extent practical.

The two direct accesses to the highway will likely be modified. The easterly access that goes to the boat landing is planned to be rerouted to line up with a township road, thereby creating a safer, more predictable access location. The access to a small parking area may be eliminated or converted to a right-in right-out (i.e. accessible by westbound traffic only). Access changes will be coordinated with the DNR.

3.14.3 Mitigation Measures

MnDOT will coordinate development of the new access to the Eckstein Boat Landing with the DNR to ensure that it adequately replaces the existing access.



Impacts to the Swan Lake WMA will be mitigated through compensation for any land acquired and potentially enhancements to the visibility or accessibility of the WMA. Furthermore, wetland impacts that can be appropriately mitigated through restoration of wetlands in the vicinity of the WMA may provide an opportunity for the expansion of the WMA. These efforts will be coordinated with the DNR.

3.15 Contaminated Properties and Materials

The presence of contaminated properties – where soil and/or groundwater is impacted with pollutants, contaminants or hazardous wastes – is a concern in the development of highway projects. This is due to potential liabilities associated with ownership of such properties, potential cleanup costs, and safety concerns associated with construction personnel encountering unsuspected wastes or contaminated soil or groundwater. Contaminated materials encountered during highway construction projects must be properly handled and treated in accordance with State and Federal regulations. Improper handling of contaminated materials can worsen their impact on the environment. Contaminated materials also adversely impact highway projects by increasing construction costs and causing construction delays.

A Phase I Environmental Site Assessment (Phase I ESA) provides information on potentially contaminated properties. These properties are identified through review of historic land use records and air photos, Federal Environmental Protection Agency, State Minnesota Pollution Control Agency (MPCA) and county/city records, as well as the current property condition.

Sites of potential concern identified by the Phase I ESA can be categorized into three risk areas: high, medium and low environmental risk. In general, high environmental risk sites are properties that have a documented release of petroleum or other chemicals or other strong evidence of contamination such as soil staining or storage of large volumes of petroleum or other chemicals. High risk sites include sites enrolled in the MPCA Voluntary Investigation and Cleanup (VIC) program and Leaking Underground Storage Tank program. Medium environmental risk sites are properties where relatively small volumes of petroleum or other chemicals are stored, but no evidence of undocumented spills or releases is noted. Medium risk sites also include properties with documented releases that have been “closed” or declared “inactive” (no further cleanup action deemed necessary) by the MPCA. “Closed” or “inactive” sites are considered medium risks because residual soil or groundwater contamination may exist at the site. Low environmental risk sites include properties where small volumes of chemicals or hazardous materials are/have been used or stored.

3.15.1 Affected Environment

A Phase I ESA in general conformance with the American Society for Testing and Materials standard was completed for the project area in November 2004. Copies of the Phase I report are on file at the MnDOT Mankato District office. The Phase I ESA identified 134 known or potentially contaminated properties in the project area: two high environmental risk sites, 22 medium risk sites, and 110 low risk sites. Initially, twenty-one of these sites were determined to be of concern based on two criteria: a) they are either high or medium environmental risk sites, and b) they are in relatively close proximity to the proposed project limits. Of these twenty-one sites, two are high environmental risk sites, and 19 are medium environmental risk sites.

A contaminated property with the potential to cause excessive cleanup costs and/or expose the purchaser to unacceptable environmental liability may need to be avoided if possible. One property identified in the Phase I ESA has a potential for excessive cleanup costs and/or environmental liability. This site is an active landfill located in New Ulm south of US 14. It is not close enough to any proposed alternative to be directly or indirectly impacted by the proposed project. None of the twenty-one properties initially identified as sites of concern has potential for excessive cleanup costs and/or environmental liability.

3.15.2 Environmental Consequences

During the fall of 2005, the project alternatives were further refined to those which were analyzed in the EIS. The twenty-one sites of concern identified in the Phase I ESA were further narrowed to those sites in close proximity to the alternatives retained for analysis in the EIS. Table F-3-21 identifies these sites and discusses whether or not any impacts are anticipated by the Preferred Alternative or other Build Alternatives.

As shown above in Table F-3-21, there are four sites (noted with **bold** text) that will be acquired for the Preferred Alternative that have the potential for contaminated soils. The remainder of the sites studied in the Phase I ESA are not in close proximity to the Preferred Alternative, nor any of the other Build Alternatives, and will not be affected.

TABLE F-3-21
Sites Identified in Phase I ESA in Proximity to US 14 Project

Phase I ID	Location	Reason for Concern	Risk Level	Potential Impacts
2	Intersection of US 14/MN 15	State highway maintenance facility. Petroleum underground storage tanks registered at site. Petroleum underground storage tank release (closed) reported at site.	Medium	Site impacted by the Preferred Alternative, as well as Alternatives W2 and W3. MnDOT currently owns facility.
3	Intersection of US 14/MN 15	Former state highway maintenance facility. Petroleum underground storage tank release (closed) reported at site.	Medium	Site affected by the Preferred Alternative as well as Alternatives W2 and W3.
4	Intersection of US 14/MN 15	Auto repair business. Petroleum underground storage tanks registered at site.	Medium	Site will be acquired under the Preferred Alternative, as well as Alternative W3.
23	US 14 between CR 37 and City of Courtland	School. Petroleum underground storage tank release (open) reported at site.	High	Alternative W1 would pass by, but not encroach upon the site. No impact anticipated.



TABLE F-3-21

Sites Identified in Phase I ESA in Proximity to US 14 Project

Phase I ID	Location	Reason for Concern	Risk Level	Potential Impacts
88	48595 US 14 Nicollet	John Morrell. Petroleum underground storage tank formerly located on site.	Medium	Site will be acquired under the Preferred Alternative.
50	South side of US 14 in Courtland on west side of CR 45	Commercial buildings on site; business unknown. Petroleum underground storage tank observed at site.	Medium	No impact anticipated. Near area where CR 24 extends north to tie into the Courtland northern bypass, which is common to all eastern alternatives.
54	US 14 in Courtland	Active gas station. Petroleum underground storage tanks registered at site.	Medium	No impact anticipated. Near area where CR 24 extends north to tie into the Courtland northern bypass, which is common to all eastern alternatives.
132	Intersection of US 14 and CR 17	Town of Belgrade highway maintenance facility with above ground storage tanks observed on site. Possible vehicle maintenance site.	Medium	No impact anticipated. Near CR 17 tie-in with US 14 alignment common to all eastern alternatives.

3.15.3 Mitigation Measures

Prior to construction activities, the properties described above and in Table F-3-21 will be further evaluated for their potential to be impacted by construction and/or acquired as right of way. Properties to be impacted by the Preferred Alternative will be further investigated through detailed review of MPCA project files and collection and laboratory analysis of soil and groundwater samples, if necessary to determine the extent and magnitude of contaminated soil or groundwater. The results of the investigation will be used to determine if the Preferred Alternative can avoid or further minimize impacts to the properties. If necessary, a plan will be developed for properly handling and treating contaminated soil and/or groundwater encountered during construction.

Further coordination and consultation with the MPCA Voluntary Investigation and Cleanup (VIC) Unit, the Petroleum Brownfields Program, the Petroleum Remediation Program, and/or the Minnesota Department of Agriculture Agricultural Voluntary Investigation and Cleanup Program (AGVIC) will take place as appropriate depending on the types of contaminants found during detailed investigations. The goal will be to obtain assurances that contaminated site cleanup work, and/or contaminated site acquisition will not result in long term environmental liability from the contamination. Contaminated soil and/or groundwater handling and cleanup plan approvals will be completed.

3.16 Air Quality

A federal agency may not approve or fund a transportation project unless it conforms to the State Implementation Plan (SIP)²⁷ for air quality as required by Section 176 (c)(4) of the Clean Air Act Amendments (CAAA) of 1990.²⁸ Section 176(c) (4) of the CAAA covers projects funded under Title 23 U.S.C. (Federal Aid Highways Act). To conform to the SIP, a project cannot cause or contribute to a new violation of any National Ambient Air Quality Standard (NAAQS)²⁹, increase the frequency or severity of any existing violation of any NAAQS, or delay timely attainment of any NAAQS or any required interim emissions reductions or other milestones.

EPA rule, Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17235) has identified six priority Mobile Source Air Toxics (MSAT), including benzene, formaldehyde, acetaldehyde, diesel particulate matter/diesel exhaust organic gases, acrolein, and 1,3-butadiene. Air toxics analysis is a continuing area of research. While much work has been done to assess the overall health risk of air toxics, many questions remain unanswered. Particularly, the tools and techniques for assessing project-specific health impacts from MSATs are limited and continually changing based on ongoing research in this area. These limitations impede the ability of how to evaluate mobile source health risks from transportation improvement projects.³⁰

3.16.1 Affected Environment

In 1999, the U.S. Environmental Protection Agency (EPA) re-designated the Twin Cities Seven County Metro Area, portions of Wright County, and the cities of Duluth and St. Cloud to attainment status for carbon monoxide, subject to the requirement to develop a maintenance plan. Those geographic regions are now considered maintenance areas for carbon monoxide.³¹ The project area is not located within a maintenance area for carbon monoxide.

3.16.2 Environmental Consequences

This project is not located in an area in which the conformity requirements apply.³² In addition, the scope of the proposed project does not indicate that negative air quality impacts would be expected. Based on FHWA air toxics guidance, this project is considered to have low potential to result in MSAT effects. That is, none of the proposed alternatives are expected to result in meaningful differences in MSAT emissions.

²⁷ Mandated by the CAAA, the State Implementation Plan (SIP) must contain procedures to monitor, control, maintain, and enforce compliance with the National Ambient Air Quality Standards (NAAQS).

²⁸ The Clean Air Act Amendments (CAAA) are comprehensive legislation, consisting of eleven separate titles that address the key issues of urban air pollution (particularly ozone, carbon monoxide, and PM₁₀), mobile sources, air toxins, acid deposition, and stratospheric ozone protection.

²⁹ National Ambient Air Quality Standards (NAAQS) are the federal standards that set allowable concentrations and exposure limits for various pollutants.

³⁰ FHWA Interim Guidance on Air Toxic Analysis in NEPA Documents, February 3, 2006 (available at www.fhwa.dot.gov/environment/airtoxic/020306guidmem.htm).

³¹ Maintenance areas are any geographic region the EPA had previously designated as nonattainment under the CAA, and which has since been redesignated to attainment status subject to the requirement to develop a maintenance plan. In Minnesota, the Twin Cities and the cities of Duluth and St. Cloud are maintenance areas.

³² Conformity is a determination made by the Metropolitan Planning Organizations (MPOs) and the U.S. DOT that transportation plans and programs in nonattainment and maintenance areas meet the purpose of the State Implementation Plan (SIP), which is reducing pollutant emissions to meet the NAAQS criteria.

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives, found at:

www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm

For each alternative evaluated in the DEIS and for the Preferred Alternative in this FEIS, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for each of the Build Alternatives is slightly higher than that for the No Build Alternative, because the additional capacity increases the efficiency of the roadway and attracts rerouted trips from elsewhere in the transportation network. This increase in VMT would lead to higher MSAT emissions for the Preferred Alternative along the highway corridor, along with a corresponding decrease in MSAT emissions along parallel routes. The emissions increase is offset somewhat by lower MSAT emission rates due to increased speeds; according to EPA's MOBILE6.2 model, emissions of all of the priority MSAT except for diesel particulate matter decrease as speed increases. The extent to which these speed-related emissions decreases will offset VMT-related emissions increases cannot be reliably projected due to the inherent deficiencies of technical models. Because the estimated VMT under each of the Alternatives are nearly the same, it is expected there would be no appreciable difference in overall MSAT emissions among the various alternatives. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent between 1999 and 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in nearly all cases.

The additional travel lanes planned as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, under each alternative there may be localized areas where ambient concentrations of MSAT could be higher under certain Build Alternatives than the No Build Alternative. However, the magnitude and the duration of these potential increases compared to the No-Build alternative cannot be reliably quantified due to incomplete or unavailable information in forecasting project-specific MSAT health impacts. In sum, when a highway is widened, the localized level of MSAT emissions for the Build Alternative could be higher relative to the No Build Alternative, but this could be offset due to increases in speeds and reductions in congestion (which are associated with lower MSAT emissions). Also, MSAT will be lower in other locations when traffic shifts away from them. However, on a regional basis, EPA's vehicle and fuel regulations, coupled with fleet turnover, will over time cause substantial reductions that, in almost all cases, will cause region-wide MSAT levels to be significantly lower than today.

In sum, under all Build Alternatives in the design year it is expected there would be reduced MSAT emissions in the immediate area of the project, relative to the No Build Alternative, due to the reduced VMT associated with more direct routing, and due to EPA's MSAT reduction programs.

3.17 Noise

The sound pressure level created by traveling sound waves is commonly measured in decibels (dB).³³ Sound levels are adjusted, or weighted, to approximate the way an average person hears sound. These adjusted sound levels are “A-weighted decibels” (dBA). Table F-3-22 illustrates common noise sources, and the typical noise levels of these sources.

Because highway noise levels vary with time, federal and state standards use noise thresholds to determine when an impact would occur. The thresholds are identified as the noise level (in

dBA) that would be exceeded 10% of the time in one hour (i.e., for six minutes of a given hour). This is called the L₁₀ noise level. FHWA guidelines state that a noise impact occurs when L₁₀ noise levels approach or exceed 70 dBA at residential receptors and 75 dBA at commercial receptors. That is, noise levels exceed 70 dBA for six minutes in one hour.

The FHWA criteria for evaluating noise impacts are contained in Title 23 Code of Federal Regulations (CFR) Part 772 – *Procedures for Abatement of Highway Traffic Noise and Construction Noise*. These criteria are summarized in Table F-3-23. The majority of noise sensitive areas within the study area fall under FHWA’s Category B criterion which pertains to residences, schools, recreation areas, and similar uses. In order to consider mitigation actions under this activity category L₁₀ values must approach or exceed 70 dBA.

TABLE F-3-22

Typical Noise Levels in dBA and Noise Level Comparison

Noise Source	Noise Level in dBA
Jet Engine (at 75 feet)	140
Jet Aircraft (at 300 feet)	130
Rock and Roll Concert	120
Pneumatic Chipper	110
Jointer/Planer	100
Chainsaw	90
Heavy Truck Traffic	80
Business Office	70
Conversational Speech	60
Library	50
Bedroom	40
Secluded Woods	30
Whisper	20

Source: *A Guide to Noise Control in Minnesota*, Minnesota Pollution Control Agency; and *Highway Traffic Noise*, FHWA.

In Minnesota, traffic noise is regulated by the Minnesota Pollution Control Agency (MPCA). State of Minnesota standards for noise impacts are more restrictive than federal standards, and are based on land use and time of day (i.e., day or night). In addition to using the L₁₀ noise descriptor, Minnesota State Noise Level standards also use L₅₀ descriptors. L₅₀ is the sound level that is exceeded 50 percent of the time (i.e., thirty minutes) in one hour of the day or night that has the heaviest traffic. The state criteria for evaluating noise impacts are described below in Table F-3-24.

³³ A 3dB increase in sound is barely perceptible to the human ear; an increase of 5 dB is clearly noticeable; a 10 dB increase is heard twice as loud. If traffic volumes double, there is a 3 dB increase in noise, which is just barely noticeable to most people. If traffic increases by 10 times the original amount, there is a 10 dB increase in sound, and it is heard twice as loud as the original traffic levels.

TABLE F-3-23

FHWA Noise Abatement Criteria (NAC), Hourly A-Weighted Sound Level in Decibels (dBA)

Activity Category	L ₁₀ (h) ²	Description of Activity Category
A	60 dBA (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if they are to continue to serve their intended purpose.
B	70 dBA (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in Categories A and B above.
D	—	Undeveloped lands.
E	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Under State of Minnesota guidelines, a daytime noise impact at the L₁₀ level occurs as noise approaches or exceeds 65 dBA at residential receptors and 70 dBA at commercial receptors. A daytime noise impact at the L₅₀ level occurs when noise approaches or exceeds 60 dBA at residential receptors and 65 dBA at commercial receptors. Night time levels use a similar method, but different dBA levels, as indicated in Table F-3-24.

In addition to the sound level criteria described above, FHWA and MnDOT both define the occurrence of a traffic noise impact if predicted sound levels “substantially” exceed existing noise levels— even if noise levels do not exceed FHWA or state sound level criteria. MnDOT defines an increase of 5dBA or more over existing ambient noise levels as “substantial.”

Land Use	Day Time Levels		Night Time Levels	
	L ₁₀ (dBA)	L ₅₀ (dBA)	L ₁₀ (dBA)	L ₅₀ (dBA)
Residential	65	60	55	50
Commercial	70	65	70	65
Industrial	80	75	80	75

3.17.1 Affected Environment

With the exception of Courtland and Nicollet, the project area is primarily rural with scattered residences. Traffic along US 14 is the primary noise source. Sound from traffic on other local roadways is also audible but does not contribute appreciably to overall noise levels at noise-sensitive locations. A noise analysis was conducted to assess the current and future traffic noise exposure at noise sensitive areas located within the US 14 study area.

Existing and future (2030) noise levels for the No Build Alternative and the Build Alternatives were modeled using the noise prediction program, MINNOISE (MnDOT's preferred method). MINNOISE uses traffic volumes, speed, class of vehicle and the physical and geometric characteristics of the roadway and receivers being analyzed.

Noise level measurements and concurrent traffic counts were monitored at five locations along US 14 on November 17, 2004, to aid in model calibration (see Exhibits F-E-1 through F-E-4 in Appendix E for the monitoring sites). Measurement equipment consisted of a Larson Davis Model 820 Type 1 sound level meter.

Twenty-six noise receptors were identified throughout the study area.³⁴ In many instances, the receptors represent communities (Courtland and Nicollet); neighborhoods (Spruce Haven and Shady Brook Acres/Flecks Subdivision); or specific land uses (Minnesota Valley Lutheran High School

For the eleven receptors shown in Table F-3-25, existing noise levels were modeled for the hour of the day that experienced the most traffic on US 14. The receptors were chosen as representative locations along the existing highway. Modeling was done using MnDOT year 2000 traffic data and noise data collected in the field. Existing peak hour L₁₀ noise levels ranged from 54 dBA to 72 dBA. The L₅₀ noise levels varied from 51 dBA to 65 dBA. As shown with **highlighted text** in Table 3-25, four receptors along US 14 currently exceed State of Minnesota daytime standards at the L₁₀ and L₅₀ levels.

³⁴ Receptors are outdoor places where frequent human use occurs and a lowered noise level would be beneficial.

TABLE F-3-25

2004 US 14 Existing Daytime Peak Hour Noise Levels in US 14 Study Area from West to East

	Receptor	Receptor Location	Existing Noise Levels (November 2004)	
			L ₁₀	L ₅₀
West Study Section Receptors	26	Represent top-of-bluff residences between MN 15 and CR 37.	57	54
	24		59	55
	23		59	55
	1	Represents residences in the Shady Brook Acres/Flecks Subdivision	67	62
	2	Represents the Minnesota Valley Lutheran High School and a rural residence located on 561 st Avenue.	59	56
	18	Represent rural residences located within Courtland City limits	62	58
East Study Section Receptors	3	Represents several residences along US 14 within the City of Courtland.	72	65
	17	Represent rural residences located within Courtland City limits	54	51
	4	Represents a rural residence located between 511 th Ave. and 466 th Street.	61	57
	12	Represents one rural residence, located south of US 14, and adjacent to the north side of Alternative E2.	66	61
	5	Represents several residences along the south side of US 14 in the City of Nicollet	72	64

3.17.2 Environmental Consequences

The Preferred Alternative bypasses at Courtland and Nicollet will substantially reduce traffic noise within those communities. The Preferred Alternative will reduce traffic noise at 117 first row residences and businesses in the communities of Courtland and Nicollet.

During the EIS process, future noise impacts from the No Build Alternative and the Build Alternatives were modeled for the twenty-six receptors using projected future (2030) traffic data. This indicated that L₁₀ noise levels under the No Build Alternative would range from 55 dBA to 74 dBA. The L₅₀ noise levels ranged from 53 dBA to 68 dBA. All Build Alternatives included receptors that would experience noise levels exceeding the state L₁₀ and/or L₅₀ levels. Alternatives W2 and E2 would have had receptors where the noise would increase by 5 dBA or more, thereby qualifying as a substantial increase in noise levels under FHWA and MnDOT criteria. Table F-3-26 lists the receptors that would exceed L₁₀ and/or L₅₀ state noise standards for daytime hours, a description of the land use, and the number of first row residences that would experience the increased noise levels.

Table F-3-26

Year 2030 Noise Levels by Alternative

West Study Section



Site	# of Receivers	Area Represented by Receptor	No Build		Pref Alt W1		Alt W2		Alt W3	
			L ₁₀	L ₅₀	L ₁₀	L ₅₀	L ₁₀	L ₅₀	L ₁₀	L ₅₀
R26	8	Residences along CR 21 going up bluff	58	56	60	57	62	59	60	57
R25	3	Residences on CR 21 on top of bluff	--	--	--	--	63	60	--	--
R24	4	Residences along Spruce Haven on top of the bluff.	60	57	62	59	66	62	62	59
R23	1	Farm at 446 th Street	61	57	62	59	63	60	62	59
R1	7	Shady Brook Acres/Flecks Subdivision	68	64	70	65	--	--	--	--
R22	5	Shady Brook Acres/Flecks Subdivision	--	--	--	--	59	57	59	57
R21	1	Farm on 561 st Avenue	--	--	--	--	60	57	60	57
R2	2	MVL High School and residence	61	58	62	59	--	--	--	--
R20	1	Farm on 561 st Avenue	--	--	--	--	63	59	63	59
R19	2	Farms eligible for National Register	--	--	--	--	64	62	64	61
R18	1	Residence on US 14	64	60	66	62	63	60	63	60

East Study Section

Site	Receivers	Area Represented by Receptor	No Build		Pref Alt E1		E2		E3		E4	
			L ₁₀	L ₅₀	L ₁₀	L ₅₀	L ₁₀	L ₅₀	L ₁₀	L ₅₀	L ₁₀	L ₅₀
R3	75	Courtland	74	68	54	52	54	52	54	52	54	52
R17	1	Residence on 531 st Avenue	55	53	57	55	57	55	57	55	57	55
R16	1	Farm on 446 th Street	--	--	54	52	54	52	54	52	54	52
R15	1	Farms 511 th Avenue	--	--	--	--	--	--	59	56	59	56
R4	1	Farm south of US 14	63	60	65	62	65	62	--	--	--	--
R14	2	Farm south of Alternative E2	--	--	66	62	--	--	--	--	--	--
R13	1	Farm south of Alternative E3	--	--	--	--	--	--	56	54	56	54
R12	2	Farms near 481 st Avenue	69	64	66	62	71	66	--	--	--	--
R11	0	Land near US 14	--	--	58	55	--	--	--	--	--	--
R10	1	Farm near E1 on	--	--	57	55	62	59	--	--	--	--



471 st Avenue												
R9	2	Farms near E4 on 471 st Avenue	--	--	--	--	--	--	--	--	64	61
R8	1	Farm near E3 on 471 st Avenue	--	--	60	58	62	59	67	63	--	--
R7	1	Farm on CR 23	--	--	--	--	51	49	54	52	56	54
R6	5	Farms near Alternative E4	--	--	--	--	--	--	--	--	61	58
R5	42	Nicollet	74	68	--	--	59	55	55	53	--	--

Bold values indicate noise levels meeting or exceeding State of Minnesota daytime L₁₀ standards of 65 dBA or L₅₀ standards of 60 dBA.

Italics values indicate noise levels that increase “substantially” over present conditions (i.e. increase of 5 dBA or more).

The No Build Alternative would have resulted in the most substantial noise impacts to first row residences and businesses. Overall, the results shown in Table F-3-26 illustrate:

- The No Build Alternative would have resulted in traffic noise exceeding state standards at six locations. Four of these areas currently experience noise levels that exceed state standards (Receptors R1, R3, R12, and R5). However, noise levels would have increased even more at these locations under the No-Build Alternative. Noise at Receptors R4 and R18, which represents isolated residences, would have increased to the point of exceeding state noise standards under the No Build Alternative.
- Developed locations – represented by Receptors R3 (Courtland) and R5 (Nicollet) – that currently experience noise levels exceeding state noise standards were predicted to experience noise levels below the state noise standards under all Build Alternatives, including the Preferred Alternative. The Preferred Alternative bypasses at Courtland and Nicollet will substantially reduce traffic noise within those communities. The Preferred Alternative will reduce traffic noise at 117 first row residences and businesses in the communities of Courtland and Nicollet.
- There are no receptors that will exceed noise standards due to construction of the Preferred Alternative that would not have exceeded standards with the No Build Alternative.

3.17.3 Mitigation Measures

Mitigation is undertaken for noise impacts when the noise levels can be decreased by at least 5 dBA and the cost to do so is less than \$3250 per dBA per residence. The typical means of mitigation is construction of a noise wall.

A preliminary analysis of the effectiveness of noise walls was conducted to determine if more detailed noise modeling is necessary. The assumptions used in the analysis are:

- The noise comes from a line source located eight feet above the preliminary road profile elevation and in the center of the travel lane closest to the receptor.

- The noise wall is located 10 feet inside the preliminary right of way.
- The receptor is five feet above ground at the corner of the house nearest the highway.
- Breaking the line of sight with a noise wall results in a 4 dBA reduction in noise and each additional two feet of wall decreases noise by 1 dBA. Minimum wall height is based on 5 dBA reduction. Actual wall heights would likely be standard 10 or 20 foot designs.
- The required length of noise wall is four times the distance between the wall and the receptor in each direction from the receptor. When a noise wall would service multiple residences, the distance between the two end residences is added to the length.
- Noise walls cost \$15 per square foot.

Each of these assumptions is conservative in that they would indicate the cost effectiveness of a noise wall even when detailed noise modeling may not. The analysis was run for all residences reasonably close to the highway and for those platted parcels where no residence currently exists. The results of the calculations for those residences closest to the highway and in the largest groupings of houses are shown in Table F-3-27.

Table F-3-27

Preliminary Noise Wall Analysis Summary

Location	Number of Residences	Min. Wall Height (feet)	Wall Length (feet)	Min. Noise Wall Cost	Cost per dBA per residence	Cost Effective?
Platted lots ¹ west of Heyman's Creek	14	6	4460	\$394,000	\$5600	No
Shady Brook Acres	5	7	2004	\$208,000	\$8300	No
Fleck's Subdivision	2	4	958	\$51,000	\$5100	No
Platted lots at MVL ¹	14	8	3460	\$424,000	\$6100	No
Farm at 561 st Ave.	1	8	320	\$38,000	\$7700	No
Hintz Farmstead	1	9	1060	\$123,000	\$25,000	No
Farm at 478 th St.	1	7	240	\$24,000	\$4900	No
Farm at CR 17	1	12	1064	\$196,000	\$39,000	No

¹These lots are currently undeveloped. For this analysis the assumption was made that all of the lots will be developed and the houses will be set 85 feet back from the right of way consistent with county ordinances.

Based on the preceding analysis, given the rural nature of the area and the length and height of wall needed to achieve the 5 dBA reduction, none of the receptors along the Preferred Alternative would qualify for mitigation. As with other environmental considerations on this project, if substantial changes occur in the environment prior to construction, MnDOT will conduct an updated evaluation prior to proceeding with the project.

3.18 Indirect and Cumulative Impacts

3.18.1 Indirect and Cumulative Impacts— Definitions

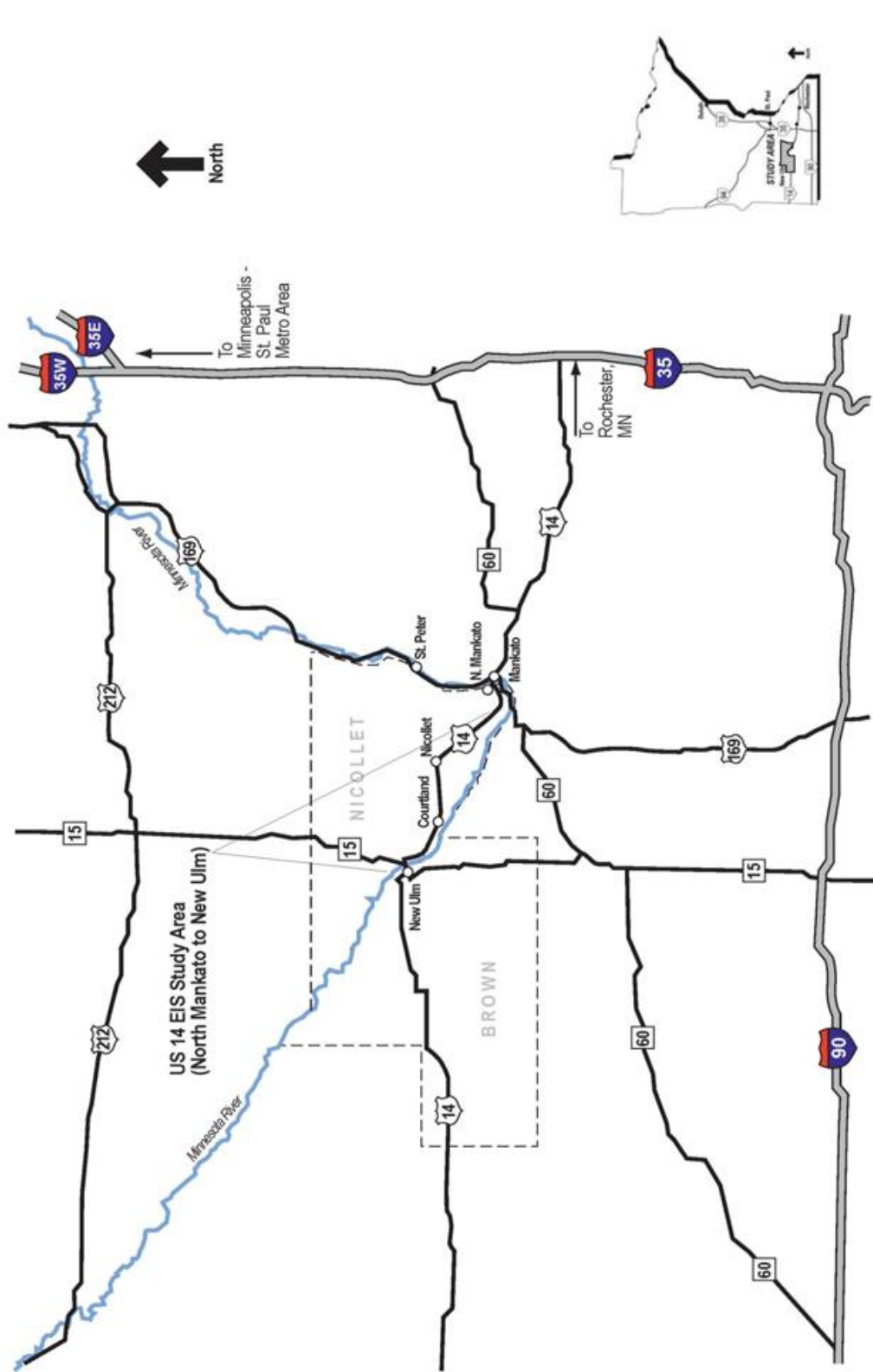
The analysis of effects under NEPA and MEPA includes direct impacts, which impacts are caused by the action of building the proposed project at the certain time and place. In addition, the analysis extends to indirect and cumulative impacts. The U.S. Council on Environmental Quality (CEQ) has defined direct and indirect impacts. *Direct impacts* are the main subject of this section of the FEIS—they are impacts caused by the proposed action and occur at the same time and place. As discussed throughout Section 3, direct impacts are typically those that can be measured immediately after completion of the project—for example, acres of land acquired or wetlands filled.

According to the CEQ, an *indirect impact* is caused by a specific project or action, but occurs later in time or farther away, yet is still reasonably foreseeable. Indirect impacts may include growth-inducing effects related to changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Cumulative impacts result from the incremental impacts of a project when added to other past, present, and reasonably foreseeable future actions, regardless of the agency or individual undertaking the action. Cumulative impacts can result from individually minor, but collectively significant actions taking place over time. This definition is also based on CEQ regulations (40 CFR 1500-1508).

Indirect and cumulative impacts were also evaluated within geographic and chronologic boundaries. Exhibit F-3-7 shows the location of Brown and Nicollet Counties. Brown and Nicollet counties constitute the primary study area for both indirect and cumulative effects for most of the environmental categories considered in this evaluation. Some very minor indirect effects might also occur in Blue Earth and Le Sueur Counties, located south and east of Nicollet County, respectively. Exhibit F-3-7 also shows the area's regional transportation network, which provides a reference for consideration of transportation impacts. The time frames considered for this area extend about 20 years backward and 20-25 years forward. This time frame is consistent with the US Highway 14 project development history (which goes back at least 20 years) and with the travel forecasts out to 2030 as cited in Section 1.4.





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Exhibit F-3-7
Indirect and Cumulative Study Area

3.18.2 Indirect Impacts

Constructing a four-lane highway on new alignment creates the possibility for indirect impacts. Residential, industrial, and commercial development often responds to the improved travel time and safety. As traffic patterns farther away are unlikely to change as a result of this project, these indirect effects would likely be expected only in eastern Brown County, western Blue Earth County, and Nicollet County. The majority of the US 14 project is located in Nicollet County. Nicollet County land use regulations are a major limiting factor in the potential for indirect impacts. These regulations place strict limitations on development rural areas of the county. Residential, commercial and most industrial growth is directed to the incorporated areas of Courtland and Nicollet (see also Section 3.3). While not the only factor in future development, the expanded highway may facilitate the following types of development:

- **Residential** – To some degree Courtland and Nicollet are already bedroom communities for New Ulm and Mankato. Approximately 90 percent of Courtland residents have commute times greater than ten minutes, indicating they work outside of town. In Nicollet 70 percent of residents have commute times greater than 10 minutes. Staff of the City Courtland felt this was due, in part, to housing being more affordable in Courtland than in New Ulm. The Preferred Alternative will improve travel times and safety and thereby support this trend. It should be noted that travel time is but one factor of many which have been found to influence residential location decisions.
- **Industrial** – Reduced and more predictable travel times as well as improved safety of a four-lane, divided highway is helpful for industrial concerns, and allows firms to be more competitive despite being further from markets. The Preferred Alternative will provide this benefit for area manufacturers and shippers. This could further encourage use of the “JOBZones” (i.e. areas designated for tax incentives for development by Minnesota law) in New Ulm. Courtland’s Comprehensive Plan designates land on the west side of the city for industrial development; Nicollet’s Plan identifies land on the south side of the city. Both communities have ample space for industrial growth relative to their current industrial development. The benefits of reduced and more predictable travel times will extend to manufacturers and shippers located further west in Brown County and other western Minnesota counties.
- **Commercial** – Construction of the Preferred Alternative, including the bypasses of Courtland and Nicollet, will encourage certain types of highway commercial businesses to locate along the county roads where they intersect US 14 and provide access to the cities. Research and MnDOT experience shows that businesses such as gas stations, convenience stores and restaurants often choose such locations. Given the size of the communities such development is likely to be limited. Other new commercial developments less dependent on drive-by business may also build near the highway to take advantage of increased visibility to highway users. The location of the highway at the bypasses may influence the location of development, while expanded economic development is the result of market conditions.

Growth in these areas will continue regardless of the US 14 project. Therefore, only the incremental increase in development that would not have occurred but for the construction of the highway is considered in assessing the following indirect impacts.

Transportation (Section 3.5 addresses the direct impacts) – Potential increases in residential and industrial development attributable to the new highway will result in a small increase in traffic on US 14 (“induced traffic”). Also, improved travel times for existing trips will tend to draw more traffic onto US 14 from nearby parallel roadways such as MN 68 and CR 25 (“diverted traffic”). Furthermore, some trips that are currently not being taken will be made in the future as the travel time decreases below some peoples’ threshold for deciding to make the trip (“latent traffic”). Together, these causes of additional trips that occur because of the increased highway capacity are known as generated traffic.

A safer and higher-capacity US 14 will bring some economic benefit to the local communities, the region, and businesses (e.g., farming, mining, and freight hauling); however, Nicollet County’s strict limitations on development would help to ensure that induced development would be directed primarily to Courtland and Nicollet

Research suggests that over the long term, generated traffic growth is approximately equal to the percentage reduction in travel time. On US 14, where travel times would be expected to decrease by about 15%, an 8-15% increase in vehicles due to generated traffic would be predicted. This would amount to 500-1,000 vehicles per day. Research further suggests that about one fourth of the generated traffic growth is predicted to be from additional development, with diverted and latent trips comprising the rest. It should be noted that these predictions are based on a limited set of studies in which there is a fair amount of variation. Other regional economic factors will have a heavy influence on future development, but are not considered in this simple model.

This increased traffic would not have an adverse impact on the level of service on any of the roads because the Preferred Alternative US 14 will have adequate capacity and both MN 68 and CR 25 operate under capacity.

Socioeconomics (3.6) – The effect of the highway on local economics is difficult to predict and likely much smaller than the influence of regional economics. Predicted highway commercial and induced residential growth will result in increased construction activity in the cities along the corridor. This money will filter through the local economy as workers and residents utilize locally available services. Long term effects may include enhanced viability of local commercial businesses. In any case, a safer and higher-capacity US 14 will bring some economic benefit to the local communities, to the region, and businesses using US 14, e.g., farming, mining, and freight movement. Nicollet County’s zoning ordinances would help to ensure that induced development would be directed primarily to Courtland and Nicollet.

Land Use (3.3) – In the case of the immediate project area, Nicollet County’s zoning can be assumed to continue, which will maintain the area’s limited, low-density and dispersed development. This will help preserve the local agricultural economy. The Cities of Courtland and Nicollet can be expected to grow consistent with plans inside their city limits, although at a slightly faster pace with highway improvements than without. Courtland and Nicollet developed 50 and 38 housing units, respectively, between 1990 and 2000. An additional increase of 25-50 units over 10-20 years would convert more land to urban use, but would not exhaust the available space within the municipal boundaries.

Agricultural Resources and Soils (3.4) – As described earlier in this FEIS, construction of the Preferred Alternative will cause direct impacts of farmland required for the proposed

improvements. The potential for indirect impacts, such as land use conversion due to development, is very limited due to Nicollet County's zoning. While the commercial and residential development noted above would impact agricultural land, the anticipated impact in each community would be less than 40 acres. Such indirect impacts would be expected on agricultural lands inside the city's limits and thus are already part of long-term plans for land use conversion.

While some agricultural production may be lost through land acquisition and conversion, the area's overall trend toward increased agricultural productivity – combined with the indirect transportation benefits of the proposed project – would be greater than the adverse effects. US 14 is an important element in the agricultural economy for the region, both for the movements from farm to market and for the movement of agricultural materials and equipment into the area. An improved US 14 will help insure the vitality of the agricultural economy for many years into the future.

Water Resources and Wetlands (3.7 to 3.10) – There are water resources and wetlands in the areas where induced development may occur. The eastern growth boundary of Nicollet is a drainage ditch. Residential development adjacent to this feature may cause a minor increase in runoff; though it would be minimal because of current practices to capture and treat urban runoff before it enters receiving waters. There are also two delineated wetlands in the Courtland growth area and one in Nicollet that could be affected by development. These are low areas in tilled farmland. These may be impacted by future development, or potentially could be restored for use as stormwater ponds according to the needs of the development.

Cultural Resources—Historic and Archaeological (3.13)— There are no properties eligible for the National Register of Historic Places in the growth areas in Courtland. In Nicollet, the Thielbar Barn (NL-NCT-033) is located within the area zoned for industrial development and is immediately adjacent to already developed land. There is the potential for this barn to be impacted by future development.

Other Indirect Impact Categories—The remaining environmental impact categories, with less weight than those above in the project's environment context, are briefly discussed here with reference to potential indirect impacts:

- **Upland Habitat, Wildlife, and Threatened/Endangered Species (3.11 and 3.12)**— Residential development in Courtland is currently occurring most heavily on the bluffs overlooking the Minnesota River and along tributary ravines. Any induced residential development could add to the conversion of wooded, upland habitat. However, such "first row" development space is already more than 75% developed. This land is likely to be developed before the US 14 project is constructed. The DNR has pointed out that increasing road density goes hand in hand with increased development that has an impact on upland habitat and wetlands leading to increased wildlife mortality and potential decreases in populations.
- **Public Lands and Recreational Resources (3.14)**— There are no such lands in the growth areas that could be affected.
- **Noise (3.17)**— There could be minor, short term increase during construction of any induced development. Local construction noise may be regulated through local ordinance.



- **Construction and Excess Material (3.22)**—Construction of any development that can be attributable to the new highway would involve minor impacts. These are expected to be minor as the highway commercial and residential sites would be relatively small in scope.

3.18.3 Cumulative Impacts

As noted in Section 3.18.1, a *cumulative impact* results from the incremental impacts of a project when added to other past, present, and reasonably foreseeable future actions, regardless of the agency or individual undertaking the action. To complete an analysis of potential cumulative impacts the following points were considered:

- Only resources that will experience a direct impact were reviewed for cumulative impacts.
- For each resource a geographic area and timeframe were identified over which to consider the cumulative impacts.
- The effects of past actions within the study area and time were identified to determine how the resource has been affected over time.
- Reasonably foreseeable future actions were considered, to forecast the future state of the resource in the study area.

General Historical Overview of Project Area—Before European settlement, the study area was dominated by tall-grass prairie, woodlands, and wetlands. With settlement came farming, which until the 1960s was diversified with dairy and production of a mix of grains. Between 1940 and the 1980s, much of the area’s wetlands were drained and row crops became the dominant landscape feature. Throughout all of this, the communities within the study area were settled: New Ulm was incorporated in 1857, Mankato Township was formed in 1851, and the City of Mankato organized in 1858. Railroad and road infrastructure was built, including US 14. The US 14 project will result in notable impacts to the landscape and some environmental resources, as documented throughout this FEIS. Aside from this 22.5-mile transportation project and, as of the date of approval of the FEIS, MnDOT knows of no other reasonably foreseeable actions that would result in the substantial changes to the study area’s primarily rural and agricultural characteristics (see Table F-3-28 below for a summary of development trends).

TABLE F-3-28		
Development Trends and Projects in the Brown and Nicollet County Study Area		
Geographic Area (sources)	Development Projects/Trends	Other Trends
Brown County —Emphasis on New Ulm (New Ulm Community Development Director)	The US 14 corridor on the west side of New Ulm has been, and will continue to be, the major center for new development projects. Recent projects here include two retail stores, each approx. 200,000 square feet. More commercial development projects are also ongoing and expected in this area, as well as in the nearby New Ulm	While population growth and development in Brown County is steady, it not expected to be substantial in scale.



TABLE F-3-28		
Development Trends and Projects in the Brown and Nicollet County Study Area		
Geographic Area (sources)	Development Projects/Trends	Other Trends
	industrial park.	
Nicollet County —Emphasis on Courtland and Nicollet (Nicollet Co. Environmental Program Manager; City Administrator for Courtland and Nicollet)	Courtland has a stronger trend toward growth and new development than Nicollet, based on better proximity to New Ulm and lower costs/taxes than New Ulm. Courtland is expanding primarily to the south and west (out to the area near Minn. Valley Lutheran High School), with some commercial development interests in lands along US 14. Later phases of development are planned to the north. Nicollet's growth is generally along US 14 and to the south. Truck traffic generated from agriculture and other businesses continues to increase.	Nicollet County's restrictions on residential development in unincorporated areas continue to be well supported. The County supports proactive planning in anticipation of an improved US Highway 14. There are also substantial amounts of undeveloped lands in Courtland and Nicollet to accommodate the expected pace of development.

Transportation (Sections 3.5 addresses the direct impacts) – The area under review for transportation impacts includes Nicollet, eastern Brown, and western Blue Earth Counties. The timeframe for consideration of impacts is from 1980 (following completion of the four-lane bypass of Mankato) to 2030, which is the longest outlook of the MnDOT Long Range Plan. Prior to 1980, a fully developed network of rural farm to market and intercity roads had been developed. Since 1980, and, more formally since the 2000 publication the IRC plan, MnDOT has been developing US 14 as a four-lane expressway. With construction of a four-lane US 14 between New Ulm and Mankato, the need for rural highway capacity expansion in the study area will be satisfied.

Based on historic rates, traffic is expected to grow 1.9-2.6% annually. The number of trucks is expected to grow somewhat greater than the number of passenger vehicles as farming and product distribution practices evolve.

Socioeconomics (3.6) – Again, the area under review for socioeconomic effects includes Nicollet, eastern Brown, and western Blue Earth Counties and the time frame is from 1980 to 2030. In that time the area has undergone substantial changes as the small farming communities have declined and more of the population is concentrated in the larger regional trade centers. Those small towns near enough to the larger cities have become bedroom communities. With these changes, the local economy has fluctuated along with the larger regional and national economies. Local city and transportation plans have been developed assuming such trends will continue.

Land Use and Visual Quality (3.3) – The area under consideration for land use and visual quality effects is restricted to the immediate project area.

Overall, the project area has not experienced a great deal of change in land use or visual quality since the large scale conversion to agricultural lands and the accompanying development. With or without the US 14 project, the area is expected to experience some changes in land use,

including development activities within Courtland and Nicollet. Other known projects that will occur with or without the project include expansion of the Minnesota Valley Lutheran High School, planned mining activities at New Ulm Quartzite Quarries and the kaolin mine east of 561st Avenue, and expansion of the Swan Lake WMA.

The landscape in the area has been converted from prairie to farmland and small cities. Continued growth will add more buildings to the visual environment, but no major change in the quality of the experience.

Agricultural Resources and Soils (3.4) – The review of cumulative effects on farmland considers Nicollet County from 1987 through 2030. The mid-1980's saw many technologies impact farming. Economic conditions caused many small farms to fail. What emerged were fewer farms which were larger with more automation. The trend for fewer but larger farms has been evident for several decades.

In 1987 there were 892 farms in Nicollet County totaling 250,061 acres with 230,111 acres as cropland. In 2002 there were 730 farms totaling 257,101 acres with 234,069 acres as cropland. The trend toward fewer but larger farms is expected to continue over the coming decades as the business is very capital intensive and, therefore, difficult for new operators to enter.

With the exception of the US 14 project, no other reasonably foreseeable actions are anticipated to occur in the vicinity of the study area that would result in notable conversion of cropland to other uses. The US 14 project will remove some cropland from production. At the same time, improving land productivity, and the increasing demand for corn products may result in more land being used for agricultural production. US 14 serves important agricultural purposes, including as a farm to market route.

Water Resources and Wetlands (3.7 to 3.10) – The timeframe for the consideration of cumulative impacts to water resources is from the period of European settlement to 2030 – a longer timeframe than for other resources because of the magnitude of change. The review focuses on Nicollet County and not the larger Minnesota River basin.

As noted in Section 3.7.1.2, it is difficult to determine whether the Minnesota River's water quality has improved over time, due to the seasonal and annual fluctuations and geographic differences in the basin. A clear picture of the water quality of rivers and streams within the Minnesota River Basin will not be possible until long-term and specifically focused studies are completed. However, at the time this FEIS is being approved, many improvements in point source pollution control have been documented, as well as continued adoption of conservation and best management practices (BMPs) within the Minnesota River Basin. A major remaining challenge is the reduction in nonpoint source pollutants, such as agricultural and urban runoff. The US 14 project will incorporate a number BMPs and provides for wetland mitigation and other forms of environmental restoration. No adverse cumulative effects to water quality are anticipated to result from the project. Because of the BMPs likely to be implemented on this project, improvements in water resource features will likely result from the project.

An analysis of historic data for Nicollet County indicates that about 85,000 acres of wetlands were present in Nicollet County at the time of the original land survey (1847 to 1907).³⁵ This is the area that comprises "pre-settlement" wetlands. Today, the National Wetlands Inventory (NWI) mapping of wetlands in Nicollet County, as well as US 14 project field delineation experience, suggests about 18,000 to 20,000 acres of wetlands remain in Nicollet County.³⁶ This suggests a Nicollet County loss of pre-settlement wetlands in the range of 75 to 80 percent from the time of the original survey to the NWI mapping effort in the 1980s, assuming consistent measurement methodology and definition over time.

Since the 1980s, available data and regulatory/delineation experience suggest there has been a reduced net adverse effect on wetlands because of major regulatory changes, particularly the federal Clean Water Act (1972) and the Minnesota Wetland Conservation Act (1991). These federal and state laws, regulations and programs protect many more acres of wetland than were protected prior to 1991. Until the 1970s, farmers were subsidized to drain wetlands; however, wetlands have since benefited from the above referenced protections, as well as federal Executive Orders and local laws. These regulations require wetland sequencing--i.e. avoidance, minimization, and mitigation--to address all wetland impacts, whether the projects are developed with public or private funding.

Federal and state wetland protection laws require replacement of impacted wetlands at ratios typically of 2:1. The outlook for wetlands is therefore positive as previously drained wetlands will be restored, or new ones created to mitigate for wetlands impacted.

Cultural Resources—Historic and Archaeological (3.13)—When private development projects are undertaken and added to the impacts from the proposed project, cumulative effects on cultural resources have potential to increase. Privately funded projects are generally not regulated and, to the extent that there are eligible resources found in the area, there is potential for adverse effects—and potentially greater effects with completion of the proposed project as this would slightly expand or accelerate private development projects.

Regardless of the proposed US 14 project, the condition of cultural resources in the project area will generally continue to decline unless private conservation efforts are undertaken. For the most part, private property owners have responsibility for these resources. Such owners may not have the resources available to undertake conservation or restoration. Additionally, the alteration or removal of these resources can also be undertaken at the discretion of private property owners. Therefore, the passage of time and the actions of private property owners are anticipated to contribute more to the cumulative impacts to cultural resources than the proposed project.

³⁵ Sources and notes: US General Land Office (GLO) Survey Notes (GLO 1847 – 1907), which was used to create a pre-settlement vegetation map; Original Vegetation of Minnesota (Marschner 1930); Interpretation of Francis J. Marschner's Map of the Original Vegetation of Minnesota (Heinselman 1974); Natural Vegetation of Minnesota at the Time of the Public Land Survey 1847-1907 (Wendt and Coffin); Minnesota's Natural Heritage: An Ecological Perspective (Tester 1995). The most modern interpretation of the pre-settlement vegetation has been digitized into GIS format. The modern GIS map of pre-settlement vegetation in Nicollet County shows that 85,029 acres (28% of Nicollet County) were wetlands, including broad wetland classifications of Wet Prairie, Lakes, and River Bottom Forest.

³⁶ GIS analysis, showing 18,115 acres of wetlands in Nicollet County based on the USGS National Wetlands Inventory. Field experience on this project indicates that additional areas of wetlands are likely to be delineated above the approximate 18,000 acres reflected in the NWI mapping. For example, the remote sensing NWI delineation methods had a high likelihood of missing intensively row-cropped wet depressions; the 2004 wetland delineation effort for this project included field efforts that would not likely miss such wetlands.

Other Cumulative Impact Categories—The remaining environmental impact categories, with less weight than those above in the project’s environment context, are briefly discussed here with reference to potential cumulative impacts:

- **Upland Habitat, Wildlife, and Threatened/Endangered Species (3.11 and 3.12)**—As noted in addressing indirect impacts, completion of the proposed project would potentially cause a slightly greater level of development over time. MnDOT has no knowledge of the certainty or location or any such development, and is unable therefore to specify any particular effect. Most of the development thought to be associated with the US 14 project is anticipated to take place within or very near to the cities of Courtland and Nicollet, and to be consistent with their plans. Generally however, the trend is towards increasing development that destroys habitat.
- **Noise (3.17)**—Traffic noise from the US 14 project is as described earlier in Section 3.17. The community bypasses of Courtland and Nicollet will reduce traffic noise for more than 100 receptors. No cumulative effect on the noise environment is expected.

3.18.4 Indirect and Cumulative Impacts— Conclusion

Considering the impacts of the proposed project in the light of past and future actions indicates that none of the resources analyzed are at risk for substantial impact, or high adverse effects due to the project’s additive effects. As presented in detail above, this conclusion accounts for reasonably foreseeable activities that may be undertaken by others and the potential for indirect/induced impacts.

3.19 Permits and Related Approvals

Anticipated project permits and approvals include those in Table F-3-29 below.

TABLE F-3-29
Required Permits and Approvals

Permit/Approval	Required Because	Agency
Section 404 Permit	Fill in wetlands under federal jurisdiction	United States Army Corps of Engineers
Section 10 Permit	Construction in or over Navigable Waters of the U.S.	United States Army Corps of Engineers
MPCA General National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit	Potential erosion during construction	Minnesota Pollution Control Agency
DNR Public Waters Permit	Work in river, streams, and wetlands designated as public waters	Minnesota Department of Natural Resources
Water Quality (401) Certification	Fill in wetlands under federal jurisdiction	Minnesota Pollution Control Agency



TABLE F-3-29
Required Permits and Approvals

Permit/Approval	Required Because	Agency
Wetland Conservation Act (WCA) process approval	Fill in wetlands	MnDOT administers WCA for activities on MnDOT R/W or for activities on lands for which MnDOT owns an easement
Final Environment Impact Statement	National and Minnesota Environmental Policy Act thresholds exceeded	FHWA and MnDOT
State Adequacy Determination	Final approval of Minnesota Environmental Policy Act process	MnDOT
Federal Record of Decision	Final approval of National Environmental Policy Act process	FHWA
Section 106 Memorandum of Agreement	Section 106 Adverse Effects	SHPO, FHWA, MnDOT
County Ditch Permit/Approval	Replacement and addition of ditch crossings	Nicollet & Brown Counties
Municipal Approval	Changes to capacity and acquisition of right of way in city limits	Cities of New Ulm, Courtland and Nicollet

3.20 Relationship of Local Short-Term Uses Versus Long-Term Productivity

As discussed throughout this FEIS, the proposed US 14 improvements are based on MnDOT's planning efforts which consider existing and future traffic needs. All highway projects require the investment or commitment of resources that will result in local, short-term impacts and use of resources to accommodate the improvements. These improvements will enhance the long-term productivity that will be brought about by the highway improvements.

3.20.1 No Build Alternative

The No-Build Alternative would have avoided the short-term and localized construction impacts. However, projected traffic growth in the project area would further reduce the operation of the existing road, resulting in reduced traffic safety, reduced mobility, and the possible loss of economic growth opportunities.

3.20.2 Preferred Alternative

The Preferred Alternative, as well as the other Build Alternatives, will result in local, short-term impacts, including those impacts discussed throughout Section 3. Short-term impacts will also include inconvenience to residents, business owners/suppliers, employees, and tourists during construction. Benefits that may be realized by construction of the Preferred Alternative include:

- Increased long-term productivity, as planned for by the local communities and the region. The US 14 project will increase the potential for area economic development because of improved transportation links to the regional trade centers and beyond;
- Enhanced industrial development and associated employment growth for the region, including increased wages and salaries

Improvements to US 14 are based on comprehensive transportation planning that considers the need for present and future traffic movement within the context of present and future land use development and the environment. Therefore, the local short-term impacts and use of resources by the proposed action are consistent with the maintenance and enhancement of long-term productivity.

3.21 Irreversible and Irrecoverable Commitments of Resources

3.21.1 No-Build Alternative

The increased user costs, increased user travel time, and other hardships, including an anticipated increase in crashes, caused by increased traffic under the No Build Alternative would be irretrievable. The cost and time associated with the decreasing level of service for traffic would also result in an irretrievable commitment of these resources.

3.21.2 Preferred Alternative

Construction requires the commitment of a range of natural, physical, human and fiscal resources. Land acquired for constructing the proposed project is considered an irreversible commitment during the time period the land is used for highway purposes. Right-of-way requirements would convert land from residential, agricultural, commercial/mining, and natural environmental resource uses to highway uses.

The New Ulm Quartzite Quarry is one resource located within the project area that includes “irretrievable” resources that would potentially be impacted by the Preferred Alternative. Unlike some other resources in the project area, the quartzite in the mine cannot be relocated. MnDOT design of the Preferred Alternative best balances impacts to the New Ulm Quartzite Quarry south of existing US 14 and the residential area and the Minnesota Valley Lutheran High School north of the highway.

The Preferred Alternative, as well as the other Build Alternatives, involves the commitment of considerable amounts of fossil fuels, labor, and highway construction materials such as steel, cement, aggregate, and asphalt material. In addition, considerable labor and natural resources would be used in fabricating and preparing construction materials. Those resources are generally not retrievable. The use of these materials for the US 14 project will not have a substantial adverse effect on future availability of such resources. Construction will also involve irretrievable federal, state, and local funding. Land converted from private to public uses would be removed from the rolls of various taxing districts.

Committing resources is based on the concept that residents in the project area, region, and state would benefit by the improved capacity and safety that would result from the proposed



improvements. The benefits such as improved access to businesses and community services, increased safety, and reduced travel times, and increased economic development warrant the long term commitment of these resources.

3.22 Construction and Excess Material

3.22.1 Environmental Consequences

The Preferred Alternative will have impacts to traffic on US 14 during the construction period. The project will also result in noise and dust typically associated with construction activities.

Bridge demolition and other pavement and poor soil removals will necessitate the contractor disposing of the excess materials. Exposed soils during construction will be susceptible to erosion. No unique concerns have been identified.

Noise generated by construction equipment will vary depending on the equipment type, mode and duration of operation, and specific type of work in progress. Typical noise levels at 50 feet from the construction zone will be in the 75-to 95-dBA range. Predictable ranges of noise levels for given distances from the construction zone are listed in Table F-3-30.

TABLE F-3-30
Construction Noise and Distance Relationship

Distance from Construction Site (feet)	Range of Typical noise Levels (dBA)
20	82-102
50	75-95
100	69-89
200	63-83
400	57-77
1,000	49-69

Source: U.S. Environmental Protection Agency

3.22.2 Mitigation Measures

3.22.2.1 Traffic

A traffic management plan will be developed during the design phase and implemented during construction to ensure continuous and reasonably convenient access to residences, businesses, schools, the Swan Lake WMA, the Minnesota River, and other public facilities. At times existing local roads that intersect the highway may be closed during construction to minimize local traffic in the work zone. Construction activities, sequencing, and traffic management plans will be coordinated with local fire, police, and emergency rescue services to minimize emergency response delays during the construction period.

3.22.2.2 Noise

Standard noise specifications will be followed, in addition to adherence with levels established by federal and state ordinances. Construction equipment will be fitted with properly operating mufflers. Construction noise will be controlled by proper maintenance of all construction equipment to ensure that noise is kept to a minimum. Pile driving associated with the project is anticipated to be the noisiest construction activity. Depending on the location and adjacent land uses, the noise impact associated with this activity could be reduced by limiting construction operations to certain hours.

3.22.2.3 Dust

Standard dust specifications will be followed. Dust generated during construction will be minimized through standard dust control measures such as watering. After construction is complete, dust levels are anticipated to be minimal because all soil surfaces would be in permanent cover (i.e., pavement or grassed areas).

3.22.2.4 Air

The construction will conform to federal and state regulations. Construction specifications such as 1717 (Air Pollution), 2051.4 (Haul Roads), 2131 (Calcium Chloride), etc. will be applied to achieve compliance with the MPCA 7005.0550 regulation.

3.22.2.5 Excess Material

During construction, if excess material is to be disposed of outside of the project limits, the contractor will develop a disposal plan that must be approved by the MnDOT Project Engineer. Disposal of excess material will be in compliance with the guidelines listed in the standard specifications, including MnDOT specifications, FHWA policies, and environmental laws and regulations. Disposal will not occur in wetlands, floodplains, or other environmentally sensitive areas. The contractor will dispose of unusable excavated material in accordance with state regulations and special provisions to ensure protection of wetlands, waterways, and other environmentally sensitive areas. Waste and demolition material from project construction activities will be disposed of in accordance with the standard specifications or special provisions to ensure protection of wetlands, waterways, and other environmentally sensitive areas. Erosion and sedimentation will be controlled in accordance with temporary and permanent erosion and sediment control plans, MnDOT Standard Plans and standard specifications.

Demolition of the existing and construction of the new US 14 bridge over the Minnesota River will be undertaken in a manner that does not cause unnecessary risk to the quality of the water in the Minnesota River. MnDOT does not dictate the means and methods of bridge removal to the contractor since this can limit creativity and efficiency. However, MnDOT can put limitations on the contract. The contract language will include a provision that the contractor will not be allowed to use explosives to drop the superstructure into the river. The contractor will also be required to submit the demolition plan to the various permitting agencies for review prior to commencing construction.

Demolition and construction will be conducted in a manner that will be in compliance with applicable water quality standards. This work of the existing bridge will likely have a temporary impact on the water quality in the Minnesota River. However, various measures will be used to contain the bridge material to the greatest extent practicable. New construction will be done in such a way as to minimize disturbance to river sediments and contain those sediments that become waterborne.

Temporary mitigation measures to minimize physical impacts to the water resource may include floating booms where appropriate to contain concrete dust and debris to the greatest extent practical within the river. Other erosion control measures for the land side of the project used for removal of the abutments and piers may include silt fences, temporary sediment

basins, diversion dikes, and other common practices. The bridge work will be conducted under permits from the U.S. Army Corps of Engineers, the DNR, and the MPCA.

3.22.2.6 Storm Water

The MPCA will serve as the permitting authority for storm water issues related to roadway construction, including a general storm water permit for construction activity under Phase II of the NPDES program. Compliance with the NPDES Construction Stormwater permit will be met through the use of BMPs to mitigate impacts affecting water quality, runoff volumes and discharge rates altered by roadway construction. Storm water detention ponds will be used for runoff treatment and attenuation, where practical, and determined necessary during more detailed design of the Preferred Alternative.

As mentioned above, a NPDES Construction Stormwater permit will be obtained from the MPCA prior to construction. This permit will include an erosion control plan, as well as BMPs contained in MnDOT's standard specifications, details and special provisions. All disturbed areas will be sodded or seeded, leaving temporary erosion control structures in place until vegetation has been established. Erosion of all exposed soils within the project corridor will be minimized by utilizing the appropriate BMPs during construction. Implementation of BMPs in the final construction and site grading plans greatly reduces the amount of construction-related sedimentation and helps control erosion and runoff. Ditches, dikes, siltation fences, ditch checks and sedimentation basins will be utilized, as needed, as temporary erosion control measures during construction.



SECTION 4

Comments and Coordination

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Comments and Coordination

4.1 Introduction

Section 4 describes coordination that was conducted with the public and with government agencies regarding the project. An extensive coordination effort was conducted in order to better understand the environment within which the project would be built and assess the impacts to people and resources. A variety of methods were used to communicate project information and solicit input including newsletters, a website, public meetings, a Project Advisory Committee, and formal public hearings on the Draft EIS. This section includes comments received on the Draft EIS and responses to the substantive comments.

4.2 Public Involvement Activities

4.2.1 Newsletters

Newsletters were used to inform citizens about project details, upcoming meetings, and opportunities to provide input on the project. Newsletters were sent to a mailing list of over 700 people living along or near the US 14 corridor. The mailing list is updated as people request to be added. The list below summarizes the content of the three newsletters that were sent out.

- *Newsletter #1, June 2004* – announced the start of work on the DEIS, described the alternatives being studied, discussed the decision making process, provided information for the first series of local informal open house meetings (held in July 2004) and provided contacts for local leaders serving on the Project Advisory Committee.
- *Newsletter #2, September 2004* – described the alternatives being studied in detail in the DEIS (as documented in the Amended Scoping Decision Document); provided information regarding public involvement opportunities during the summer of 2004, and announced a public information meeting held on October 13, 2004.
- *Informational Postcard, April 2005* – provided information on informal open houses held in April 2005.
- *Newsletter #3, January 2008* – announced the availability of the DEIS and the public hearing.

A Project Website was placed on the MnDOT website in June of 2004. The website address is: <http://www.dot.state.mn.us/d7/projects/14newulmtonmankato/>. Items on the website include:

- *Background information* – including the *US 14 Corridor Management Plan*, *Scoping Document*, and *Scoping Decision Document*
- *Project updates* – including schedule information, members of the Project Advisory Committee, PAC meeting summaries, information for contacting MnDOT staff to comment on the project

- *Project related documents*—including maps and documents which have been developed throughout the Draft EIS which are listed below:
 - *Interchange Workshop Report* (August 2004);
 - *Alternatives Screening Recommendations Memo* (October 2004);
 - *Amended Scoping Decision Document* (October 2005); and
 - Several wetland related documents, including the *Preliminary Draft Wetland Delineation Technical Report* (January 26, 2005) and the *US 14 Wetland Technical Report: Supplement* (January 24, 2006)
 - *Draft Environmental Impact Statement* (December 2007)

4.2.2 News Releases

Press releases to multiple newspaper and media outlets were used to provide information about DEIS related public meetings and other activities; as well as to provide project updates. Press releases distributed to date are available on the Project Website under the heading, “News Releases.”

4.2.3 Public Meetings

Three types of public meetings were used during the environmental review process—informal open houses, public information meetings, and DEIS public hearings. The public was notified of the meetings through newsletters, the project website, and news releases. Public meetings held to date are listed in Table F-4-1.

TABLE F-4-1
US 14 Public Meeting Schedule

Meeting	Date	Location	Time
Informal Open House	July 1, 2004	Courtland Community Center	4:30 to 6:30 p.m.
Informal Open House	July 8, 2004	North Mankato Fire Station #2	4:30 to 7:00 p.m.
Informal Open House	July 20, 2004	New Ulm City Hall	4:30 to 6:30 p.m.
Informal Open House	July 21, 2004	Inlaws Restaurant in Nicollet	4:30 to 6:30 p.m.
Public Information Meeting	October 13, 2004	Courtland Community Center	4:00 to 7:00 p.m.
Informal Open House	April 19, 2005	Inlaws Restaurant in Nicollet	4:00 to 7:00 p.m.
Informal Open House	April 21, 2005	New Ulm City Hall	4:00 to 7:00 p.m.
Public Hearing	February 5, 2008	Courtland Community Center	3:00 to 6:00 p.m.
Public Hearing	February 7, 2008	Nicollet High School	4:30 to 7:30 p.m.
Public Information Meeting	August 20, 2009	Courtland Community Center	6:30 p.m.

4.2.3.1 Informal Open House Meetings

Informal open houses were geared towards providing local landowners, residents, and elected officials with project information. The meetings lasted two hours and were scheduled for the late afternoon and early evening. A total of six informal open houses were held (see Table F-4-1). These meetings provided basic information about the project, including the EIS process; the variety of alternatives under consideration; and offered opportunities for public involvement. Over 100 people participated in this series of meetings. Participants had the opportunity to ask questions and provide input on the alternatives by writing on the displayed layouts or filling out comment forms. MnDOT representatives and consulting staff were available to answer questions. The second series of meetings was held in April 2005. These meetings focused on providing the public the opportunity to preview the DEIS and review the impacts of each corridor alternative.

4.2.3.2 Public Information Meetings

Public information meetings were more structured than informal open houses, with a focus on providing information and gathering input from communities and other stakeholders. One public information meeting was held on October 13, 2004. Another was held on August 20, 2009 to present the Preferred Alternative.

4.2.3.3 Public Hearings on the DEIS

Two public hearings were held to ensure that interested parties had an opportunity to learn about project details, ask questions, and provide formal comments. They were held in Courtland and Nicollet on different days (February 5 and 7, 2008) and at different times to make them accessible. Each hearing consisted of a presentation and an open house. Each of the events was well attended and resulted in several comments on the DEIS.

4.2.3.4 Meetings with Local Governments, Agencies, and Landowners

Additional meetings were held with public and agency representatives as well as the public, as needed, to provide the opportunity for one-on-one and small group discussions to better understand their opinions and concerns.

4.2.4 Project Advisory Committee

The Project Advisory Committee (PAC) was created as a forum for appointed representatives from counties, cities, townships, and other agencies in close proximity to the project corridor, to provide input on project issues. Table F-4-2 provides a list of communities and groups represented on the PAC. Committee members provided the group with the point of view of their agency and were also responsible for taking

TABLE F-4-2
Project Advisory Committee Representation

• MnDOT	• City of North Mankato
• Nicollet County	• City of Mankato
• Brown County	• Belgrade Township
• Blue Earth County	• Courtland Township
• City of New Ulm	• Nicollet Township
• City of Courtland	• Region 9 Development Commission
• City of Nicollet	• Minnesota State University Mankato

information back to the group they represent. PAC meetings were held at key points in EIS development. Table F-4-3, below, lists the PAC meetings and identifies the focus of each meeting.

TABLE F-4-3
Public Advisory Committee Meeting Dates and Meeting Topics

Date	Focus
July 1, 2004	EIS purpose and process, PAC member role, public involvement plan and upcoming activities, and development and screening of alternatives
September 23, 2004	Project overview, screening of alternatives, and upcoming public involvement.
February 2, 2005	DEIS alternatives to study in detail, preliminary environmental impact comparisons, and upcoming public involvement opportunities
February 15, 2007	Reintroduction of the project after one year without committee activity; introduce new PAC members; preview DEIS, including impacts
December 12, 2007	Preview content of DEIS Public Hearing
August 10, 2009	Present Preferred Alternative to PAC members.

4.2.5 Federal, State, and Local Agency Coordination

In addition to the PAC, several federal, state, and local agencies participated in the environmental review process. The following is a list of agencies that participated in the process:

Federal Agencies

- U.S. Army Corps of Engineers*
- U.S. Fish and Wildlife Service*
- U.S. Department of Agriculture Natural Resource Conservation Service*
- U.S. Environmental Protection Agency
- National Park Service

* denotes Cooperating Agencies

State Agencies

- Minnesota Department of Natural Resources (Swan Lake Wildlife Management Area, Ecological Services)
- Minnesota Pollution Control Agency (Regional Environmental Management Division)
- Minnesota Board of Water and Soil Resources
- State Historic Preservation Office

Other Entities

- Nicollet County Soil and Water Conservation District
- Region 9 Development Commission
- Mankato State University (Urban and Regional Studies Department)

Representatives from the agencies listed above primarily participated in meetings and workshops focused on a specific EIS topic – including intersection and interchange concepts and environmental resources. Table F-4-4 outlines the schedule and focus of agency meetings that have occurred over the course of EIS development.

TABLE F-4-4
Federal, State, and Local Agency Meetings

Meeting Topic	Date	Attending Agencies	Focus
Interchange Concept Workshop	June 17, 2004	Local counties, cities, and MnDOT staff	<ul style="list-style-type: none"> • Identified possible interchange locations/configurations; • Considered interchange influence on alignments • Identified environmental and screening considerations. • Resulted in interchange concepts at four locations (TH 15/CR 21, CR 37, CR 24, and CR 23). <p>See the <i>Interchange Workshop Report</i> on the project website for more information.</p>
Environmental Resource Agency Workshop and Field Trip	July 21, 2004	Local, state, and federal agencies	Established contact with environmental resource to introduce the project and obtain input on alternative development and potential resource concerns.

TABLE F-4-4

Federal, State, and Local Agency Meetings

Meeting Topic	Date	Attending Agencies	Focus
Amended Scoping Decision Document Coordination Meeting	Sept. 15, 2004	Nicollet County Board	Introduce corridor study, share information, and discuss county involvement.
Swan Lake WMA & Preliminary Wetland Mitigation Opportunities	Feb. 2, 2005 & August 2005	Minnesota DNR	Discussed the resource management plans for the Swan Lake Wildlife Management Area; and preliminarily discussed how wetland mitigation may provide an opportunity for stewardship to further the goals of the WMA
Wetlands	March 5, 2005	Wetland Technical Evaluation Panel—composed of various local, state, and federal agencies	MnDOT presented the wetland delineation efforts that had been completed to date for the US 14 project area
Wetlands	May 2, 2005	US Army Corps of Engineers	US Army Corps Section 404 permit Pre-Application Meeting
Cultural Resources	Aug. 16, 2005	Minnesota DOT Cultural Resources Unit and Archaeological Consultant	Discussed findings of archaeological survey and the preliminary findings of the architectural history survey
Cultural Resources	June 9, 2006	Minnesota DOT Cultural Resources Unit	Discussed findings of the historic architectural and archaeological resource reports
Cultural Resources	December 13, 2006	MnDOT Cultural Resources Unit	Discussed with MnDOT's historian and archaeologist the potential Section 4(f) uses and Section 106 adverse effects
Cultural Resources	February 13, 2007	MnDOT Cultural Resources Unit and State Historic Preservation Office	Field day to verify the potential Section 4(f) uses and Section 106 Adverse Effects
DEIS Overview	January 10, 2008	Nicollet City Council	Discussed content of DEIS.
DEIS Overview	January 16, 2008	Nicollet County Board	Discussed content of DEIS.
DEIS Overview	January 17, 2008	Courtland Planning Commission	Discussed content of DEIS.
Cultural Resources	Summer 2008	MnDOT Cultural Resources Unit, State Historic Preservation Office, and Nicollet County Historical	Reviewed railroad box culverts and alignment in the field to determine whether they should be considered eligible for listing on the National Register of Historic Places.

TABLE F-4-4
Federal, State, and Local Agency Meetings

Meeting Topic	Date	Attending Agencies	Focus
		Society	
Wetlands	November 18, 2008	U.S. Army Corps of Engineers	Discussed issues with alternatives as they impact surface waters and wetlands.
Wetlands	August 6, 2009	U.S. Army Corps of Engineers	Presented Preferred Alternative and discussed reasoning for selection and documentation needs.
Various Issues	August 19, 2009	Minnesota DNR	Presented Preferred Alternative and discussed DNR concerns.
Various Issues	March 11, 2010	Minnesota DNR	Continued discussion with DNR on how to best mitigate concerns regarding the Preferred Alternative.

4.3 Responses to Comments on the Draft EIS

Following the circulation of the Draft EIS, public hearings were held, allowing the public to offer comments on the project and the Draft EIS. The comment period remained open until March 17, 2008. The following section includes comments on the project and the DEIS which were submitted by individuals, interest groups, and government agencies, as well as MnDOT and FHWA responses to those comments.

4.3.1 Public Hearing Comments and Responses

Throughout several years of project development for this project, a large number of public meetings were held in various locations in the corridor. These meetings have been held to present information to citizens, and also to hear comments and questions the public may have had regarding the project.

In February 2008 public hearings were held on the project and the Draft EIS. These public hearings employed the “open house” format. The first public hearing was held in Courtland on February 5th, 2008 at the Courtland Community Center. The second was held in Nicollet on February 7th at the Nicollet High School.

At the Public Hearings attendees were invited to provide comments through one of two ways:

- Written Statements. Attendees were invited to submit written comments on forms which were provided at the hearings or in letter form. Comments received via e-mail were also accepted
- Oral Statements. Attendees were also invited to provide an oral statement to a court reporter that was present at both hearings. A total of 25 people offered oral testimony at the

hearings. A transcript was prepared, and is available at the MnDOT Offices in Mankato by contacting the Project Manager identified on the title page of this FEIS.

Responses to Oral Comments are provided here. Written Comments are responded to in the next section of this FEIS. At the public hearings, a total of 27 comments were offered, which have been assembled into recurring themes or questions, as follows.

Comments regarding property acquisition. These comments typically involved questions about specific pieces of property or farmsteads and operations. Questions included those about specific access locations, being able to cross the roadway, and general questions about property acquisition.

Response: Many of the questions about specific access points cannot be answered at this point in time. The specific location and type of access to individual farmsteads and other rural residences will be developed later in the project development process, during detail design. A part of the need for the project was to reduce the number of direct access points to US 14 within the project corridor. As a result, properties that currently access US 14 directly will have their access rerouted to a local road whenever it is reasonable from a cost and impact standpoint to do so. Otherwise accesses may be consolidated and realigned to safer locations. In exceptional cases, access to the four-lane highway will be permitted, but will generally be as right in right out access (i.e. no left turns to or from the property). Any property which cannot be provided reasonably convenient and safe access to the new highway may be acquired as a result.

As detail design moves forward and these access issues become better defined, further coordination will take place with affected landowners.

Comments regarding a location or DEIS Alternative Preference or questioning the need for the proposed improvement.

Response: Many of these comments simply state a preference for one or another of the alternatives evaluated in the DEIS, often for reasons relative to how and individual property may be impacted. The identification of the US 14 Preferred Alternative and the reasons for its selection are found in Section 2 of this FEIS.

A number of the oral comments offered at the public hearings expressed a concern over impacts to farmland. The potential impacts to farmland and farm operations was an important consideration in this project development process, going back to the selection of alternatives to study during the scoping phase. Reducing impacts to farmland and farm operations was one of the important considerations in selecting the Preferred Alternative for the US 14 project.

Comments regarding safety. A number of comments mentioned the safety of the access to and from the Minnesota Valley Lutheran High School, the intersection of existing US 14 and CR 37, the intersection and proposed interchange at US 14/MN 15 and CR 21, and the general need for an improved US 14 between New Ulm and points east.

Response: Increasing safety to the traveling public was and remains one of the most important elements in the purpose and need for the US 14 project. A four lane facility will greatly reduce the accident potential on this section of roadway, in particular head-on and other crashes with a high potential for serious personal injury. Further, the provision of improved intersections, including possible interchanges, at higher volume intersections will greatly reduce crashes at those locations. The interchange at MN 15/CR 21 will also provide substantial safety benefits. Although some questioned the use of roundabouts on this highway, MnDOT and FHWA are confident that roundabouts would function effectively at this intersection, and will provide a substantial safety benefit by greatly reducing the potential for right angle crashes.

The safety of the access to and from the Minnesota Valley Lutheran High School was a subject of great concern to the public, who submitted a large volume of comments on this point. The safety of that intersection is discussed in Section 2.2.1.1 of the FEIS.



4.3.2 Governmental Agency Comments and Responses



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAR 11 2008

REPLY TO THE ATTENTION OF:

(E-19J)

Thomas Sorel, Division Administrator
Federal Highway Administration - Minnesota Division
Galtier Plaza, Suite 500
380 Jackson Street
St. Paul, Minnesota 55101

RE: Draft Environmental Impact Statement, US 14 Reconstruction from Front Street in New Ulm to Nicollet County Road 6, Brown and Nicollet Counties, Minnesota. (CEQ No.: 20070550)

Dear Mr. Sorel:

The United States Environmental Protection Agency Region 5 (U.S. EPA) has reviewed the above-referenced Draft Environmental Impact Statement (DEIS) dated December 2007, pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act.

The Minnesota Department of Transportation (MnDOT), in coordination with the Federal Highway Administration (FHWA), is proposing improvements to US 14 between New Ulm (including the US 14 Minnesota River bridge) to just north of Mankato. The purpose of the project, in part, is to alleviate existing and forecasted safety and capacity problems. The DEIS identifies that the proposed timeframe to implement the project is long-term because funds needed to begin construction are not anticipated until 2015 to 2023. The main short-term goal is to establish a sound plan for the preservation of right-of-way (ROW) for the preferred alternative identified in the Final EIS (FEIS).

The DEIS study area for this approximately 23-mile long roadway project is divided into a west segment and an east segment. The DEIS evaluates three Build Alternative Options for the west segment (W1, W2, W3) and four Build Alternative Options for the east segment (E1, E2, E3, E4). All seven Build Alternative Options are designed as 4-lane divided highways and may include using the existing US 14 alignment and/or new alignment. The preferred alternative will be comprised of one west Build Alternative Option and one east Build Alternative Option. A preferred alternative is not identified in the DEIS.

Based on our review, we rate all seven Build Alternative Options as EC (environmental concerns) and rate the DEIS as EC-2 (environmental concerns, insufficient information). A copy of our DEIS summary rating sheet is enclosed. Our detailed comments follow.



There are a variety of resources, including but not limited to, wetlands, rivers/streams, floodplains, historic properties, and farm land, that would be impacted by any of the Build Alternative Options. We recommend the FEIS provide a clear and detailed explanation of how the various impacts and identified mitigation for the impacts associated with each Build Alternative Option were considered and discuss how trade-offs were made in order to determine the FEIS Preferred Alternative.

A1

Potential wetland impacts of the build alternatives range from 9.8 to 38.1 acres. All forested wetland impacts are associated with the riparian corridor of the Minnesota River and range from 3.24 to 17.37 acres. The DEIS identifies that MnDOT and the Minnesota Department of Natural Resources (MnDNR) anticipate that wetland impacts for any of the build alternatives could be mitigated in the Swan Lake Wildlife Management Area (WMA). The DEIS describes the WMA as a prairie pothole surrounding Swan Lake and the goal for the Swan Lake WMA is to provide, expand and preserve habitat for waterfowl. We agree that lost functions and values associated with emergent and/or scrub-shrub wetlands could most likely be adequately compensated for in the Swan Lake WMA. However, we suspect that the Swan Lake WMA may not be suitable for compensating for the lost functions and values of the riparian forested wetlands associated with the Minnesota River. We recommend the FEIS identify potential forested wetland compensation areas associated with the Minnesota River. Potential mitigation areas might include, but need not be limited to, degraded areas that would benefit from enhancement within the Minnesota River corridor near the project study area. We recommend the FEIS identify how MnDOT and local communities plan to preserve potential wetland mitigation areas, particularly areas suited for riparian forested wetland mitigation.

A2

At this time, based on the impacts and mitigation information in the DEIS, U.S. EPA supports a combination of Build Alternative Option W2 and Build Alternative Option E4 (Alternative W2/E4) as a build preferred alternative. This combination has the least amount of direct wetland impacts, 9.8 acres. It also has the least amount of forested wetland impacts, 3.24 acres. Alternative W2/E4 would likely be the Least Environmentally Damaging Practicable Alternative (LEDPA) for a future U.S. Army Corps of Engineers' (Corps) permit in compliance with the Clean Water Act, Section 404(b)(1) guidelines.

A3

Both the Minnesota River and Heymans Creek are identified as impaired waters. To insure that the proposed project will not add to further impairment of these surface waters, we recommend the FEIS identify areas that could be used for stormwater runoff treatment and hazardous spills containment. The FEIS should disclose when and how MnDOT and local communities plan to preserve the potential stormwater treatment and containment areas identified.

A4

Since the DEIS identifies that the main short-term goal is to establish a sound plan for the preservation of ROW after a preferred alternative has been selected, we recommend the plan for the preservation (preservation plan) of the FEIS preferred alternative ROW be

A5

Response

- A1 A detailed explanation of the rationale for selecting the Preferred Alternative is provided in Section 2.3.2 of the FEIS.
- A2 Unavoidable wetland losses will be mitigated by restoration of in-kind wetlands to the extent possible. For a portion of the wetland impacts, incorporating restored wetlands into the Swan Lake WMA will further the management objectives of the DNR and be beneficial for both agencies. In other cases, particularly riparian forested wetlands, there are other, more appropriate mitigation areas. During permitting, MnDOT will work with the wetland Technical Evaluation Panel to identify restoration locations within the Minnesota River Valley near the project area.

included in the FEIS. We recommend both the FEIS and the preservation plan identify the provisions for preserving areas that could be used to compensate for impacts, such as riparian forested wetland impacts, stormwater treatment and hazardous spills containment associated with the preferred alternative identified in the FEIS.

Finally, we request that the information concerning U.S. EPA in *Appendix C – Distribution List* be corrected to read as follows:

Federal Agencies

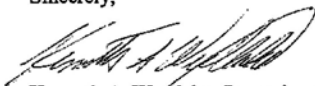
U.S. Environmental Protection Agency
Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance
77 W. Jackson Blvd., (Mail code: E-19J)
Chicago, IL 60604-3590

Environmental Resource Partners

U.S. Environmental Protection Agency
Virginia Laszewski, Environmental Scientist
NEPA Implementation
Office of Enforcement and Compliance Assurance
77 W. Jackson Blvd., (Mail code: E-19J)
Chicago, IL 60604-3590

We look forward to reviewing the FEIS for this proposal. Please provide us with two complete hard copies and two CD versions of the FEIS when it is available. If you have any questions, please contact me or Virginia Laszewski of my staff at (312) 886-7501.

Sincerely,



Kenneth A. Westlake, Supervisor
NEPA Implementation
Office of Enforcement and Compliance Assurance

Enc.: Summary of Rating Definitions

cc: Robert Whiting, U.S. Army Corps of Engineers, ATTN: OP-R/JJY, 190 Fifth Street
East, St. Paul, MN 55101-1638

- A3 While the combination of DEIS Alternatives W2 and E4 may reduce wetland impacts, they are not without substantial impacts of their own in a number of important environmental areas. Those impacts are detailed in Section 2.3.2. MnDOT and FHWA recognize that, in selecting an alternative with greater wetland impacts, it must be demonstrated that it is the Least Environmental Damaging Practical Alternative (LEDPA). Sections 2.3.2 and 3.9 summarize why the Preferred Alternative is the LEDPA.
- A4 The project will require a NDDES Construction Stormwater permit which will specify surface water control requirements, including a storm water pollution prevention plan. MnDOT will fully comply with all conditions of the NPDES Construction Stormwater permit. The earliest construction (of the new Minnesota River Bridge at the west end of the project) is planned for 2018. The funding and schedule for the balance of the 22.5 mile project is uncertain. As a result, detailed design has not begun, and it is not yet feasible for MnDOT to specify locations for water management facilities.
- A5 Completion of the FEIS is one step toward right of way preservation for the project. A preservation plan has not yet been prepared as it requires more extensive design.



United States Department of the Interior
OFFICE OF THE SECRETARY
Washington, DC 20240



MAY - 9 2008

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PEP/NRM

ER 08/235

Mr. Tom Sorel
Division Administrator
Federal Highway Administration
Galtier Plaza
380 Jackson Street, Suite 500
St. Paul, Minnesota 55101-2904

Dear Mr. Sorel:

As requested, the Department of the Interior (Department) has reviewed the draft Environmental Impact Statement (EIS) and Section 4(f) Evaluation for **US-14 Reconstruction, from Front Street in New Ulm to Nicollet County Road 6, Brown and Nicollet Counties, Minnesota**. The Department offers the following comments and recommendations for your consideration.

Section 4(f) Comments

The Federal Highway Administration (FHWA) and the Minnesota Department of Transportation (MnDOT) proposes to improve a 22.5-mile segment of US-14 to a 4-lane divided highway. The draft Section 4(f) Evaluation identified several properties in the project study area eligible to be considered under Section 4(f) of the Department of Transportation Act of 1966 (48 U.S.C. 1653(f)). Of the properties identified as eligible, all six have been determined eligible for the National Register of Historic Places. However, this documentation did not identify a preferred alternative and impacts to these properties may change as design options change. In addition, there is no evidence that the Minnesota State Historic Preservation Officer has responded to the FHWA or the MnDOT on the eligibility of or effect to historic properties, other than participation in a series of meetings held between 2005 and 2007.

Therefore, as far as properties identified as eligible for a Section 4(f) Evaluation consideration, the Department cannot concur with the FHWA that there are no feasible or prudent avoidance alternatives or that all possible planning has been employed to minimize potential harm to these resources.

B1

Response

B1 Additional analyses and final determinations regarding Section 4(f) properties has been conducted since publication of the DEIS. The Final Section 4(f) Evaluation contains a complete analysis of the effects of the project on potentially eligible Section 4(f) properties including discussions of avoidance alternatives and planning to minimize harm.

In addition, Section 3.13 of the FEIS describes additional coordination with the Minnesota SHPO; Section 4.4 includes SHPO correspondence; and Appendix B includes the MOA between FHWA, SHPO and MnDOT regarding historic properties impacts and mitigation for the FEIS Preferred Alternative.



Swan Lake Wildlife Management Area

Three public park and recreation areas are listed, including the Swan Lake Wildlife Management Area (WMA). However, the Section 4(f) Evaluation indicates that the WMA was determined not to be eligible for Section 4(f) consideration, with the exception of the boat landings. The determination provided in section 3.14.1 of the draft EIS (page 3-83) states: "As a whole, the WMA is not considered a Section 4(f) resource because its purpose is not to protect a specific species and because hunting is allowed. Therefore, it is clearly not a refuge."

This statement is inconsistent with the functional definition of a refuge as provided in Item #20 of the FHWA revised *Section 4(f) Policy Paper* (March 1, 2005). The Policy Paper states: "...for purposes of Section 4(f), a wildlife and waterfowl refuge is publicly owned land (including waters) where the major purpose of such land is the conservation, restoration, or management of endangered species, their habitat, and other wildlife and waterfowl resources." The Policy Paper goes on to state: "...recreational activities, including hunting and fishing, are consistent with the broader species preservation."

According to information provided on the Minnesota Department of Natural Resources (DNR) Web site:

"Wildlife management areas (WMAs) are part of Minnesota's outdoor recreation system and are established to protect those lands and waters that have a high potential for wildlife production, public hunting, trapping, fishing, and other compatible recreational uses. They are the backbone to DNR's wildlife management efforts in Minnesota and are key to: (1) protecting wildlife habitat for future generations, (2) providing citizens with opportunities for hunting, fishing and wildlife watching, and (3) promoting important wildlife-based tourism in the state."

The draft EIS acknowledges that the Swan Lake WMA serves these primary purposes, by stating on page 3-83: "The WMA is primarily intended for game and aquatic species management and is used publicly for hunting of waterfowl, pheasants, turkey, and deer. Fishing in Swan Lake is also common." Because a primary purpose of the Swan Lake WMA is to provide for the management of wildlife and that such a purpose is consistent with the functional definition of a refuge provided in the FHWA Policy Paper, we believe that the WMA as a whole be considered a Section 4(f) resource for its refuge function.

We also believe that the entire WMA should be considered a Section 4(f) resource as a recreational area under Item #2 of the FHWA Policy Paper. The determination in section 3.14.1 of the draft EIS appears to dismiss this possibility: "The recreational use is dispersed in nature and the majority of the resource is not developed for public recreational use." We assume the document may be relying on part of Item #2 of the Policy Paper wherein the FHWA asserts, "...incidental, secondary, occasional, or

dispersed park, recreational or refuge activities do not constitute a major purpose." Although there is no mention of such distinctions in the Section 4(f) legislation (49 U.S.C. 303 and 23 U.S.C. 138), this assertion is reasonable when applied to certain types of lands, particularly multiple-use public land holdings which function primarily for purposes other than park, recreation, or refuges (e.g., national and state forests, etc.). However, when substantial amounts of public funds have been expended to purchase and manage lands such as WMAs to provide for sustainable wildlife-based recreational opportunities, such as hunting, it is not reasonable to assume the provision of such dispersed recreational opportunities does not constitute a primary purpose of such lands. National recreation areas, which are acquired and managed to preserve lands to provide for a variety of dispersed recreation activities including hunting, fishing, hiking, boating, and wildlife viewing, are accorded Section 4(f) protection. We see no reason that State-owned areas (WMAs) that provide for similar dispersed recreational activities as one of their primary purposes and functions should not be accorded the same Section 4(f) protection as Federal recreation areas.

We request that the FHWA reevaluate the determination of non-applicability of Section 4(f) to the WMA as a whole. We believe that the Swan Lake WMA, as well as most other State WMAs, should be considered Section 4(f) resources based on the purposes they serve and functions they provide as both refuges and recreational areas. If, upon reevaluation, it is determined that the Swan Lake WMA is a Section 4(f) resource, a Section 4(f) Evaluation should be provided to the Department for review unless it is determined through coordination with the Minnesota DNR that use of one of the alternative forms of evaluation (e.g., a *de minimus* impact finding) is appropriate.

B2

We also recommend that Minnesota DNR be asked to check its records to determine if either of the parcels of the WMA potentially impacted by the project alternatives is encumbered by any Federal grant-in-aid assistance. A quick review of U.S. Fish and Wildlife Service (FWS) records indicates that portions of the Swan Lake WMA have been acquired or developed with grant-in-aid assistance provided through the FWS to the Minnesota DNR under various grant programs, including the Federal Aid in Wildlife Restoration Act of 1937 (Pittman-Robertson Act). The primary purposes for which states have the authorization to use Pittman-Robertson funds are: (1) the restoration, conservation, management, and enhancement of wild birds and wild mammals (i.e., a refuge purpose) and (2) the provision for public use of and benefits from these resources (i.e., a recreation purpose).

B3

The Department believes that all State lands and interests therein acquired, developed, or improved with Pittman-Robertson grants are protected by Section 4(f). The Department's Solicitor has advised the bureaus that it is improper for a bureau to issue an authorizing document for use of Section 4(f) type lands under the Department's jurisdiction, or to approve the use of Section 4(f) lands in which the Department has an interest because of grant-in-aid terms, for a federally-funded transportation project until (1) the Department has reviewed and commented on the Section 4(f) statement and (2) the U.S. DOT approves the use of the land for transportation purposes in accordance



with the two provisos of Section 4(f), and provides a copy of the approved Section 4(f) determination to the affected bureau. If it is determined that there is a Federal grant-in-aid encumbrance on either of the parcels of the WMA potentially impacted by the project alternatives, please coordinate with the FWS contact provided below.

General Comments

With the exception of the issues discussed in the Section 4(f) comments above regarding the Swan Lake WMA, the document adequately addresses the concerns of the Department regarding fish and wildlife resources, as well as species protected by the Endangered Species Act.

Summary Comments

The Department cannot concur with either proviso of Section 4(f) for the properties identified as eligible for Section 4(f) properties because a preferred alternative has not been selected and the specific impacts to eligible resources has yet to be determined. In addition, until the preferred alternative is selected, we cannot address whether mitigation is sufficient to minimize harm to these resources. Finally, the Department requests that the FHWA reevaluate the determination concerning the applicability of Section 4(f) to the Swan Lake WMA as a whole. We also recommend that the Minnesota DNR be asked to check its records to determine if either of the parcels of the WMA potentially impacted by the project alternatives is encumbered by any Federal grant-in-aid assistance such as Pittman-Robertson funding.

B2

B3

The Department has a continuing interest in working with the FHWA and the MnDOT to ensure impacts to resources of concern to the Department are adequately addressed. For continued consultation and coordination with the issues concerning historic resources identified as Section 4(f) resources, please contact Regional Environmental Coordinator Nick Chevance, Midwest Regional Office, National Park Service, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone 402-661-1844. For matters related to fish and wildlife resources or the Swan Lake WMA, please continue to coordinate with Field Supervisor Tony Sullins, Twin Cities Field Office, U.S. Fish and Wildlife Service, 4101 East 80th Street, Bloomington, Minnesota 55425-1665, telephone: 612-725-3548.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
for Willie R. Taylor
Director, Office of Environmental Policy
and Compliance

Response

B2 FHWA has again considered the applicability of Section 4(f) to the Swan Lake WMA, as requested in this comment. The nature of management plans addressing the Swan Lake WMA; the history and logic behind FHWA’s previous determination that Swan Lake WMA is a multiple use facility; conservation and recreational activities within the WMA; and the function of the WMA land directly impacted by the proposed project are among the items considered in FHWA’s reevaluation of Swan Lake WMA’s Section 4(f) status. Based on this reevaluation, FHWA still believes the WMA is most appropriately classified as a multiple use public land holding because the WMA has a variety of activities and experiences available within its boundaries. FHWA therefore concludes



that the overall WMA is not covered by Section 4(f). However, portions of the WMA, i.e., use-specific sites including, but not limited to boat landings, are covered by Section 4(f). No sites covered by Section 4(f) are affected by the Preferred Alternative.

While the WMA has been determined to be not covered by Section 4(f), no inference should be drawn that MNDOT or FHWA is not committed to protecting this valuable resource. The Swan Lake WMA is an important public resource. We have had extensive coordination with the owners and managers of the WMA regarding impacts and mitigation, as well as potential enhancement opportunities. We fully anticipate that some part of the wetland impacts of the project can be mitigated within the WMA. MnDOT and the DNR are hopeful the project will provide an opportunity to move forward with some of the Swan Lake Recovery Plan efforts.

- B3 Coordination with the DNR has confirmed that Pittman-Robertson Funds have been applied to portions of the Swan Lake WMA that are proposed to be acquired for this project. Information regarding this funding has been added to Section 3.14 of the FEIS.





REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

ST. PAUL DISTRICT, CORPS OF ENGINEERS

190 FIFTH STREET EAST, SUITE 401

ST. PAUL, MN 55101-1638

MAR 17 2008

Operations
Regulatory (MVP-2005-70-JKA)

Mr. Peter Harff
Project Manager
Mn/DOT District 7
501 South Victory Drive
Mankato, MN 56001

Dear Mr. Harff:

As a Cooperating Agency for the preparation of an Environmental Impact Statement (EIS) for the proposed project (State Project 5200-03) to improve approximately 22.5 miles of U.S. Highway 14 from Front Street in New Ulm, to County Road 6 near North Mankato, primarily in Nicollet County, Minnesota, the U.S. Army Corps of Engineers St. Paul District (District) has reviewed the Draft EIS dated December 2007 that has been prepared for the project. The District comments are enclosed.

If you have any questions, contact Jon K. Ahlness in our St. Paul office at (651) 290-5381. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

for Robert J. Whiting
Chief, Regulatory Branch

Enclosure

Copy Furnished:

Cheryl Martin, FHWA



U.S. ARMY CORPS OF ENGINEERS, ST. PAUL DISTRICT COMMENTS ON THE
DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR U.S.14
RECONSTRUCTION FROM FRONT STREET IN NEW ULM TO COUNTY ROAD 6
IN NORTH MANKATO – S.P. 5200-03

Comments prepared by Jon K. Ahlness, Environmental Protection Specialist
March 14, 2008

Wetland Delineation and Impacts

Since the project is not expected to begin until at least the year 2015, a delineation of wetlands and determination of direct wetland impacts along the route selected for reconstruction of U.S. Highway 14 will need to be conducted within five years of when the project construction would begin. We expect that further efforts to avoid, minimize, and mitigate for wetland impacts will take place during the design of the proposed project. A Clean Water Act (CWA) Section 404 permit application will need to be submitted to the U.S. Army Corps of Engineers St. Paul District (District) after completion of the wetland delineation and determination of the direct wetland impacts. The Eggers and Reed¹ wetland classification method will need to be used when conducting the wetland delineation. The Eggers and Reed wetland classification will enable a better comparison of wetland impacts to proposed compensatory wetland mitigation for determining whether the mitigation is in-kind and will replace the lost functions and values of the filled wetlands.

C1

C2

C3

C4

Section 3.10.2.2 of the Draft Environmental Impact Statement (DEIS) states that storm water detention ponds would be used as mitigation for unavoidable floodplain impacts. The proposed locations for the detention ponds are not provided in the DEIS. The detention ponds will need to be located to avoid and minimize impacts to wetlands. Compensatory wetland mitigation will need to be provided for unavoidable wetland impacts for the ponds.

C5

¹Eggers, Steve D. and Donald M. Reed. 1997. Wetland plants and plant communities of Minnesota and Wisconsin. U.S. Army Corps of Engineers, St. Paul District.

Compensatory Wetland Mitigation

The District mitigation ratio for compensatory wetland mitigation conducted in-place, in-kind, and in-advance in the less than 80 percent counties would be 2:1. The proposed project would be conducted primarily in Nicollet County with a very small portion of the project conducted in Brown County, and the proposed compensatory wetland mitigation would be conducted in Nicollet County. Both counties are located in the less than 80 percent area of Minnesota.

The proposed project wetland impacts and the proposed locations for compensatory wetland mitigation in the Swan Lake watershed are all in the Minnesota River Basin

C6

Response

- C1 Coordination will be undertaken with the COE to determine to what extent new wetland delineations will be required prior to construction and the permit application.
- C2 During the detailed design phase of a project it is common that further measures are discovered that will allow for additional avoidance and minimization of impact to wetlands.
- C3 Permits will be applied for prior to any construction activities.
- C4 MnDOT will coordinate with the COE prior to permitting to ensure that the delineation methodologies are consistent with the practice extant at that time.



within hydrologic unit code (HUC) number 28. Therefore, the locations of the proposed mitigation would be considered in-place by the District.

C6

Section 3.9.4.2 of the DEIS states that it is anticipated that wetland mitigation required for the project would be accomplished in conjunction with the long-term management goals of the Swan Lake Wildlife Management Area (SLWMA). The SLWMA core mission is to provide, expand, and preserve habitat for waterfowl, however, the purpose of compensatory wetland mitigation under Section 404 of the CWA is to replace the functions and values of the wetlands lost as a result of the project. The wetland types proposed for compensatory wetland mitigation need to be the same wetland types impacted by the project in order to be considered in-kind, and the District strongly recommends that in-kind compensatory wetland mitigation be proposed. An incremental increase of 0.25 would be added to the mitigation ratio for compensatory wetland mitigation that is not in-kind.

C7

To be considered in-advance, the compensatory wetland mitigation work must be successfully conducted, and one full growing season (May – October) must have passed, before wetland impacts occur for the project. If wetland impacts for the project occur before the first full growing season ends, an incremental increase of 0.25 would be added to the mitigation ratio for those wetland impacts that occur before the end of the first full growing season.

Least Environmentally Damaging Practicable Alternative

At a corridor level of analysis, the alternative that appears to be the least environmentally damaging practicable alternative (LEDPA) is Alternative W2 for the West Study Section and Alternative E4 for the East Study Section. Alternative W2 (5.0 acres of direct wetland impact) has only about 25 percent of the direct wetland impacts of Alternative W1 (19.8 acres) and Alternative W3 (20.2 acres). Alternative E4 (4.8 acres of direct wetland impact) has only about 40 percent of the direct wetland impacts of Alternative E1 (12.0 acres); 35 percent of Alternative E2 (13.8 acres); and 27 percent of Alternative E3 (17.9 acres). In addition, the combination of Alternatives W2 and E4 also would impact the fewest acres of 100-year floodplain and would require the fewest residential relocations.

C8

The selected alternative must be the LEDPA and comply with the CWA Section 404 (b)(1) Guidelines to obtain CWA Section 404 authorization. Alternatives that are more damaging to aquatic resources are not permissible, unless the alternative(s) that are less damaging to aquatic resources are either not practicable, or they would have other significant adverse impacts to the natural environment. Documentation to support a determination of the LEDPA will need to be developed and included in the Final EIS.

- C5 Consistent with MnDOT practice, the stormwater treatment ponds will be placed upstream of receiving waters, including wetlands, to the extent possible.
- C6 Comment noted.
- C7 It is the intention of MnDOT to replace wetlands in-kind to the extent practicable. Corps of Engineers staff will be consulted during development of final wetland mitigation plans for this project.
- C8 MNDOT and FHWA believe that the Preferred Alternative is the least environmental damaging practicable alternative. See Sections 2.3.2 and 3.9 for a discussion of how this conclusion was reached.



Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, Minnesota • 55155-4025



March 17, 2008

Peter Harff
Project Manager
Mn/DOT District 7
501 South Victory Drive
Mankato, MN 56001

Re: U.S. Highway 14 Reconstruction Project, Nicollet and Brown Counties, Minnesota (S.P. 5200-03)

The Minnesota Department of Natural Resources (DNR) appreciates the opportunity to comment on the Draft Environmental Impact Statement (DEIS) for reconstruction of Highway 14 from Front Street in New Ulm to County Road 6 in North Mankato, Brown and Nicollet Counties, Minnesota.

In 2004, DNR submitted comments as part of the Corridor Study and Scoping EIS for the US 14 project between New Ulm and Mankato. The comments provided herein will incorporate previous statements related to this project as well as new considerations.

General Project Comments

After reviewing the road alignment options for U.S. 14 between New Ulm and Mankato, we noted numerous environmental concerns as well as some beneficial aspects of each option. Specific concerns addressed in this review include: the DEIS omitted discussion of several impacts; the DEIS did not fully address the opportunity to apply mitigation by restoring existing and new wildlife habitats and for maintaining better connectivity; and the need to consider public accessibility, water quality issues and other potential cumulative impacts.

The US 14 corridor between Mankato and New Ulm is a wildlife production area for game species such as pheasants, and a diverse array of songbirds and other grassland wildlife. Wildlife are known to use better quality native grass patches, including those established in road ditches. The DNR recommends that native grass mixes be used in revegetation of landscaped areas. Although establishing native prairie vegetation requires active management until fully established, its establishment far outweighs any perceived drawbacks. Native prairie plantings provide numerous benefits including: anchoring soils during snowmelt, rainstorms and windstorms, enabling soils to serve as sponges, capable of holding up to 50 tons of water per acre, eliminating weeds effectively, holding snow at greater depths than open fields, providing excellent wildlife habitat and requiring low cost for maintenance.

D1

Revegetating with native prairie species should be considered as an element of mitigation for some of the cumulative effects associated with the project. For more information about developing roadsides as habitat, please visit the "Roadside for Wildlife" website at <http://www.dnr.state.mn.us/roadsidesforwildlife/>

All of the proposed alignments alternatives for US 14 between New Ulm and Mankato will have wetland impacts. Wetland avoidance and minimization should weight heavily in the final alignment selection. However, DNR understands that some impacts are unavoidable. Mitigation associated with road projects often involves the creation of small isolated basin adjacent to or within the acquired road right-of-way. These artificial habitats provide limited habitat and consequently have low value for wildlife.

To achieve effective wetland mitigation that results in a no net loss of wetland form and function, DNR recommends restoring previously drained or other wise degraded wetlands within the Swan Lake Project Area. The DNR would be supportive of and could recommend numerous areas of drained wetlands for mitigative restoration within the project area. DNR would also provide support to Mn/DOT in efforts to identify higher

D2

Response

D1 MnDOT typically uses native seed mixes in ditches, water treatment pond areas, and wetland restoration. Except in areas where conditions require other treatments, if any, MnDOT will use native seed mixes on this project.

D2 While committed to replacing wetlands in-kind to the extent practicable, the presence of the Swan Lake WMA in such close proximity to the project presents a unique opportunity to enhance this public wildlife and wetland resource. MnDOT is committed to partnering with the DNR on wetland replacement were it fulfills the aims of both the Clean Water Act and the mission of the WMA.



value mitigation locations in the Swan Lake Project Area. Restoration of these wetlands would help to meet the project’s mitigation requirements and would be compatible with management objective for the Swan Lake WMA.

D2

Preferred Alignment Options

Of the three west alignments options, DNR supports W1 - Existing US 14 Minnesota River Alignment as the preferred option. This alignment significantly reduces new environmental impacts to surface water resources in the western project area. The other alignments would have a larger impact on water resources, including various intermittent and perennial streams, several adjacent wetlands and the Minnesota River floodplain. DNR recognizes these aquatic resources as having various levels of species diversity and habitat complexity and considers all to have merit and are worthy of being evaluated on an individual basis for potential impacts.

D3

The W1 alignment favorably uses the existing US 14 corridor, thus limiting additional cumulative impacts just to the expansion zones. This tract will afford protection to the sensitive Minnesota River bluff land and water resources, thus reducing opportunities for future development and potential erosion impacts. This protection is not afforded by the other two alignment options. Expanding US 14 adjacent to the Minnesota River will require some flood plain fill and possible armoring along the Minnesota River if the river channel should shift in the future. However, weighing the environmental impacts associated with all of the alignment options, the W1 alignment reduces many of the direct and cumulative environmental impacts related to this project.

Of the four eastern US 14 alignment options, DNR prefers E4 - Far South Bypass Alignment. This alignment moves US 14 south of the Swan Lake Wildlife Management Area (WMA) and away from the existing US 14 road corridor. Swan Lake WMA represents a significant natural resource feature and is a management priority of the in DNR’s Southern Region. Moving US 14 to the E4 alignment will reduce the loss of or impact to habitat (quality and quantity), biodiversity, connectivity, wetlands, public waters and incidental wildlife mortality. The Swan Lake WMA receives extensive public use for a variety of outdoor recreation activities. The E4 alignment would increase the distance between US 14 and would consequently improve its capability to provide outdoor opportunities to the public. Undoubtedly, appreciation, enjoyment, satisfaction, and safety of the stakeholders using the WMA would improve.

D4

Item 3.18. Indirect and Cumulative Impacts

Only direct cumulative impacts are addressed in the DEIS for the US 14 project. However, additional indirect cumulative impacts that have not been identified are associated to this project. The indirect effects of the project need to be discussed in more detail. Some additional factors to consider as potential cumulative effects should include:

A. Habitat and Biodiversity

An increase in road density is known to increase habitat conversion and incidental wildlife mortality, and reduce the quality of habitat and its connectivity over time. These types of cumulative impacts are subtle. It may take several generations of a species before a population impact is detectable. Loss of biodiversity in wetlands and adjoining lands is also a documented cumulative effect to road development and increases in road density. The loss of diversity may take 30-40 years before being detectable. This would suggest that there often is a considerable time lag before the full cumulative effect from a road project is realized. As a result, these impacts have corresponding indirect ecological effects on other dependent species and related communities.

D5

Response

- D3 MnDOT and FHWA have identified Alternative W1 as the Preferred Alternative in the western project segment. As construction approaches and a public waters permit is required, MnDOT will coordinate with the DNR to minimize impacts to specific surface waters.
- D4 MnDOT and FHWA have identified Alternative E1 as the Preferred Alternative in the East Study Area. We believe the minor impacts to the fringes of the Swan Lake Wildlife Management Area are less damaging to the environment than introducing a third parallel highway within a mile and a quarter. There will be fewer barriers to wildlife migration, less impervious surface, and less impact to farmland. MnDOT is committed to working with the DNR to mitigate for WMA land and functionality lost.
- D5 The Preferred Alternative is located primarily adjacent to the in-place roadway which will limit road density. Alternative E1 also reduces sprawl by keeping the intersection that provides access close to the city. The discussion from Sections 3.18.2 and 3.18.1.1 in the DEIS have been expanded in Section 3.18 of the Final EIS.



B. Water Flow and Transport

Roads intercept the natural surface flow of water across watersheds. This alteration in drainage pattern redistributes runoff along roadside ditches to other drainages. This cumulative effect contributes to increased stream flow volumes, stream bank erosion, flooding, transport of contaminants and other water quality impairments.

D6

C. Adjoining Lands

Road systems and especially high traffic volume commonly affect adjoining lands by altering or restricting wildlife usage of adjoining lands. Conversely, this concentrates wildlife crossing in specific locations along the roadway. The concentrated wildlife crossings contribute to higher animal-vehicle collisions and subsequent wildlife mortality. For this reason, roads understandably have cumulative effects on adjoining lands such as altering surface water drainage, wildlife movements, wildlife survival, ecological and biological diversity, land use and future development.

D7

Thank you for the opportunity to provide comments on this DEIS and thank you for your consideration. Please feel free to contact me with any questions or comments.

Sincerely,



Ronald Wieland, Senior Planner
Environmental Review and Planning Unit
Division of Ecological Resources
(651) 259-5157

Response

- D6 Because the Preferred Alternative primarily utilizes much of the existing alignment, impacts to natural drainage patterns will be limited. Modern highway design includes a host of water control measures, including ponds, to reduce contaminant loading and reduce velocities. The effect of construction should, therefore, be to directly improve the present condition. Indirect impacts would be limited to those associated with induced development. However, here again, modern stormwater handling standards will largely mitigate the effects.
- D7 The direct, indirect, and cumulative impacts to the resources noted are discussed in the appropriate sections of the Final EIS.

March 4, 2008

Peter Harff
 Project Manager
 Mn/DOT District 7
 501 South Victory Drive
 Mankato, MN 56001

RE: US Highway 14 DEIS New Ulm to North Mankato

Dear Mr. Harff:

The Minnesota Department of Agriculture (MDA) would like to make some general comments on the US Highway 14 DEIS from New Ulm to North Mankato. Section 3.4.2 of the DEIS generally describes the agricultural impacts of the proposed highway alignment. However, in our recent experience with farmers and agricultural business owners along the US Highway 14 EIS from Owatonna to Dodge Center, we have learned that there are additional impacts that can severely affect farming operations. The MDA would also like to expand on some of the identified impacts.

The MDA suggests that the following impacts should be considered for all highway projects in agricultural areas:

Restricted Road Access

It appears that the proposed highway realignment will restrict farm to market road access and remove some at-grade access making it very difficult for field and market access. The connectivity and continuity between the north and south roads to the proposed US Highway 14 is important to maintain.

E1

Farmers are highly dependent upon quick and adequate accessibility to US Highway 14. Restricted access will increase their time, distance and transportation costs, which will directly impact their farming operations. Also, restricted access will displace heavy vehicles and equipment onto roads with weight restrictions.

- The owners of the impacted farms should be consulted to discuss alternatives to lessen the impact. Possible alternatives should address but not be limited to:
 - Owner's suggestions;
 - right of way acquisition to accommodate a frontage road;
 - a change in access to the farmstead; and
 - potential visual/audible impacts to the farmstead.

E2

Severed, Triangulated or Isolated Farmland

The impact of severed, triangulated or isolated farmland may be farming remnants that are difficult from a practical standpoint. There may be problems of getting to the field and once there, problems of maneuvering farm equipment on the field. Also, smaller fields that are oddly shaped may be less valuable than fields of typical dimension and size. Acquisition for loss of productive land should be addressed.

E3

Response

- E1 In selecting the Preferred Alternative one of the significant factors was impacts to farmland and farming operations. Unfortunately, at a few locations access to farms or fields will be more circuitous in order to improve safety on the highway.
- E2 Such discussions have occurred and will continue with the affected landowners prior to right of way acquisition.
- E3 The DEIS specifically identifies impacts of this nature. MnDOT pays damages as a portion of the land value for these impacts as determined by professional appraisers.

Relocating Livestock Operations

The DEIS does not indicate if any livestock operations will need to be relocated. Relocating a livestock operation would result in several consequential impacts:

- The controversy surrounding the issue of siting a livestock operation, particularly a hog operation, can make it very difficult for the owner to relocate his/her facility. There are no guarantees that a local governing unit would permit the owner to rebuild, therefore, threatening his/her livelihood. Compensation for any loss of livelihood would have to be addressed.
- Also, livestock operations are often located adjacent to cropland, thereby allowing the owner to spread the hog manure on fields without incurring costs for transporting manure. If the operation is relocated, transportation costs will then be incurred to haul the manure. Costs could be significant depending on where the operation is relocated.

E4

Flooded Fields

Storm water runoff from the new highway alignment can flood crops. Mitigation should include reparation of severed tile lines and loss of yield due to flooding.

E5

In each of the above cases where a farmstead is directly impacted, a memorandum of agreement (MOA), between owner and Mn/DOT should be drafted. The MOA should include specific measures to minimize impacts to the property, and should be included in the final EIS.

E6

Thank you for the opportunity to prepare comments on the DEIS. Please feel free to contact me at (651) 201-6369 or becky.balk@state.mn.us if you have any questions regarding this matter.

Sincerely,



Becky Balk, Agricultural Land Use Specialist
Agricultural Development and Financial Assistance Division

Response

- E4 The DEIS identifies relocation of the Hormel Hog buying station west of Nicollet (DEIS Section 3.2.2.1). An additional hog raising facility that was constructed since the project began may also be impacted. The right of way would not affect the barns, but access and the space available for truck turning will be somewhat limited. If such movements cannot be accommodated, this may result in acquisition of the property.
- E5 MnDOT captures runoff from the highway via ditches and normally only releases water from the right of way after it passes through detention ponds so damage from flooding due to the highway is unlikely. MnDOT plans for tile reconnection to the extent that landowners provide tile maps at the time of detail design. In any case, tiles crossed during construction will be perpetuated (typically consolidated to a small number of larger diameter crossings).
- E6 In each case where MnDOT directly affects a farmstead, a specification of the property taking and other impacts is performed during the right of way phase of the project, and appraisals developed. The right of way process is very systematic, involving several contacts between MnDOT and individual property owners. As the Right of Way process follows the project environmental process by several months or years, it is not possible to include such documentation in an FEIS.



RESOLUTION

WHEREAS, the draft Environmental Impact Statement and Section 4(f) Evaluation for the 22.5 mile segment of US Highway 14 from Front Street in the City of New Ulm to Nicollet County 6, is available for review and comment.

NOW, THEREFORE BE IT RESOLVED, by the Nicollet County Board of Commissioners of Nicollet County, Minnesota, that its comments are as follows:

- 1. Nicollet County supports "W1", the existing US 14/Minnesota River Alignment with the expressed concern that the selected interchange concept allows for Nicollet County 21 to retain its full access through the intersection of US 14 and MN 15, while also allowing full access on and off highways 14 and 15 | F1
- 2. What appears to be missing within the Draft EIS is any discussion regarding the re-routing of MN 15 to cross the Minnesota River on Nicollet County 37. This is the most-used and logical short-cut for MN 15 and Nicollet County requests that the Final EIS address this re-routing. | F2
- 3. Nicollet County supports "W3", the River/Bluff Combination Alignment. | F3
- 4. Nicollet County requests re-routing of the existing US 14 roadway between the City of Courtland and County 37, to create full access to and from County 37 at a new intersection location that is just south of the County 37 interchange. | F4
- 5. Nicollet County supports the US 14 interchange location at the City of Courtland, as well as, the extension to County 24 and the re-routing of County 12. | F5
- 6. Nicollet County supports including an eastbound "right on" for existing US 14 accessing new US 14 easterly of the City of Courtland. | F6
- 7. Nicollet County supports "E1", the South Bypass – Through Swan Lake WMA Alignment. | F7
- 8. Nicollet County supports the provision of a "fly-over" bridge on new US 14 at 471st Avenue. | F8
- 9. Nicollet County supports including a westbound "right on" for existing US 14 accessing new US 14 westerly of the City of Nicollet. | F9
- 10. Nicollet County supports the US 14 interchange located on County 23 versus the optional interchange for a re-routed MN 99 at existing County 72 (42). | F10

Response

- F1 Although design of the interchange is not complete, it is MnDOT's intent to provide for the access specified if it can be done safely and cost effectively.
- F2 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.
- F3 The Federal Highway Administration and the Minnesota Department of Transportation have identified Alternative W1 as the Preferred Alternative. The Preferred Alternative provides the best overall solution of meeting the purpose and need for the project, while reducing impacts.
- F4 With W1 as the Preferred Alternative this comment is no longer applicable.



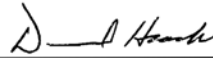
11. Nicollet County supports including a westbound "right off" for new US 14 accessing existing US 14 easterly of the City of Nicollet.

F11

12. Nicollet County requests commentary recognition in the Final EIS regarding the necessary construction of four-lane SP 5203-85, which is the existing two-lane link between existing four-lane US 14 and the subject Draft EIS segment at County 6.

F12

Date: March 11, 2008



David Haack, Chair
Nicollet County Board of Commissioners

ATTEST:



Robert Pogoradsky, County Administrator
Clerk to the County Board

Response

- F5 The Preferred Alternative provides these connections.
- F6 The Preferred Alternative provides for this movement.
- F7 The Preferred Alternative is Alternative E1.
- F8 Since the circulation of the DEIS, further analysis has been performed at this location. Because of the extremely limited traffic and expense, an overpass will not be constructed. To reduce the circuitry of travel, a right in right out will be constructed on the south approach.
- F9 The Preferred Alternative provides for this movement
- F10 The Preferred Alternative includes the intersection and possible interchange at County Road 23. A re-routed MN 99 is not included as part of the Preferred Alternative.
- F11 This movement is not included as part of the Preferred Alternative because of the proximity to the interchange ramps. US 14 westbound traffic destined for Nicollet will be provided access via the intersection at CR 23.
- F12 Noted. The section of roadway cited is a necessary step in the full development of the highway, but the environmental analysis occurred previously in an Environmental Assessment.

Date: March 12, 2008

To: Mr. Peter Harff
Project Manager
Hwy. 14; New Ulm to CSAH 6

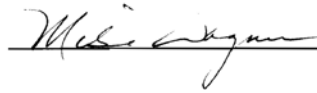
From: Mike Wagner

Re: Volume 2, Issue 1 of the TH 15 Corridor Coalition Chronicle
Draft EIS Comments

Enclosed is an original print of the above document. Please accept this publication as an "official" comment regarding the Draft EIS for the subject (New Ulm to CSAH 6) segment of MN Hwy. 14.

Page 1 and Page 4 express the TH 15 Coalition interest in seeing TH 15 designated on new location, which is the Minnesota River crossing at Nicollet CSAH 37. For the Final EIS, please address this Coalition recommendation.

F13



Response

F13 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.

RESOLUTION #1-23-08A
RESOLUTION SUPPORTING DRAFT ENVIRONMENTAL IMPACT STATEMENT ON
HWY 14

WHEREAS, a US HWY 14 Draft Environmental Impact Statement has been available to the public since December 31, 2007 and,

WHEREAS, the City of Nicollet has four options as to where a proposed US HWY 14 bi-pass of Nicollet will align and,

WHEREAS, future commercial development could certainly be affected by some of the alignment options and,

WHEREAS, one option aligns that proposed bi-pass nearly one mile from the current HWY 14 alignment thus stifling the line of sight to the community and,

WHEREAS, three of the options place the new four-lane alignment as crossing an existing sewer force-main which proceeds to the City of Nicollet waste water treatment facility and,

WHEREAS, one of the options shows County Road 73/Birch street as a bi-pass for Trunk HWY 99 and TH 111 to the proposed four-lane HWY 14 and,

WHEREAS, The City of Nicollet has had representation on the US HWY 14 Project Advisory Committee,

NOW THEREFORE BE IT RESOLVED by the City Council of The City of Nicollet, Nicollet County, Minnesota, as follows:

- | | |
|---|----|
| 1. The Nicollet City Council supports the Draft Environmental Impact Statement with diverting US HWY 14 south, to one of the 3 proposed routes nearest the City of Nicollet. | G1 |
| 2. The Nicollet City Council supports the placement of some barrier (trees, fence, or earth mound) to be placed between the bi-pass and the City of Nicollet waste water treatment facility. | G2 |
| 3. The Nicollet City Council expresses its concerns over any alignment of the new US HWY 14 crossing the City's sewer force main and consequently there is a desire to ascertain that the sewer force main is structurally sound before the placement of a four-lane highway crossing it. | G3 |
| 4. That fewer turns for truck traffic are desirable so the option to use County Road 73/Birch Street as a bi-pass should not be considered and the continued use of Trunk HWY 111 and also County Road 23 as the main truck route to a new US HWY 14 interchange should be seriously considered | G4 |

Dated this the 23rd day of January 2008.

ATTEST:


Mike Mans
Mayor


Michael Boulton
City Administrator

Response

- G1 The Preferred Alternative at Nicollet is Alternative E1, located closest to the City.
- G2 As design moves forward at the City of Nicollet, MnDOT will coordinate further with the City regarding landscaping partnership possibilities, including at the wastewater treatment facility, in accordance with the MnDOT cost participation policy.
- G3 The presence of the force main is noted. As design moves forward at the City of Nicollet, MnDOT will coordinate further with the City regarding this issue.
- G4 The option to use CR 72 as a MN 99 bypass has been eliminated from consideration.



**RESOLUTION SUPPORTING DRAFT ENVIRONMENTAL IMPACT STATEMENT ON HWY 14
RESOLUTION #101**

WHEREAS, the US HWY 14 Draft Environmental Impact Statement has been available to the public since December 31, 2007,

WHEREAS, the City of Courtland has only one option to where the US HWY 14 bi-pass will go,

WHEREAS, there could be an availability for the current US HWY 14 to be connected from an East-West exit on the west side of Courtland and an East-West exit on the east side of Courtland for a truck traffic exit from New Ulm,

WHEREAS, the City of Courtland has adopted, in a Comprehensive Plan, future sites for US HWY 14 bi-pass land which includes limiting development on it,

WHEREAS, Courtland has had representation on the US HWY 14 project advisory committee,

NOW THEREFORE BE IT RESOLVED by the City Council of Courtland, Nicollet County, Minnesota as follows:

1. The Courtland City Council supports the Draft Environmental Impact Statement with diverting US HWY 14 North of the current city to the top of the hill
2. The Courtland City Council supports an East-West Exit off US HWY 14 coming into Courtland and an East-West Exit off of existing US HWY 14 to the proposed US HWY 14 for the purposes of easing truck traffic turning in and out of a possible bottlenecking on the one entrance/exit currently proposed.


H1


H2

The adoption of the foregoing resolution was duly motioned by Councilmember-Schwartz and seconded by Councilmember-Nielson, and after full discussion thereof and upon a vote being taken thereon, the following council members voted in favor thereof:

And the following voted against the same:

Whereupon said resolution was declared duly passed and adopted. Dated this the 3rd day of January 2008.


Bob Schabert
Mayor

ATTEST:

Michael Boulton
City Administrator

Response

H1 The Preferred Alternative at Courtland is a north bypass, which will be located on the bluff top.

H2 The Preferred Alternative at Courtland accommodates the requested connection on the east of Courtland provided local transportation agencies assume maintenance of the connection. MnDOT is likewise supportive of an eastbound right off west of Courtland if it can be built within standards that require sufficient separation between the at-grade access at 547th Lane and the exit to Courtland.



Brown County Highway Department
1901 North Jefferson Street
New Ulm, MN 56073
Phone (507) 233-5700 Fax (507) 354-6857

January 10, 2008

Peter Harff
Minnesota Department of Transportation
501 South Victory Drive
Mankato, MN 56001

RE: TH 14 DEIS Comments

Dear Mr. Harff:

The Brown County Board of Commissioners reviewed the Draft Environmental Impact Statement/Draft Section 4(f) Evaluation for the segment of Truck Highway 14 between New Ulm and North Mankato at their regular Board meeting on January 8, 2008. The proposed alignment alternatives as well as their potential environmental impacts were discussed at length. The digital maps you provided were plotted on a large scale plotter and aided in the discussion.

The Board directed me to respond that their preferred alignment on the west end is option W3, River/Bluff combination. In addition, the Board recommends that Nicollet County State Aid Highway 37 become Trunk Highway 15 in the process. | I1
| I2

Thank you for this opportunity to comment on this important project. Please contact me with any comments or questions.

Sincerely,

Wayne Stevens
Wayne Stevens
Brown County Engineer

Response

- I1 FHWA and MnDOT have identified Alternative W1 as the Preferred Alternative. The Preferred Alternative provides the best overall solution of meeting the purpose and need for the project, while reducing impacts as detailed in FEIS Section 2.3.2.
- I2 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.



Date: 3/17/2008 10:50:07 AM
Subject: T.H. 14 E.I.S. Comments

Good morning Peter,

I would like to pass on to you Martin County's comments on the T.H. 14 E.I.S. on behalf of myself and my county commissioners. Our main concern isn't as much with the work being done on T.H. 14, but rather the impact it may have on T.H. 15 in the New Ulm area. We consider T.H. 15 to be a major corridor for traffic heading north out of Fairmont and therefore feel any changes in that area will impact our residents. We feel most of the through traffic that is familiar with that area already uses the CSAH 37 bypass around New Ulm when traveling T.H. 15 so making that the actual route of T.H. 15 and separating out the local New Ulm traffic from the through traffic using T.H. 15 as a corridor makes the most sense. Therefore, we support the T.H. 14 options that include this realignment of T.H. 15 and corresponding interchanges with T.H. 14 as the best alternatives.

J1

Thank you, Kevin.

Kevin Peyman, P.E.
Martin County Engineer
1200 Marcus St.
Fairmont, MN 56031
(507)235-3347 ext. 4222
_____ Fax (507)235-3347 _____

Response

J1 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.



Date: 3/17/2008 4:59:40 PM
Subject: Trunk Highway 14 EIS

Dear Mr. Harff:

I would like to comment of the above-mentioned EIS document.

The "TH 14" project will effect the public using TH 15 in the traveling north and south bound. It has come to my attention that most people from this area use the Nicollet CSAH 37 as a bypass for the town of New Ulm.

My opinion is for Mn/DOT to officially map TH 15 along the Nicollet CSAH 37 corridor. This scenario is similar to the Brown County option. This would separated the through traffic on the TH 15 from the New Ulm's local traffic. This would also approve the overall flow of TH 15. This would lead to the general public to use TH 15 as a alternate for 35W as a north and south bound corridor.

K1

Ronald Mortensen

Ronald Mortensen, P.E.
County Engineer
Meeker County Highway Department
422 S. Johnson Drive
Litchfield, MN 55355

Response

K1 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.



4.3.3 Non-Governmental Agencies



February 13, 2008

Peter Harff
Project Manager, MNDOT
501 South Victory Drive
Mankato, MN 56001-5302

1851 NORTH MINNESOTA AVE
ST. PETER, MN. 56082

Dear Peter:

Thank you for sending me the US Hwy 14 Reconstruction Draft Environmental Impact Statement. I also enjoyed attending the informational session in Nicollet. Hwy 14 is vital to our region, but any expansion will obviously have a big impact on the landscape.

I have reviewed the 27 total historic resources potentially affected by any reconstruction. It is my belief that a route can be chosen to mitigate adverse effects on the majority of resources. I am most concerned that preservation of the Altman Archaeological Site and New Ulm Conglomerate site be given high priority. If avoiding the sites is impossible, we recommend extensive archaeological investigation and documentation.

A1

I would not recommend Alternatives W2 or W3. I feel any of the E alternatives would be acceptable. I am not so concerned with preserving the former route of the WSP Railroad. Remnants are hard to distinguish from the rest of the landscape, and most people are unaware that they are there. A much better section of the former railroad lies along State Hwy 99 east of Nicollet. I am in favor of preserving that section over any along US Hwy 14. The WSP Railroad was an important part of our history. However, much of its route is now obliterated and indistinguishable. I feel like preserving much of what is left would have little interpretive value.

A2

A3

Please don't hesitate to contact me for any reason. I would love to hear more as this project moves along.

Sincerely,

Ben Leonard
Director

Response

- A1 The New Ulm Conglomerate site will be avoided by modifications in the design, but the Altman Site is unavoidable. See the Memorandum of Agreement between FHWA, SHPO, and MnDOT in Appendix B for details on mitigation.
- A2 In the west project segment, Alternative W1 has been selected as the Preferred Alternative.
- A3 The remaining stone box culverts were deemed contributing elements such that the Preferred Alternative was determined to cause an Adverse Effect on the WSP Railroad.



March 12, 2008

P.O. Box 321
Nicollet, Mn. 56074

Mr. Peter Harff, P.E.
MN/DOT District 7
501 South Victory Drive
Mankato, MN 56001

RE: Comments on US Highway 14 Draft EIS

Dear Mr. Harff,

The Nicollet Area Chamber of Commerce Board of Directors and its membership of nearly 70 Nicollet Area businesses wishes to relate its preferences for the proposed US Highway 14 project.

After the public hearing held in Nicollet on February 7, 2008, the Chamber Board of Directors sought input from its membership and the consensus of opinion is that the Chamber fully supports the City of Nicollet Resolution #1-23-08A, specifically supporting the Draft Environmental Impact Statement with diverting US Highway 14 south to one of the proposed routes nearest the City of Nicollet—E-1, E-2 or E-3). Also that fewer turns for truck traffic are desirable so the option to use County Road 73/Birch Street as a bi-pass should not be considered and the continued use of Trunk HWY 111 and also County Road 23 as the main truck route to a new US HWY 14 interchange should be seriously considered.

B1

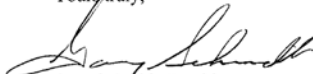
B2

It is also the Chamber's desire that provision be made to allow for roadside signage and billboard to enable Nicollet businesses and institutions to inform travelers of their existence.

B3

Thanks for your consideration. Please call my office at 232-3438 if you have additional questions or desire more information.

Yours truly,


Gary Schmidt, President
Nicollet Area Chamber of Commerce

Response

- B1 The Preferred Alternative at Nicollet is Alternative E1, located closest to the City.
- B2 The option to use CR 72 as a MN 99 bypass has been eliminated from consideration.
- B3 Roadside signage and billboards will be allowed to the extent that they conform to the requirements of the Minnesota Outdoor Advertising Control Act and other federal, state, and local laws and ordinances. No special exceptions to these laws will be granted.





TRUNK HIGHWAY COALITION



March 17, 2008

Peter Harff
Minnesota Department of Transportation
501 South Victory Drive
Mankato, MN 56001

RE: TH 14 DEIS Comments

Dear Mr. Harff:

The Trunk Highway 15 Corridor Coalition is a public / private partnership of cities, counties and businesses and property owners along the TH 15 Corridor between St. Cloud and Fairmont. Our mission is to organize and effectively advocate for accelerated safety and capacity improvements along this important highway.

The Coalition has reviewed the Draft Environmental Impact Statement/Draft Section 4(f) Evaluation for the segment of Truck Highway 14 between New Ulm and North Mankato at an Executive Committee meeting on Thursday January 17, and the full membership was encouraged to offer comments in our regular newsletter. The primary issue of interest to the TH 15 Coalition, of course, is the proposed realignment of TH 15 around New Ulm, including a re-designation of the current TH 14 northeast of downtown. (Currently, TH 15 runs right through the heart of downtown New Ulm on North Broadway Street.)

The consensus view of the TH 15 Corridor Coalition members who provided comments was that most people from the New Ulm area who regularly travel this stretch of TH 15 already use the downtown "bypass" when they are traveling through New Ulm, so re-designating the TH 14 and County Highway 37 as TH 15 makes sense from a functionality standpoint. The TH 15 Corridor Coalition also supports the re-designation because removing the main flow of traffic from the current downtown alignment will improve safety and mobility along the corridor.

Thank you for this opportunity to comment on this important project. Please contact me or the Coalition (contact information provided below) with any comments or questions.

Sheldon Neis
TH 15 Corridor Coalition Chairman and McLeod County Commissioner

C1

TRUNK HIGHWAY 15 COALITION
C/o Mid-Minnesota Development Commission
333 West Sixth Street • Willmar, MN 56201 • Phone: (320) 235-8504 • Fax: (320) 235-4329

Response

C1 The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.



4.3.4 Private Citizen & Business Comments and Responses

One hundred seventy-three written comments were received from private citizens and businesses through mail, email, or handed to project staff during the public comment period. In some cases there were multiple comments from the same individual and in others the comments bore the names of multiple people.

Most of these comments indicated a preference for or against one of the alternatives or expressed concerns over potential impacts that were already addressed in the DEIS. A few of the comments raised issues that were not discussed or just briefly mentioned in the DEIS. One comment challenged the description of the effects to the environment that was given in the DEIS.

This section summarizes the majority of comments provided and responds to them. Only those written comments that substantially add to the information in the DEIS are reproduced below. All of the comments are kept on record at the Mankato office of MnDOT.

4.3.4.1 Comment Summaries and Responses

Route Preference

Most comments indicated a route preference consistent with the issues of concern to the individuals. None of the alternatives was universally favored or disliked except the option to reroute MN 99 east of Nicollet which received only negative comments and has been eliminated from consideration.

In selecting the Preferred Alternative, MnDOT considered the underlying reasons the individual presented in advocating for a particular route. Therefore, wherever possible, modifications were made to the Preferred Alternative that would mitigate or eliminate the reason why people preferred other options.

The final decision on a Preferred Alternative was made by MnDOT and the Federal Highway Administration. The input of citizens and agencies provided valuable information and was given weighty consideration; however, the Preferred Alternative was selected because it most satisfies the purpose and need for the project while minimizing the whole range of environmental impacts.

Minnesota Valley Lutheran High School Comments

Staff, Parents, students, and others participated in a well organized public participation effort on the issue of how an improved US 14 on the W1 alignment could impact the school. MnDOT/FHWA received 145 letters from people specifically interested in the highway and the high school.

MVL Comment 1 - Safety of Young Drivers

Many letters pointed out the youthfulness of many of the drivers who would be entering or exiting US 14 at the main access point if Alternative W1 were selected. They were concerned



over the safety of the proposed intersection. Many suggested that Alternative W2 would avoid the safety concerns at this intersection.

Response to MVL Comment 1

Since the circulation of the DEIS and the receipt of the comments on the access issue, MnDOT undertook a re-analysis of the intersection in question. Further coordination with the School has taken place as well. This has resulted in redesign of the intersection of US 14 and 561st Avenue. The current preliminary design (shown in Exhibit F-2-4) separates the south leg of 561st Avenue out to an intersection farther east. Access to 561st Avenue north is accomplished with two separate intersections in order to reduce the conflicts for each movement down to the smallest number possible. The proposed Preferred Alternative design at this location creates an intersection that enhances safety for US 14 travelers, as well as those entering or exiting US 14 at 561st. The design is not typical of intersections in Minnesota and may cause confusion in drivers not familiar with it. MnDOT continues to analyze the intersection to identify the best solution for safety concerns.

MVL Comment 2 - Impact of Right of Way Acquisition on MVL's Existing Athletic Fields and Future Growth Plans

Many letters expressed concern over right of way acquisition and how that would impact the school grounds. Most frequently expressed was a concern over impact to the athletic fields which currently lie adjacent to existing US 14.

Response to MVL Comment 2

MnDOT will pay for the value of the land and improvements consistent with federal right of way laws. This will provide the resources necessary to reestablish the softball fields at another location, most likely on site. MnDOT will continue to coordinate with MVL and work to ensure that the services offered to their students are not compromised as a result of the US 14 project.

MVL Comment 3 - Reduce Speeds past MVL

A few individuals suggested reduced speeds in the vicinity of MVL if the highway continues on the existing alignment.

Response to MVL Comment 3

The speed in the vicinity of MVL will be posted at 65 mph (or the standard for four-lane expressways when the highway is constructed) because posting a lower speed would have very little impact on actual speeds in a rural location where there are no visual cues to suggest lower speeds. The effect of this would be to have more variation in vehicle speeds which is less safe than higher, consistent speeds.

Farmland Comments

Nine written comments raised concerns over the effect of the project on farmland and farming operations. The following topics were raised:

1. Quantity of farmland used
2. Farm severances
3. Field drainage
4. Access to fields.



Response to Farmland Impact Comment

The DEIS covered this topic in detail in Section 3.4. The Preferred Alternative utilizes the alignments that use the least farmland.

Response to Farm Severance Comment

Farm severances were also covered in Section 3.4 of the DEIS. By following the existing route as much as possible, the Preferred Alternative limits the number of farms severed.

Response to Field Drainage Comment

MnDOT's practice is to reestablish tile drainage when tile lines are crossed by the project. Information has been added to Section 3.4 of the FEIS that describes the process for dealing with severed tiles.

Response to Field Access Comment

Field access was covered in general in the DEIS in Section 3.4, but very few details were given. In general, field access will not be allowed directly off the highway. Wherever practicable, access will be rerouted to lower volume county and township roads in order to improve safety. In some cases lands may be purchased (in fee or by permanent easement) to provide access across one property to another. Field accesses constructed by MnDOT would normally be twenty feet wide, built half a foot up from the existing ground and surfaced with gravel. Changes to specific accesses will be identified closer to the time of construction and negotiated during right of way acquisition.

Habitat Comments

Several comments mentioned wildlife habitat, especially those advocating staying out of the bluff-top area that would be used by Alternative W2. One comment specifically raised a concern that landowners who have established restored prairie sections would no longer be able to use controlled burns as a management technique if the highway is built through or near those areas because the smoke would affect visibility.

Response to Controlled Burn for Prairie Management Comment

Controlled burning as a prairie management technique requires a permit from the DNR. Burning near highways is allowable, but more planning and law enforcement support for traffic control is required because of the hazard of reduced visibility. Alternative W2 was not selected as the Preferred Alternative, thereby avoiding this concern.

Visual Quality Comments

Three comments addressed visual quality, two of them calling out the impact Alternative W2 would have on an existing high quality view from residences on the bluff top between MN 15 and 446th Street. One comment challenged the assertion in Section 3.3.2.4 of the DEIS regarding the visual experience if Alternative W2 was constructed, stating that "...those travelling along US 14 could potentially experience panoramic views of the river valley and New Ulm currently enjoyed by the residents of this area because the corridor would be located on a bluff approximately 150 feet above the existing highway." They point out that the land slopes down



to the northeast (toward Heyman's Creek) such that the highway would be lower than the top of the bluff.

Response to Visual Quality Impact Comment

These impacts were identified in DEIS Section 3.3.2.4 and are also contained in this FEIS in Section 3.3.2.2.

Response to Panoramic View Comment

The commenter makes a good point. In addition to being lower than the bluff top, trees along the bluff line would screen views of the Minnesota River valley and New Ulm. The only locations that would afford panoramic views would be east of CR 37, where the highway would follow the ridge between the Minnesota River valley and Heyman's Creek, and at the point where it descends into the river valley at existing MN 15 because the trees would be removed for highway construction.

Commercial and Industrial Impact Comments

A few comments were made that have to do with impacts to commercial and industrial operations. These included:

1. Heavy Trucks – the need to design for the safe entering and exiting of fully loaded heavy vehicles.
2. Advertising Signs – the desire to allow billboards along the community bypasses to alert travelers to the businesses in Nicollet and Courtland.
3. Limiting Industrial Growth in Nicollet – suggesting the need to use Alternative E4 to allow space for industrial growth.
4. Sewage Lines – identifying potential impacts to the wastewater lines that would be crossed by the highway under Alternatives E1, E2, and E3.
5. New Ulm Quartzite Quarry – various issues that are identified and addressed in the next section.

Response to Heavy Trucks Comment

With existing and forecast traffic volumes, a four lane road allows slow moving vehicles to enter the highway safely. Approaching traffic will have the passing lane to go around the vehicles. Left and right turn lanes will be provided at all public road accesses. The MnDOT common design for turn lanes on rural expressways has recently gone from 300 feet to greater than 500 feet plus the taper. Private accesses will be removed to the extent possible, but any that remain will have a full 10 foot shoulder for right turns, and, if a median cross over is provided, at least a 300 foot left turn lane. These improvements will provide a very safe environment for large vehicles.

Response to Advertising Signs Comment

Roadside signage and billboards will be allowed to the extent that they conform to the requirements of the Minnesota Outdoor Advertising Control Act and other federal, state, and local laws and ordinances. No special exceptions to these laws will be granted.

Response to Limiting Industrial Growth in Nicollet Comment



This topic was addressed in Section 3.3.2.3 of the DEIS. The Preferred Alternative utilizes Alternative E1. This is consistent with the position of the City of Nicollet, preferring to have the access nearer to the city.

Response to Sewage Lines Comment

MnDOT will coordinate with the City of Nicollet to provide for any necessary adjustment (e.g. lowering and casing) to the wastewater lines during construction of the project.

Connections with Local Roads Comments

Impacts to the road system were brought up in four comments. The specific issues were:

1. Driveway Access to the Highway
2. CR 21 East Access
3. 471st Lane Access
4. Sign CR 37 as MN 15

Response to Driveway Access Comment

Driveway accesses to US 14 will be rerouted to local roads wherever practicable. This improves safety for the resident and traveling public as drivers have more warning of roadway intersections and are more aware of the potential of entering vehicles. Also, it allows for all exiting vehicles to be provided with left and right turn lanes. Where the cost or environmental impacts of rerouting access to a local road are excessive, a right in right out (no left turns in or out) will be provided unless the distance to a median cross over for U-turns is excessively far away or the volume or type of traffic accessing the property requires full access.

Response to CR 21 East Access Comment

The US 14/MN 15/CR 21 interchange is being designed to accommodate CR 21 east access. A concept that allows access is shown in Exhibit F-2-2, but until additional design is completed, a firm commitment cannot be made. In order to ensure construction of the interchange with limited funding, a cost effective design is critical.

Response to 471st Lane Access Comment

Because 471st Lane will intersect new US 14 very near to where it rejoins existing US 14 west of Nicollet, MnDOT recognizes that a full intersection at this location will encourage eastbound travelers to access Nicollet by taking a left turn at an at-grade intersection on a curve instead of using the improved intersection one mile to the east. Although this creates an unfortunate need for adjacent landowners to go up to two and a half miles around, it is necessary from a safety standpoint. An overpass will not be provided because the cost (greater than one million dollars) is excessive for the benefit. To limit circuitry of travel a right in right out on 471st Lane south has been added to the existing plan for a westbound right on from existing US 14.

Response to Sign CR 37 as MN 15 Comment

The issue of re-routing Minnesota Highway 15 to County Road 37 does not fall within the purpose and need for this project; therefore it will not be considered in this EIS process.

Additional Alternatives for US 14 Comments



Some comments suggested MnDOT consider other alternatives for solving the problems on US 14 or expand the scope of the project. These included:

1. Select No-Build and use the State Patrol to control speeds
2. Bypass New Ulm
3. Extend the four-lane to Sleepy Eye, Minnesota
4. Utilize a new alternative in the East Study Section that follows the bluff overlooking the Minnesota River Valley
5. Split the alignment past Minnesota Valley Lutheran High School so that the Eastbound is on the existing alignment and westbound is on top of the bluff

Response to Select No-Build and use the State Patrol to Control Speeds Comment

Increased enforcement of traffic laws can improve safety on the highway, but it will not eliminate the fundamental issues associated with skewed intersections and the combination of grade and curves at the US 14/MN 15 intersection. Also, four-lanes will be needed to maintain a desirable Level of Service on the corridor.

Response to Bypass New Ulm Comment

A bypass of New Ulm was considered in the 14 West Interregional Corridor Management Plan (June 2003) and was determined to be unnecessary because the great majority of traffic on US 14 east and west of New Ulm had origins or destinations in New Ulm. Therefore, a bypass would be very expensive, but benefit few people.

Response to Extend the Four-Lane to Sleepy Eye, Minnesota Comment

New Ulm was the logical terminus for this study. If future traffic conditions or crash problems warrant a similar study on US 14 west of New Ulm one will be undertaken at that time.

Response to the Follow the Bluff Alternative in the East Study Section Comment

An alternative similar to that described was considered in Section 4.1 of the May 2003 Scoping Decision Document. It followed CR 25 because any alignment farther to the south would be crossing several ravines. This alternative was rejected because increased farmland and water way impacts and potential impacts to three cemeteries.

Response to the Split Alignment at MVL Comment

This concept will not be pursued because of potential safety problems of at-grade intersections on a one way road when the other direction of travel is not visible – people are likely to think it is a two way road. Furthermore, the expense and environmental impacts would far outweigh the benefits of this alternative.

Other Design Comments

One comment indicated that building on the bluff top would worsen blowing snow problems because it is not sheltered like the river valley.

Response to Blowing Snow Comment

This comment raised a good point that was not identified in the DEIS. The open landscape on the bluff top would result in more blowing and drifting snow unless the problems were mitigated through raising the road grade or purchasing additional land for snow fences. These



strategies may be necessary in the East Study Section, but should be avoided in the West Study Section by keeping the highway in the shelter of the river valley.

4.3.4.2 Responses to Reprinted Comments

The comments that follow are printed in their entirety for ease in characterizing the comments and responding to them.

106 ½ N Minnesota Street
PO Box 38
New Ulm MN 56073
Telephone: (507) 354-2161
Fax: (507) 354-2160

January 10, 2008

Peter Harff
MnDOT District 7
501 South Victory Dr
Mankato MN 56001

Re: Highway 14 Improvements

Dear Mr. Harff:

Please be advised that I represent the Hazel A. Heim Irrevocable Trust which is the owner of the following described property:

The South Ten (10) acres of the Southeast Quarter of the Southwest Quarter (SE¼ SW¼) of Section 36, Township 110 North, Range 30 West, except and reserving therefrom a strip of land two (2) rods wide along the whole from the western boundary of the aforementioned land, and running parallel and adjoining said western boundary line.

Also that portion of the Northeast Quarter of the Northwest Quarter (NE¼ NW¼) of Section 1, Township 109 North, Range 30 West, lying Northerly of State Highway No. 14, there situated

On behalf of the Trust I submit the following comments regarding the realignment for the new Highway 14.

First we thank you and express our appreciation to you and your department and your department personnel who have given due consideration and recognition in the past to the property held by the Trust and its attributes of historical and family significance. Such consideration and recognition is greatly appreciated.

The Trust prefers the US Highway 14 alternative north of the Trust property and north of the current Highway 14. We are in favor of this route since it leaves the property of the Trust untouched. The Trust property is a century farm and has a



designation as such, and it is also eligible for the National Register of Historical Places. Almost all of the buildings on the Trust property are eligible.

A1

In addition, we favor the north route because it would be safest for the traffic to and from Minnesota Valley Lutheran High School traffic to use the current Highway 14 as an access route to and from New Ulm, Courtland and other cities east and west. As you well know, there is currently significant traffic on the existing Highway 14 making left-hand turns off the highway difficult and unsafe. Countless times in our experience vehicles pass on the right-hand shoulder around vehicles waiting for oncoming traffic to clear to make a left-hand turn.

The Trust is opposed to Highway 14 improvements along the existing US Highway 14 south of the Trust property for several reasons.

First, any taking of property from the Trust will be the loss of significant value to the family beneficiaries of the Trust of both family and historical significance. Practically speaking there is realistically no alternate placement for the construction of a new home should the home on the Trust property be taken, therefore the property will have little or no value to the family or the Trust if land is taken from the Trust. The topography and terrain of the property is such that it would be very expensive to excavate for the new highway improvements and prohibit locating a new home, private septic system and well on the remaining property after a taking.

A2

If the existing Highway 14 corridor south of the Trust property is used to improve Highway 14 to a four-lane, it is the Trust's preference that such improvements be made several hundred yards south of the current highway roadbed adjacent to the Trust property thereby having little impact on the existing property. There is in addition the issue of the well that services the property, which is located just to the south of the current existing Highway 14. It would seem practical to move the highway improvements south of the existing Highway 14 insofar as there is significant area available there without any disruption to or taking of any major real estate improvements.

A3

We invite you to an on-site visit if you would like to further review the Trust property circumstances. Thank you sincerely for your consideration.

Very truly yours,

Jim Sutherland
507-380-0143

Steven J. Franta

Response

- A1 Cultural resources investigations during the DEIS determined that the historic farmstead both north and south of the highway is eligible for listing on the National Register of Historic Places (NRHP). The Heim farmstead is one of many NRHP eligible properties found throughout the project area.
- A2 The Preferred Alternative will expand existing US 14 by adding two lanes on the south side of existing US Highway 14, away from the part of the historic Heim Farmstead on which the structures are located. Access to the property on the north side of the highway will be provided via a frontage road.
- A3 Locating the Preferred Alternative further south to avoid the historic property boundaries would result in several impacts to the mining operations south of the highway as noted in the Section 4(f) Evaluation following the FEIS. The presence of the well is noted.



Questions for the Mn/Dot EIS group to answer. Please respond, before or at the two public hearings in Courtland and Nicollet in early Feb 2008. I plan to be present for the Courtland meeting.

- | | |
|--|----|
| <p>1. Ref. Executive study, pg 12. The Origin-Destination survey results “indicate 80% of the vehicles near New Ulm have a destination in New Ulm. But less than ½ traveling near Courtland or Nicollet have destinations in those communities”. “These figures indicate the relative usage of a bypass of New Ulm would be low while the usage of bypasses around Courtland and Nicollet would be high.” This survey concludes that going around Courtland and Nicollet make sense, but providing an “on the top of the bluff” for New Ulm does not. It will send only 20% of the vehicles to the top. In this case, “If you build it, they will NOT come.” So why build where people are not going? What does make sense is to improve where they <u>are</u> going, which is route W1, below the bluff. After this study, conclusion, and strong statement, why does Mn/Dot persist with W2?</p> | B1 |
| <p>2. New Ulm city planners recommend W1 not W2. What is their reasoning? How much influence do they have?</p> | B2 |
| <p>3. Top of the hill (W1) mingles, crosses and runs under a high voltage power line. See my sketch enclosed.</p> <ul style="list-style-type: none">• Is this legal?• Is the power line moveable?• If moved, is the extra cost accounted for?• If you say, “We will work it out,” I hear cost overruns, more homes displaced, and more wetlands eliminated.• How is this impact accounted for in the study? | B3 |
| <p>4. How can adding another long dangerous hill (120’ elevation change), moving tons of dirt, cutting a long way back into the hill be justified?</p> | B4 |
| <p>5. Why add another roadway to maintain? Isn’t this adding “perpetual care” to the cost to future generations?</p> | B5 |
| <p>6. The study estimates how much farmland and wetland will be lost. Either loss is not good. Both will be affected.</p> <ul style="list-style-type: none">• Which is more valuable?• If one is more valuable than the other, which is more valuable, and how many acres of one equal how many of another? <p>By value I mean both ecologically and dollar to purchase as well as tax revenue lost from agriculturalists.</p> | B6 |

- | | |
|---|----|
| <p>7. Wetland loss is measured and valued. How are dry forested land and disruptive bluff cuts measured? This kind of land is just as much a wildlife refuge. How is restored Minnesota prairie measured and valued? I have 3 acres in RIM and 5 acres of woods. The top of the bluff, (W2) will impact both. The bottom (W1) will effect some too, but less. I personally did <u>not</u> build my house in the woods so they would be preserved. Then I obligated more acres to RIM. Do you have an obligation to maintain RIM Prairie? Will dry woods saved, mitigate wetlands lost? Will restored prairie (RIM) mitigate wetlands lost?</p> | B7 |
| <p>8. It was announced on the evening news on Thursday 1/24/08 that “traffic has <u>decreased</u> in MN, and it could affect future planning”. How will it affect this project?</p> | B8 |
| <p>9. Please discuss the good points, then Mn/DOT’s suggested improved solutions to the following route:</p> <ul style="list-style-type: none"> • From the northern bypass, West of Courtland, where it runs near old 14 between Courtland and MVL, connect there and stay on present 14. • Run 14 more to the S. edge of 14, toward the quarry side, to displace fewer homes, and avoid MVL. • Interchange with 39 on that level. • Use a minimal center median or leave 2 lanes, with turn off lanes, below the bluff to the hwy 14 bridge. • Consider a traffic circle to join 15, 14, and 21 all on one level. | B9 |

I would be happy to clarify my questions to help you prepare a quality set of answers. Thank you Peter, for your responses.

Regards, Norman Kopp
 43206 Windhaven Ln
 New Ulm, MN 56073
 H (507) 359-1160, W (507) 233-2034 X 116
 nkopp@newulmtel.net



Responses

Responses to Mr. Kopp’s questions were provided prior to the public hearings and are reproduced here with some modifications to clarify issues that were resolved in selecting the Preferred Alternative.

- B1 The O-D study results indicate that an improved US 14 should enter New Ulm instead of bypassing the city. It does not lead to the conclusion that a top of bluff alternative that enters New Ulm at the current river crossing would be without merit. While there are certainly benefits to staying on the existing alignment, Alternative W2 has been retained for study because it avoids the floodplain impacts, the less desirable narrow median that would be constructed between MN 15 and CR 37, and other impacts. Alternative W2 was not selected as the Preferred Alternative.
- B2 The City of New Ulm had not indicated a preference for one alternative over another at this point. The well-reasoned opinion of local units of government does bear some additional weight because they are responsible to represent the interests of a large group of people. However, the Preferred Alternative decision is ultimately made by MnDOT and FHWA.



- B3 Yes, it is legal to cross under the lines and they are moveable. The cost for utility relocations is included in the estimate at a high level, but there would be more details to work out. The impact is accounted for in the cost, the land impacts of moving the lines would be relatively minor and would be sited to avoid other impacts as much as possible. However, the top of bluff alternative was not selected as the Preferred Alternative.
- B4 The negatives listed can only be justified if the decision makers consider the negatives of the floodplain impacts, the reduced safety of a narrow median, and other impacts of Alternative W1 to be worse than the sum of the impacts of Alternative W2. None of the options (including the No-Build) is without impacts that would be difficult to justify unless the alternative effects are considered.
- B5 Yes, anytime a road is built on new alignment and the existing is kept in place, we are adding to future maintenance costs.
- B6 Farmland has a higher market value; wetlands have more legal protection. In the end, it costs more per acre to replace wetlands than it does to purchase farmland. This does not include a valuation of the losses or gains in ecological benefits or tax revenue losses. Nor does it include additional construction costs to deal with the poorer soils typically associated with wetlands (which can be significant). As mentioned, wetlands are legally protected by both federal (Clean Water Act) and state (Wetland Conservation Act) laws. Essentially, wetland impacts are to be avoided when possible.
- B7 These valuable resources do not generally have the same legal protection as wetlands. We include information on these resources (though not in as much detail as wetlands) in the Draft EIS to alert the decision makers and public to the effects. RIM prairie does not carry any special legal protection and there is no replacement requirement for RIM acres. Neither upland woodland saved nor restored upland prairie count toward wetland mitigation requirements.
- B8 While traffic is decreasing on some routes and overall vehicle miles travelled may drop in any given year, the traffic is still expected to increase with time; therefore the project need remains the same.
- B9 1st Bullet - this is alternative W1 - please refer to the DEIS for full discussion.
2nd Bullet - this would require construction over the very valuable rock in the quarry, thus making it unavailable for construction uses.
3rd Bullet - an interchange with County Highway 37 in the river valley would be doable.
4th Bullet - a narrow median is less desirable for safety. MnDOT would build a median barrier (either high tension cable or concrete) if building a narrow median. The barrier would prevent cross-median crashes, but would itself be a hazard (thus it would reduce the severity of crashes, but not be as good as having a wide median). Although the traffic volumes diminish west of CR 37 (6100 vehicles per day vs. 8000 vehicles east of CR 37), a four-lane highway remains the preferred design.

5th Bullet - the Draft EIS notes the possibility of a modern roundabout (technically different from a traffic circle) at the intersection with MN 15. Further consideration points to the need for a grade separation to maximize safety at this intersection.

Mr. Kopp also resubmitted the following list of concerns that had been provided prior to publication of the DEIS in order to have it included in the formal record. The comments below are similar to those addressed above and in the DEIS. No additional responses are needed, but the text is reproduced below.

**U. S. HIGHWAY 14 CORRIDOR, LANDOWNER SURVEY
FOR THE SECTION BETWEEN HWY 37 & 15.**

Mr. Peter Harff, Mn/Dot District 7 Project Manager.

Thank you for the close communication you have provided us before making your recommendation of the "Preferred Alternative".

The 20 affected land-owners, who have signed below, were surveyed for their preference for the "River Valley Alignment", or either of the "Top of Bluff" alignments. The survey concluded that the overwhelming majority preferred the River Valley Alignment including interchange 1a with hwy 15. Obviously, every individual would like the least disruption to their lives, property, income base, and the environment. But the reasons given below, also address the common good of the people of Minnesota.

Please contact any of the undersigned for more details.

1. For budget (taxpayer) responsibility, the River Valley Alignment is overwhelmingly the best. With the "Graying of America", why add to the perpetual tax burden.
2. The Top of Bluff will take another significant portion out of our natural environment. Minnesota's relatively, recent wildlife friendly philosophy i.e. RIM will be violated.
3. The Top of Bluff will take another significant portion out of our productive land. The individuals affected may be relatively small but the effect is large in proportion to the agricultural impact.
4. The hwy 14/15 interchange, in alignment 1a is free flowing. The other two have a stop sign in hwy 15. Curiously, hwy 15 has no stop signs the way it is now.
5. The Top of Bluff interchange 1b plan includes at least a 120 foot elevation change. This could take a longer, wider area than the present two-dimensional map indicates.

6. The WPA water fountain on hwy 14 should not prevent the widening. It is not a "sacred" memorial. It was built by the WPA for the betterment of working Americans. We should support this belief with a move/restoration. It need not run, it hasn't for years. It steadily crumbles, but we do not have the funds or public demand to repair it. Many of the stone are gone, and may be beyond proper restoration.
7. Why end up with two roads to maintain? With two more dangerous slopes (one up, one down).
8. Most of the hwy 14 traffic starts or ends in New Ulm. Therefore it is divided between the hwy 14 and 37 bridges. Therefore the section between 14 to 37 need not be so grand or long, because it carries much less traffic. It could be at a lower speed limit, and people will still get to New Ulm faster than the Top of Bluff Alignment.
9. Access of hwy 21 should be maintained as the River Valley Alignment is chosen, moved forward and improved. Adding ten minutes to the bluff residents' drive to New Ulm is not an improvement.

7/6/04



Date: 2/6/2008 9:18:32 AM
Subject: TH14 Corridor Comment

Mr. Harff,

I attended the Public Hearing in Courtland on Tuesday and wanted to say that you and your group did a very good job of presenting and laying out the different options for the TH 14 corridor. I am a resident of New Ulm, MN and very frequently travel TH 14. I tend to look at this project from a couple different standpoints, being part of the affected traveling public, and the constructability of each of the different proposed routes.

First I would just like to say I would like to see this project built as soon as possible due the extremely dangerous nature of this road. I do understand funding is the big obstacle. But I ask that this project remains a top priority as the funding becomes available.

C1

My preference on the west end is W2, with W3 as a second choice. I do not believe W1 is a good option. Both W2 and W3 avoid a potential dangerous situation with young and inexperienced drivers from MVL entering directly onto a high speed highway. We must remember that one of the main goals in constructing this road was, increasing the traveling publics safety. W1 and W3 have more effect on the flood plain area and affect the traveling public during construction.

C2

On the east end I would prefer to see options E3 or E4. From what I understand, the City of Nicollet has indicated that they prefer the interchange closer to their town and not at the E4. So I see E3 as being the best alternate. It avoids several sweeping curves as in E1.

C3

Another one of the major benefits I see to the W2 and E3 combination is the limited impacts to the safety of the traveling public during construction. This project will undoubtedly take much time to construct. The more construction taking place adjacent to traffic, the greater the chances are of accidents, slow downs, and detours to TH 14. With most of the construction taking place in new locations, traffic can maintain its existing patterns and speeds can be relatively unaffected until the time for making the hookups.

C4

I understand that roundabouts do have a time and a place. But I just don't believe the intersection of TH 14 and TH 15 is a good application. The traveling public would be better served with a bridge and ramps if the alternative is to be built in that location.

C5

I appreciate you and your staff taking the time to consider the publics comments.

Sincerely,

Dale Schweiss



Response

- C1 MnDOT District 7 has a budget of approximately \$40 million per year. With this money we are responsible to maintain over 1300 miles of highway and over 500 bridges. Because allowing the existing infrastructure to fall apart costs much more in the long run, MnDOT's top priority is to maintain what is already in place. Despite the significant maintenance needs, District 7 has continued to develop expansion projects on other segments of US 14 and will advance the design on this project to leverage funding opportunities.
- C2 MnDOT is likewise concerned for the young drivers and has developed an improved intersection concept shown in Exhibit F-2-4.
- C3 All curves on Alternative E1 meet MnDOT standards for a 70 mph design speed.
- C4 Project construction will undoubtedly cause detours and construction related delays, but, because of the existence of parallel routes, they do not rise to the level of warranting a completely new alignment for the highway. Traffic management and construction staging will be developed closer to the time of construction.
- C5 A roundabout would function adequately in this location. The down side would be slowing northbound MN 15 traffic, especially trucks, climbing the hill. Therefore, MnDOT is planning to construct a grade separation here.



COMMENTS REGARDING THE T.H. 14 DRAFT IES AND SECTION 4(f) EVALUATION; MNDOT PROJECT: 5200-03

Commenter: Jeffrey G. Carlstrom, General Manager, New Ulm Quartzite Quarries (NUQQ), Inc., 45755 571st Lane, New Ulm, MN 56073. Phone 507-354-2925; e-mail: jcarlstrom@nuqq.com

Date: February 20, 2008

We are in support of the W2 Top-of-Bluff Alignment and against the W3 River/Bluff Combination Alignment. Both alignment options are located in the West Study Section of the US 14 EIS Report, (Courtland Township).

Our concerns are as follows:

a.) NUQQ is presently developing a second quarry (East quarry) that is within 300 feet of proposed new alignment option (W3 River/Bluff) at the northeast corner of quarry property (see sketch attached). The East quarry represents approximately half of our known high quality aggregate reserve.

b.) In 2007, an estimated 20,770 truck trips originated from our quarry operation in New Ulm, MN. Our sole ingress / egress point is on TH 14. Most of this truck traffic occurred over an eight month period (April through November). Our sales growth (tons) over the past 10 years and five years has averaged 9.0% and 12.4% respectively. Extrapolation of these figures augers for trip numbers exceeding 49,000 by 2018. Surrounding aggregate sources are being depleted and overgrown at an increasing rate. Additionally, a trend towards specifying higher quality aggregates, by MNDOT and other public agencies has increased crystalline rock sales (granite, quartzite and trap rock). These higher quality aggregates are substituting -- more often -- for lesser quality gavels and highly absorptive limestone in bituminous and concrete paving.

D1

c.) NUQQ is currently in possession of a road closure permit for TH 14. The purpose of this closure permit is to allow blasting in our new East quarry without endangering the public by momentarily halting vehicular traffic on TH 14. This permit was issued by MNDOT and is renewed every year. Currently most of our blasting occurs in our mature West quarry which is >1,000 feet from TH 14. Road closure is not required for blasting in our West quarry. We anticipate East quarry blasting to increase in frequency in the near future and eventually to overtake West Quarry blasting. Frequency of our blasting is approximately once every six working days. We anticipate a tightening of this schedule to a frequency of once per five days or less. Although we have yet to exercise a road closure under the conditions of the permit, we estimate closure time to be eight minutes per blast event.

D2

We believe that under the circumstances outlined above, all stakeholders would be best served by the W2 Top-of-Bluff Alignment option. Conversely, the W3 River/Bluff Combination Alignment option would be problematic for all stakeholders. The W3 River/Bluff option will potentially create more congestion, reduce travel times due to frequent road closures and create a greater threat to the safety of commuters on TH 14 and NUQQ employees involved in the TH 14 road closure activities.

Thank you for your review and consideration of these comments.

END

Response

D1 MnDOT recognizes the value to society of the rock and aggregates produced at New Ulm Quartzite Quarry. Coordination with the Quarry will continue to ensure safe and workable access for trucks hauling materials out.

D2 The need to occasionally close the highway for blasting is one of the negative effects of selecting Alternative W1; however, the impacts associated with the Top-of-Bluff alternatives are substantial and outweigh the negatives of keeping the highway on the existing alignment.

NOTE: New Ulm Quartzite Quarry submitted a second letter addressed to Jim Swanson, MnDOT District 7 Transportation Engineer. Since that letter primarily reiterated concerns expressed in the DEIS comment letter, specific responses are not provided.



4.4 Additional Coordination Documentation

The reproductions of letters and emails that follow document agreements or understandings developed in coordination with other agencies, entities, and individuals. Some pre-date the DEIS while others have occurred since the Preferred Alternative was selected. They are organized by topic and date.



United States Department of Agriculture



Natural Resources Conservation Service
209 West Mulberry Street
St. Peter, MN 56082-2029

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Phone: (507) 931-2530
FAX: (507) 931-4619

February 5, 2007

Jeffrey W. Olson
Wetland Scientist/ Botanist/ Plant Ecologist
CH2M HILL
1295 Northland Drive
Suite 200
Mendota Heights, MN 55120

Enclosed is the Farmland Conversion Impact Rating form (form AD-1006) for the improvement project on US Hwy. 14, from New Ulm to North Mankato. Thank you for sending information on your project for me to review. The Ad-1006 forms and the shape files of the different proposed routes you sent me were complete, enabling me to complete the forms without any delay. Where federal funds are involved, and prime farmland is converted, an AD-1006 must be completed.

The purpose of the Farmland Protection Policy Act (FPPA), is to minimize the extent that federal programs contribute to the unnecessary and irreversible conversion of prime and statewide important farmland to non-agricultural uses. The FPPA requires federal agencies involved in projects that may convert farmland, to determine whether the proposed conversion is consistent with FPPA.

I have completed parts II, IV, and V on the AD-1006 forms (W1 to W3 on the west part and E1 to E4 on the east part). Also appended is a copy of the prime and statewide important farmland list for Brown and Nicollet Counties, and the soil map for the project area with the project area highlighted.

If I can be of further assistance, contact me at 507-931-2530, Ext. 107.

Sincerely,

A handwritten signature in black ink that reads "Douglas E. Miller".

Douglas E. Miller
Area Resource Soil Scientist

Cc: Stephanie McLain, District Conservationist, St. Peter
Greg Tennant, District Conservationist, Sleepyeye

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"E Alternatives" ; U.S. 14

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request 1/30/07			
Name Of Project US 14 EIS from New Ulm to North Mankato, MN		Federal Agency Involved Federal Highway Administration			
Proposed Land Use Roadway and Right-of-Way		County And State Brown and Nicollet Counties, Minnesota			
PART II (To be completed by NRCS)		Date Request Received By NRCS 2-2-07			
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply -- do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Acres Irrigated 0	Average Farm Size 308
Major Crop(s) Corn / Soybeans	Farmable Land In Govt. Jurisdiction Acres: 225,200 % 80	Amount Of Farmland As Defined in FPPA Acres: 191,420 % 85			
Name Of Land Evaluation System Used LE	Name Of Local Site Assessment System N/A	Date Land Evaluation Returned By NRCS 2-5-07			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site-A E1	Site-B E2	Site-C E3	Site-D E4
A. Total Acres To Be Converted Directly		666.0	658.0	669.0	639.0
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		666.0	658.0	669.0	639.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		535	584	581	573
B. Total Acres Statewide And Local Important Farmland		93	99	108	49
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		0.30%	0.29%	0.30%	0.28%
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		88%	36%	88%	36%
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		88	89	85	89
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	15	15	15
2. Perimeter In Nonurban Use		10	10	10	10
3. Percent Of Site Being Farmed		3	9	9	9
4. Protection Provided By State And Local Government		0	0	0	0
5. Distance From Urban Builtup Area		10	10	10	15
6. Distance To Urban Support Services		10	10	10	10
7. Size Of Present Farm Unit Compared To Average		10	10	10	10
8. Creation Of Nonfarmable Farmland		0	1	1	1
9. Availability Of Farm Support Services		5	5	5	5
10. On-Farm Investments		20	20	20	20
11. Effects Of Conversion On Farm Support Services		0	0	0	0
12. Compatibility With Existing Agricultural Use		0	0	0	0
TOTAL SITE ASSESSMENT POINTS	160	83	90	90	95
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)	100	88	89	85	89
Total Site Assessment (From Part VI above or a local site assessment)	160	83	90	90	95
TOTAL POINTS (Total of above 2 lines)	260	171	179	175	184
Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Reason For Selection:					

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

Note - the quantity of farmland impacts reported in Parts III and IV on these forms is not accurate. See Tables F-3-2 in Section 3.2.2.2 and F-3-6 in Section 3.4.2 for correct impact acreages.



"W Alternatives"; U.S. 14

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)		Date Of Land Evaluation Request		1/30/07	
Name Of Project		US 14 EIS from New Ulm to North Mankato, MN		Federal Agency Involved	
				Federal Highway Administration	
Proposed Land Use		Roadway and Right-of-Way		County And State	
				Brown and Nicollet Counties, Minnesota	
PART II (To be completed by NRCS)		Date Request Received By NRCS		2-2-07	
Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes	No	Acreage Irrigated	Average Farm Size
		<input checked="" type="checkbox"/>	<input type="checkbox"/>	0	308
Major Crop(s)	Farmable Land In Govt. Jurisdiction	Acres:	%	Amount Of Farmland As Defined in FPPA	Acres:
Corn/Soybeans		225,200	80	191,420	85
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS			
LE	N/A	2-5-07			
PART III (To be completed by Federal Agency)		Alternative Site Rating			
		Site A W1	Site B W2	Site C W3	Site D
A. Total Acres To Be Converted Directly		352.0	343.0	357.0	
B. Total Acres To Be Converted Indirectly					
C. Total Acres In Site		352.0	343.0	357.0	0.0
PART IV (To be completed by NRCS) Land Evaluation Information					
A. Total Acres Prime And Unique Farmland		246	224	228	
B. Total Acres Statewide And Local Important Farmland		23	24	29	
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted		0.17%	0.15%	0.16%	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value		99%	99%	99%	
PART V (To be completed by NRCS) Land Evaluation Criterion					
Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)		73	69	68	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		11	15	13	
2. Perimeter In Nonurban Use		10	10	10	
3. Percent Of Site Being Farmed		3	7	5	
4. Protection Provided By State And Local Government		0	0	0	
5. Distance From Urban Builtup Area		5	5	5	
6. Distance To Urban Support Services		10	10	10	
7. Size Of Present Farm Unit Compared To Average		10	10	10	
8. Creation Of Nonfarmable Farmland		0	4	2	
9. Availability Of Farm Support Services		5	5	5	
10. On-Farm Investments		20	20	20	
11. Effects Of Conversion On Farm Support Services		0	0	0	
12. Compatibility With Existing Agricultural Use		0	0	0	
TOTAL SITE ASSESSMENT POINTS	160	74	86	80	0
PART VII (To be completed by Federal Agency)					
Relative Value Of Farmland (From Part V)		100	0	73	0
Total Site Assessment (From Part VI above or a local site assessment)		160	0	74	0
TOTAL POINTS (Total of above 2 lines)		260	0	147	0
Site Selected:		Date Of Selection		Was A Local Site Assessment Used?	
Reason For Selection:				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

(See Instructions on reverse side)

This form was electronically produced by National Production Services Staff

Form AD-1006 (10-83)

Note - the quantity of farmland impacts reported in Parts III and IV on these forms is not accurate. See Tables F-3-2 in Section 3.2.2.2 and F-3-6 in Section 3.4.2 for correct impact acreages.





Minnesota Department of Natural Resources

Division of Ecological Services
261 Highway 15 South
New Ulm, MN 56073

9/28/04

Peter Harff, Project Engineer
Minnesota Department of Transportation (District 7)
501 South Victory Drive
Mankato, MN 56001-5302

Re: U.S. 14 Corridor Study/EIS Scoping Comments

Dear Mr. Harff:

The Minnesota Department of Natural Resources (DNR) appreciates the opportunity to participate in the U.S. 14 Corridor Study/EIS agency workshop and subsequent planning meetings. I apologize for the delay in our response; however, U.S. 14 is an important transportation corridor and we are pleased to provide the following comments. The response below includes comments on the natural resource concerns, proposed alignment alternatives, and Concurrence Points 1 and 2.

General Project Comments

All of the alignment alternatives for U.S. 14 between Mankato and New Ulm will have wetland impacts. Wetland impacts should be avoided and minimized where possible; however, DNR understands that some impacts will be necessary. Wetland mitigation for this project presents an opportunity to restore lost wetlands in this watershed. Wetland mitigation associated with transportation projects often includes the creation of small, isolated basins. These artificial habitats typically maintain limited wildlife and water quality protection value.

To realistically achieve wetland mitigation that results in no net loss of wetland area and function, the DNR prefers that wetland restoration remain a high priority. Within the Swan Lake Project Area (see attached map), there are numerous drained wetlands that would make excellent mitigation sites. The DNR would like the wetland replacement needs for the entire project be combined and mitigated via a restoration of a larger basin within the Swan Lake Project Area – providing an important habitat addition to the area. The DNR is willing to help monitor the availability of potential restoration sites. Considering inflation and land values, it would be wise to secure property and complete the wetland restoration in anticipation of the need as soon as possible.

The U.S. 14 corridor between Mankato and New Ulm is a potentially important production area for pheasants, songbirds, and other wildlife. These wildlife will utilize

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healthy vegetated habitats in road ditches. Therefore, DNR would like some commitment to the use of native grasses and forbs to seed roadsides associated with this project. In addition, these plantings would need to be carefully managed to maximize wildlife habitat value. A mowing management plan should be developed to avoid undesirable cropping and damage to the native plant communities.

The mowing management plan could provide the requirements to maintain a reasonably healthy native grass community without needing prescribed burns. For this plan to be successful, a prohibition of hay mowers would need to be included. Maintenance mowings would need to be restricted to between August 1 and September 1, but not necessarily during every year. Late summer mowings could also help alleviate safety concerns.

The development of a grassland roadside management plan could improve habitats along this corridor and mitigate for grasslands lost or disturbed during construction. For more information about the importance of roadsides as habitat, please visit the "Roadsides for Wildlife" website at <http://www.dnr.state.mn.us/roadsidesforwildlife/index.html>.

Nicollet Bypass Alternatives

The DNR has several natural resource concerns associated with the Nicollet bypass alternatives. As discussed above, the "near south" and "far south" bypass alternatives both have the potential to impact wetlands. As discussed at our last meeting, DNR remains concerned about the potential for impacts of the "far south" alignment on a controversial wetland habitat in the NW of the SW of Section 9 in Township 109 and Range 28. This wetland is regulated by both the Wetland Conservation Act and by the DNR Division of Waters. To avoid delays and political controversies, avoidance of this wetland is recommended.

The Swan Lake Wildlife Management Area (WMA) along the existing U.S. 14 alignment is an area of concern for the DNR. Additional alternatives discussed at our last interagency meeting identified a route that could cut to the south of this WMA unit in the NW quarter of Section 7 in Township 109 and Range 28. This wetland continues to maintain some function and has additional restoration potential. This habitat area is adjacent to the Swan Lake WMA and should be considered during your assessment.

The Swan Lake WMA is a point of concern; however, the DNR will need more information before we can develop a position about the potential impacts the U.S. 14 corridor may have on the WMA. The DNR is open to alternatives that include the U.S. 14 upgrade remaining on the existing alignment, as alternatives on existing infrastructure may have less overall impact to the corridor. The DNR will need to develop a biological opinion and consider the federal funding criteria and limitations that were used to purchase this property. To develop a biological opinion, we will need to know more about the long-term plans for the existing U.S. 14. If the alignment segment through the WMA is vacated, could the roadway be removed and the right-of-way (ROW) be

transferred back to the DNR? If the existing alignment is utilized, will the new ROW center on the existing, or will the new ROW be offset? Regardless of the final alignment, the DNR wants to maintain accessibility to the Swan Lake WMA access. It should be noted that traffic volumes of slower vehicles, often towing boats, increase in this area annually during hunting seasons.

Courtland Bypass Alternatives

The bypass options to the north of Courtland appear to create minimal conflicts. DNR's primary concern for both the "near north" and "far north" alternatives is the development of new alignment – areas where existing infrastructure is not currently present. DNR prefers that existing infrastructure be utilized to the greatest extent possible. One possible issue with the "near north" alignment may also be some encroachment of ravine and steep sloped areas.

Minnesota River Area

The bluff top alignment presented at the agency workshop in July was too close to the bluffs and impacted several ravines. Several options that sent the roadway up the bluff were of concern. During the interagency meeting on 25 August 2004 in Mankato, it was noted that the River segment of the project had been reduced to two alternatives – the existing 14 alignment and a bluff top option. MNDOT staff and consultants went on to express that the bluff top alignment would be set further back than previously proposed. Setting the roadway back from the bluff would impact fewer resource areas of concerns and reduce habitat disturbance. Given the bluff top option modifications, DNR believes that the bluff top alignment will likely have fewer impacts on the resources of the area.

DNR staff are concerned that disturbances to sloped areas along the existing 14 alignment could have detrimental influences on local corridor habitats. Numerous locations in the New Ulm area have been impacted by seepage patterns that were not predictable during the planning process. As a result, the integrity of these slopes due to natural water conditions, in addition to the heavy rainfall patterns, could be questionable. Floodplain fill should also be avoided and the project will impact riparian habitats.

With a bluff top alignment, however, DNR is concerned about the perceived need for a connection down the slope to Highway 37. A connection roadway from the bluff top alignment to the Highway 37 intersection could have significant erosion and habitat disturbance consequences. This sloped area is stable and vegetated and should not be disturbed.

Concurrence Points

Based on the information above, the agency workshop, and other discussions between DNR and MNDOT staff, we believe that Concurrence Points 1 and 2 have been reasonably achieved. Although DNR and MNDOT staff do not agree on all points, the

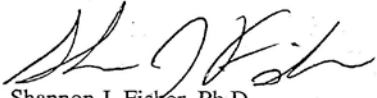
purpose and need for the project have satisfactorily explained. DNR also believes that key resources and environmental concerns to be addressed in the EIS have been identified.

DNR staff have a reasonable understanding of the project goals; however, the environmental goals appear to be implied and not clearly expressed. Environmental concerns are listed and MNDOT has expressed their intentions to review a large number of potential concerns in the EIS for this project. The environmental goals have been discussed in a diffuse manner during these scoping efforts. At this stage in the process, DNR believes that environmental concerns have been sufficiently addressed.

In regards to Concurrence Point 2, DNR staff are satisfied with the alternatives review and the flexibility that MNDOT staff have exhibited in alternative alignment discussions. The initial alternatives that were considered were appropriate and the alternatives that have been carried forward to this point provide a sufficient number of options to consider. The current alternatives, as we discussed at our last meeting in Mankato, may need refining to avoid wetlands, reduce DNR land impacts, and avoid bluffs on the west end of the project area.

In closing, we agree that Concurrence Points 1 and 2 have been satisfied; however, Concurrence Point 3 will likely have more challenges as we begin to finalize options and alignments. DNR staff appreciate the opportunity to be involved in the early stages of this project and look forward to our continued inclusion in the planning process of this roadway. Please do not hesitate to contact me if you have any questions.

Regards,



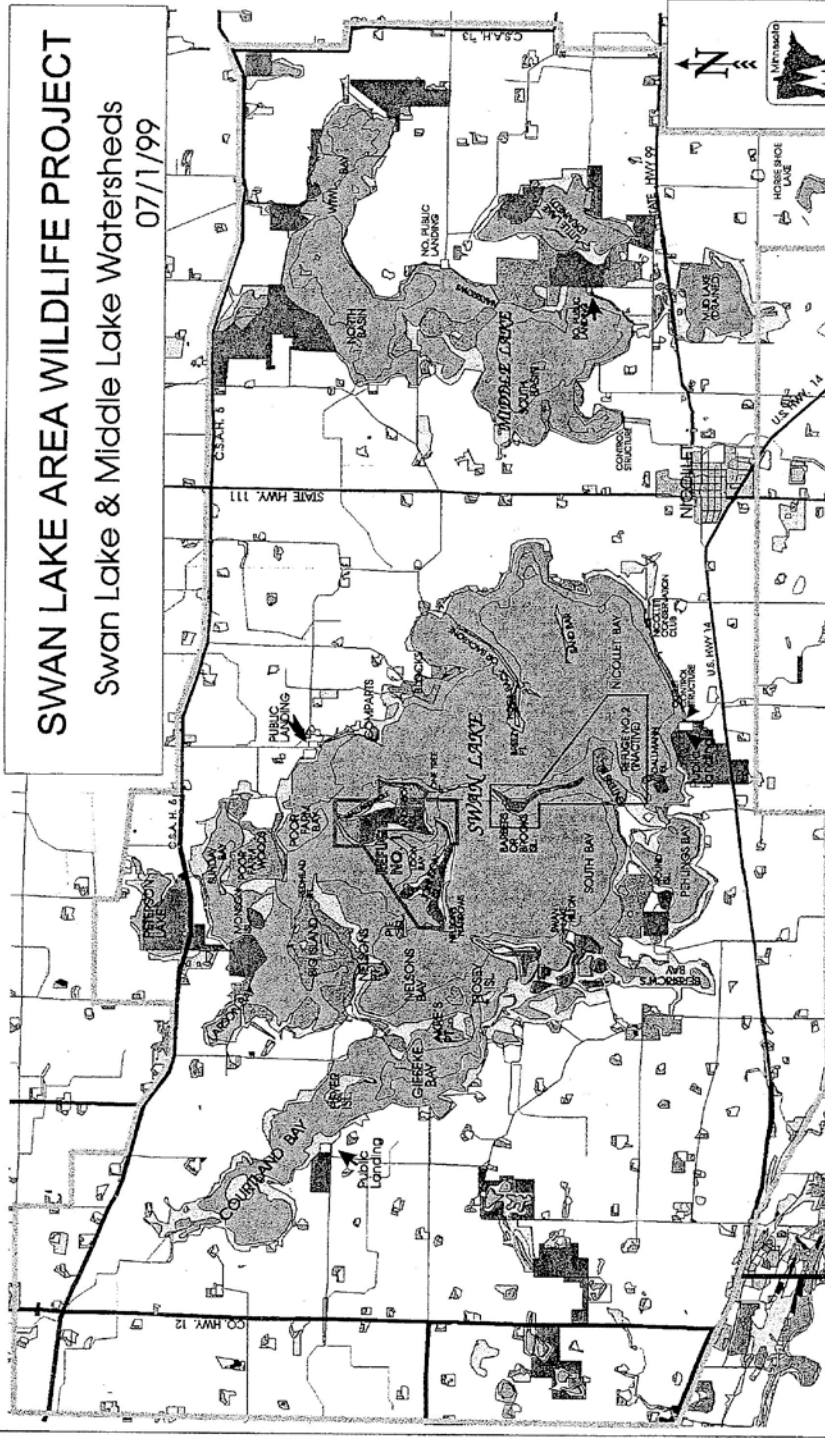
Shannon J. Fisher, Ph.D.
Environmental Assessment Ecologist
(507) 359-6073
Shannon.fisher@dnr.state.mn.us

Cc: Tom Balcom, DNR Env. Mgmt.
Ken Varland, DNR Wildlife
Cheryl Heide, DNR Reg. Ops.

SWAN LAKE AREA WILDLIFE PROJECT

Swan Lake & Middle Lake Watersheds

07/1/99



- STATE WILDLIFE MANAGEMENT AREAS
- TIMBER
- GRASSLANDS/MARSH
- PROJECT AREA 'A' BOUNDARIES

Gute, Mary/MSP

From: Gute, Mary/MSP
Sent: Wednesday, October 03, 2007 10:53 AM
To: Gute, Mary/MSP
Subject: FW: US 14 Improvements, Draft EIS NPS Coord., Rivers Inventory (MinnesotaRiver)

Attachments: pic24221.jpg



pic24221.jpg

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

From: Sue_Jennings@nps.gov [mailto:Sue_Jennings@nps.gov]
Sent: Friday, August 03, 2007 10:44 AM
To: Olson, Jeff/MSP
Subject: Fw: US 14 Improvements, Draft EIS NPS Coord., Rivers Inventory (MinnesotaRiver)

Hi Jeff----

Thank you for your early coordination efforts to ensure the proposed project does not adversely affect the Minnesota River, which is listed to the Nationwide Rivers Inventory. Your note indicates the design of the US 14 bridge to New Ulm is still very conceptual, however, it is known that the beams would be at the same elevation or slightly higher than the current bridge and the bridge would be replaced in the same corridor alignment as the existing bridge. Our comments are as follows:

This particular segment of the Minnesota River is listed on the Nationwide Rivers Inventory (NRI) prepared by the National Park Service (NPS). The NRI is a register of rivers that may be eligible for inclusion in the National Wild and Scenic River System. These rivers were included on the NRI based on the degree to which they are free-flowing, the degree to which the rivers and their corridors are undeveloped, and the outstanding natural and cultural characteristics of the rivers and their immediate environments. Section 5(d) of the National Wild and Scenic Rivers Act requires that, "In all planning for the use and development of water and related land resources, consideration shall be given by all federal agencies involved to potential national wild, scenic and recreational river areas." In partial fulfillment of the section 5(d) requirements, NPS has compiled and maintains the NRI.

The intent of the NRI is to provide information to assist in making balanced decisions regarding use of the nation's river resources. A Presidential directive and subsequent instructions issued by the Council on Environmental Quality required that each Federal agency as part of its normal planning and environmental review processes, take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, all agencies are required to consult with NPS prior to taking actions that could effectively foreclose wild, scenic, or recreational status for rivers on the inventory.

1



The Minnesota River was listed on the NRI because of its free-flowing condition and outstanding scenic, recreational, wildlife and historic values. As you are in the early planning stages, our comments general in scope. As such, to reduce impacts to the river, we recommend that the following measures are included in planning the proposed project:

1. Design access and staging areas to minimize disturbances to the bed and banks of the river.
2. To the extent practicable, utilize the same alignment for the replacement bridge in order to reduce tree removal and other impacts in the riparian zone, and to limit additional intrusion on the scenic viewshed. Placement of the piers outside the river channel is recommended.
3. Trees and other woody vegetation existing along the riverbank should not be removed unless absolutely necessary. Any vegetation removed should be replaced with the same or similar native species;
4. Integrate a bank stabilization system that includes native vegetative plantings rather than hardened systems such as riprap to the extent practicable. As a suggestion, native fieldstone should be used, covered with topsoil above the ordinary high watermark, and planted with native vegetation where practicable (excluding areas under the bridge deck).
5. Erosion control plans should be designed to incorporate measures to minimize short-term and long-term sedimentation impacts. All erosion control devices that are installed should be monitored on a regular basis throughout the duration of the project.
6. During bridge removal, all efforts should be in place to minimize impacts to water quality and habitats at the site and downstream of the site. Shrouds, tarps or other catchment devices should be utilized to minimize debris entering the river. Equipment should be inspected for fluid leaks.
7. Minimize impacts to the river bottom if removal of existing piers and/or construction of new piers in the river channel is necessary---operating equipment from the banks is preferred. If causeways or work pads is necessary, in-stream flows should be maintained.
8. Any fill placed above the ordinary high water level should be stabilized as soon as possible;
9. Bridge design should include the use of earthtone colors (concrete tinting, paints) to minimize visual intrusion.
10. All traces of construction materials and equipment should be removed from the project site upon project completion.

Once the draft EIS is available, we would like an opportunity to review and offer additional comments. For coordination purposes, the draft EIS should be mailed (hard copy) to Mr. Nick Chevance, Regional Environmental Coordinator at the same address indicated below, as there may be other resources of interest to the NPS involved. If you have questions or require additional information, feel free to give me a call.

These comments have been provided as early technical assistance and do not necessarily indicate the NPS' or DOI's responses to future environmental documents prepared in association with the project.

Thank you,

~~~~~  
Sue Jennings  
Regional Wild and Scenic Rivers Specialist

2



National Park Service-Midwest Regional Office  
601 Riverfront Drive  
Omaha, Nebraska 68102

(Office) 402/661-1848  
(Fax) 402/661-1982  
www.rivers.gov/

----- Forwarded by Sue Jennings/Omaha/NPS on 08/03/2007 10:21 AM -----

<Jeff.Olson@CH2M.com> To:  
<sue\_jennings@nps.gov>  
07/26/2007 08:33 AM CST cc:  
Subject: US 14 Improvements,  
Draft EIS NPS Coord., Rivers Inventory (Minnesota River)

Hello Sue,

It was good talking with you this morning. Per our phone conversation, attached is a drawing showing existing roads, proposed improvements, aerial photography, and other features in the vicinity of the US bridge to New Ulm. The US 14 project area extends from New Ulm to west of North Mankato - however, the only area close to the Minnesota River is depicted on the attached figure.

As I mentioned, design on the US 14 bridge to New Ulm is still very conceptual, but we do know that the structural beams will be at the same elevation or slightly higher than what is on the current bridge. And we do know that the bridge will be replaced in the same location as the current bridge. The boat landing operated by the City of New Ulm (Minnecon Park) will not be affected by the proposed improvements .

As part of the improvements to US 14, its intersection with Hwy 37 will also be improved. The improvements to Hwy 37 may introduce temporary construction-related inconveniences to those using the Eckstein Landing (operated by the Minnesota Department of Natural Resources). However, the end result will be an improved entrance to and exit from the Landing.

When you have had time to digest this information - could you send me an e-mail as to whether NPS believes the improvement to US 14 will / will not introduce adverse impacts to the Minnesota River and its status on the Rivers Inventory.

Your e-mail will become part of the official agency coordination associated with this project.

We really appreciate your assistance!

Best Regards,

Jeffrey W. Olson  
Wetland Scientist/ Botanist/ Plant Ecologist

3





REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
ST. PAUL DISTRICT, CORPS OF ENGINEERS  
190 FIFTH STREET EAST, SUITE 401  
ST. PAUL, MN 55101-1638

COPY

APR 18 2006

Operations  
Regulatory (MVP-2005-70-JKA)

Ms. Cheryl B. Martin  
U.S. Department of Transportation  
Federal Highway Administration  
Galtier Plaza  
380 Jackson Street, Suite 500  
St. Paul, MN 55101-2904

Dear Ms. Martin:

As a Cooperating Agency for the preparation of an Environmental Impact Statement (EIS) for the proposed project (State Project 5200-03) to improve approximately 22.5 miles of U.S. Highway 14 from Front Street in New Ulm, to County Road 6 near North Mankato, primarily in Nicollet County, Minnesota, the U.S. Army Corps of Engineers (Corps) has reviewed the September 2005 Amended Scoping Decision Document (Document) that has been prepared for the project. Based upon our review, the Corps believes that the range of highway alignment alternatives (three western alignment alternatives and four eastern alignment alternatives) identified in the Document are reasonable and practicable and should be carried forward to the Draft EIS for analysis.

If you have any questions, contact Jon K. Ahlness in our St. Paul office at (651) 290-5381. In any correspondence or inquiries, please refer to the Regulatory number shown above.

Sincerely,

*for* Robert J. Whiting  
Chief, Regulatory Branch

Copy Furnished:

Peter Harff, MnDOT  
Mary Gute, CH2M Hill  
Doug Abere, CH2M Hill





Minnesota Department of Transportation

Office of Environmental Services  
Mail Stop 620  
395 John Ireland Boulevard

Office Tel: (651) 297-8729  
Fax: (651) 282-9834

October 24, 2006

Dennis Gimmestad  
MN State Historic Preservation Office  
Minnesota History Center  
345 Kellogg Blvd. West

Regarding: S.P. 5200-03 (TH 14, Nicollet County)  
Alternative alignments from juncture of CSAH 6 to juncture of TH 15

Dear Mr. Gimmestad:

We have reviewed the above-referenced undertaking pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800), and as per the terms of the Programmatic Agreement (PA) between the FHWA and the Minnesota State Historic Preservation Office (SHPO) (June 2005). The project currently consists of a number of proposed alignment alternatives beginning from the juncture of TH 15 north of New Ulm to the juncture of CSAH 6 in the western part of North Mankato.

Two Pines Resource Group conducted archaeological survey and site evaluations. Their report entitled *Trunk Highway 14 – New Ulm to North Mankato Archaeological Survey, Nicollet County, Minnesota: Phase I Archaeological and Geomorphological Survey and Phase II Archaeological Testing of 21NL58, 21NL59 and 21NL134* (October 2005) is enclosed. In addition, a Phase II evaluation of architectural properties was completed by Gemini Research. Their report entitled *Phase II Evaluation of Historic Structures along T.H. 14 between New Ulm and Mankato, Nicollet County, Minnesota* (May 2006) is also enclosed. The Gemini report followed the Phase I *Cultural Resources Survey for Trunk Highway 14 West Interregional Corridor Alternatives* report completed in May 2004 by BRW, which is also enclosed along with their inventory forms. During consultation with your office and based on the results of the BRW Phase I report, the list of Phase II properties was limited to several farmsteads and barns (see enclosed e-mail of 7/7/2004). Added to that list were two segments of the Winona and St. Peter Railroad, as well as seven stone culverts, a wood trestle bridge, and a plate girder bridge that carried the railroad through the project area. During the early Phase II survey and again with a change in contractors, several more properties were included as part of the area of potential effect (APE) and the Mn/DOT Cultural Resources Unit requested that they also be evaluated. The enclosed report, completed by Gemini Research in 2006, is the final evaluation of all architectural properties considered with the APE.

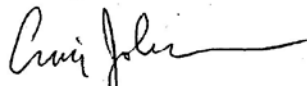


Three previously unidentified archaeological sites (21NL132, 21NL133, 21NL134), along with two previously identified sites (21NL58, 21NL59) were found to be within the defined APE. Evaluations of these sites found that the buried Prairie Archaic component at site 21NL58 is recommended eligible for listing on the National Register of Historic Places (NRHP) under criteria A and C. Site 21NL59 consists of a diffuse, low density artifact scatter lacking diagnostic artifacts surrounding an outcrop of Sioux Quartzite in which are embedded cobbles of flakable stone. The outcrop is referred to as the New Ulm Conglomerate. The artifact scatter is recommended not eligible for the NRHP but the actual outcrop is recommended eligible under criterion A for its role as a lithic quarry site. This conclusion was agreed to at a meeting with Scott Anfinson on 8/17/2005, then with the SHPO office. The remaining sites (21NL132, 21NL133, 21NL134) are recommended not eligible. We concur with these conclusions.

A total of 64 architectural properties were evaluated with 24 recommended eligible to the NRHP while 40 are recommended not eligible. The 24 eligible properties include the following: Johnson Barn (NL-BEL-011), Budde Farmstead (NL-BEL-015), New Ulm Spring R.P.A. (NL-CTT-006), Mueller Farmhouse (NL-CTT-011), Klippstein Barn (NL-CTT-017), Kohn Log Farmhouse (NL-CTT-021), Sommer Barn (NL-CTT-024), Kohn Barn (NL-CTT-025), Heim Farmstead (NL-CTT-026), Zieske Farmhouse and Barn (NL-CTT-028), Neumann Farmstead (NL-CTT-029), Kohn Barn (NL-CTT-033), Studtmann Barn (NL-CTT-047), Meyer Barn (NL-CTT-050), Bode Granary (NL-CTT-051), Seeman Barn (NL-CTT-052), Hintz Farmhouse (NL-CTT-057), Bruns Farmstead (NL-CTT-058), Wellner Farmstead (NL-LFT-008), Bode Farmstead (NL-NCT-008), Bode Barn (NL-NCT-011), Thom Farmstead (NL-NCT-021), Thielbar Barn (NL-NCT-033), and Dahms Barn (NL-NCT-034). We concur with these conclusions.

Until the preferred alternative is selected and more detailed construction plans become available, we cannot make a determination of effects on these two archaeological and 24 architectural properties. Once this information becomes available, we will consult with your office on the effects to these properties. Please review and respond to these conclusions so that the alternative selection can include these properties in consideration of the preferred alternative.

Sincerely,



Craig Johnson  
Archaeologist  
Cultural Resources Unit

cc: Scott Anfinson, State Archaeologist  
Joe Hudak, Mn/DOT CRU  
Mn/DOT CO File  
Mn/DOT CRU Project File  
Peter Harff, Mn/DOT D. 7



MINNESOTA HISTORICAL SOCIETY  
State Historic Preservation Office

December 18, 2006

Mr. Craig Johnson  
Cultural Resources Unit  
MN Dept. of Transportation  
Transportation Building, MS 620  
395 John Ireland Boulevard  
St. Paul, MN 55155-1899

Re: S.P. 5200-03, T.H. 14  
T.H. 14 Alternative alignments from juncture of CSAH 6 to juncture of T.H. 15  
SHPO Number: 2004-2126

Dear Mr. Johnson:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800), and to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

We have reviewed the report of the archaeological investigations, completed by Two Pines, and the report of the history/architecture investigations, completed by Gemini Research, as well as your transmittal letter. We have the following comments:

1. We conclude that site 21NL0058 is eligible to the National Register under criteria A and D, and that site 21NL0059 is eligible to the National Register under criteria A and D.
2. We conclude that sites 21NL0134, 21NL0055, 21NL0132, and 21NL0133 do not meet National Register criteria.
3. Regarding other known sites in the project area, we conclude that 21NL0035 and 21NL0051 merit additional evaluation, that sites 21NL0054, 21NL0056, 21NL0057, and 21NL0125 do not meet National Register criteria, and that site 21NL0064 meets National Register criteria (Phase III completed).
4. We concur with your determination that 24 history/architecture properties meet National Register criteria, as enumerated in your letter and the Gemini report.
5. We feel that the evaluations of segments of the Winona and St. Peter Railroad, and the component culverts, trestles, and bridges merit reconsideration vis-à-vis our previous determination that the entire original railroad line through Minnesota meets National Register criteria. That determination was made on the basis of survey data compiled by the DM&E Railroad. While field inventory was not completed for a few segments (including the segment in this project area), the determination was intended to apply to the entire line, since the overall

345 Kellogg Boulevard West / Saint Paul, Minnesota 55102-1906 / Telephone 651-296-6126



integrity was intact. Therefore, we would recommend that this portion of the Winona and St. Peter Railroad, including the eight individually inventoried structures, be considered part of the eligible line. We recognize that portions of the eligible line will have differing levels of integrity, and the integrity of any portions affected by the highway project will need to be discussed in arriving at an appropriate effect determination and level of mitigation.

6. Except for the ten inventoried properties associated with the Winona and St. Peter Railroad, we concur with your evaluations of the other properties that do not meet National Register criteria.

This is a corridor study. In addition to the areas mentioned for additional investigation, the overall project should be reviewed once again as part of the design phase in order to assess the need for additional survey/evaluation. This assessment should include such areas as borrow pits and house/business relocation sites.

Contact me at 651-259-3456 with questions or concerns.

Sincerely,



Dennis A. Gimmestad  
Government Programs & Compliance Officer

cc: Tom Cinadr, SHPO  
Susan Granger, Gemini  
Michelle Terrell, Two Pines







Minnesota Department of Transportation

Office of Environmental Services  
Mail Stop 620  
395 John Ireland Boulevard

Office Tel: (651) 366-3614  
Fax: (651) 366-3603

June 5, 2007

Dennis Gimmestad  
MN State Historic Preservation Office  
Minnesota History Center  
345 Kellogg Blvd. West

Regarding: S.P. 5200-03 (TH 14, Nicollet County)  
Alternative alignments from juncture of CSAH 6 to juncture of TH 15  
SHPO: 2004-2126

Dear Mr. Gimmestad:

This is a follow-up letter to your response of 12/18/2006 for additional evaluations of sites 21NL35 and 21NL51. Based on the report of the Two Pines Resource Group entitled *Trunk Highway 14 – New Ulm to North Mankato Archaeological Survey, Nicollet County, Minnesota: Phase I Archaeological and Geomorphological Survey and Phase II Archaeological Testing of 21NL58, 21NL59 and 21NL134* (October 2005) and my recent discussions with Michelle Terrell, both sites are outside of the project area of potential effect (APE). Therefore, we feel that no additional evaluation is needed for these two sites. As you requested in a telephone conversation on 2/16/2007, I am enclosing two maps with both sites plotted on them in relation to the APE.

Sincerely,

Craig Johnson  
Archaeologist  
Cultural Resources Unit

cc: Mn/DOT CO File  
Mn/DOT CRU Project File  
Peter Harff, Mn/DOT D. 7





MINNESOTA HISTORICAL SOCIETY

State Historic Preservation Office

July 19, 2007

Mr. Craig Johnson  
Cultural Resources Unit  
MN Dept. of Transportation  
Transportation Building, MS 620  
395 John Ireland Boulevard  
St. Paul, MN 55155-1899

Re: S.P. 5200-03, T.H. 14  
T.H. 14 from New Ulm to Mankato Interregional Corridor Alternatives Study  
Brown and Nicollet Counties  
SHPO Number: 2004-2126

Dear Mr. Johnson:

Thank you for your letter regarding archaeological sites 21NL0035 and 21NL0051. In our letter of 18 December 2006, we recommended that these sites needed further evaluation.

You have indicated that these sites lie outside the area of potential effect. Inasmuch as the current review is only a corridor study, we urge caution for sites in close proximity to the proposed alternate routes.

We look forward to working with you further as the planning for this project proceeds to address the range of issues included in our 18 December 2006 letter. Contact us at 651-259-3456 with questions or concerns.

Sincerely,

Dennis A. Gimmestad  
Government Programs & Compliance Officer

345 Kellogg Boulevard West / Saint Paul, Minnesota 55102-1906 / Telephone 651-296-6126





Minnesota Department of Transportation

395 John Ireland Boulevard  
Saint Paul, Minnesota 55155-1899

May 3, 2010

Ms. Mary Ann Heidemann  
State Historic Preservation Office  
Minnesota Historical Society  
345 Kellogg Blvd. W.  
St. Paul, MN 55101-1906

re: SP 5200-03/TH 14, Mankato to New Ulm, Nicollet County  
SHPO 2004-2126

Dear Ms. Heidemann,

We are providing your office with this information pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act, as amended (36 CFR 800).

Since your December 18, 2006 response to our Phase I and II property evaluations, MnDOT District 7 has added the replacement of bridge 9200 to the scope of the project. We requested that consultants Mead and Hunt, Inc evaluate this bridge for NRHP eligibility. In addition to the change in scope, we consulted with your office about the possible expansion of the APE due to this change. In our discussion with your office on April 20<sup>th</sup> we agreed that the area of potential effect (APE) for this added work is circumscribed by dense riverine woods that obscure the bridge, even in the winter months. Bridge 9200 is also at a lower elevation than the flanking TH 14 (see enclosed images), blocking its view from New Ulm.

Bridge 9200 spans the river, but is connected to four-lane roadways on either end. The far south segment of this tri-part crossing becomes an off/on ramp system and a viaduct over Front Street before transitioning into North 7<sup>th</sup> Street in New Ulm. The north extension carries TH 14 to the intersection with TH 15. The current elevation at the south end of existing bridge 9200 is 810', while the embanked roadway to the south rises to 880' where it passes over Front Street and then gradually descends to connect with North 7<sup>th</sup> Street in New Ulm. At the north end of the bridge, the situation is similar. The bridge is at 810' and climbs slightly higher to about 820' before it meets the intersection of Trunk Highways 14 with TH 15. The current 40' wide bridge will be widened to 101' to widen the bridge from two to four lanes in order to meet the existing four lane roadways on either end. The horizontal alignment will not change, but the vertical alignment may be raised between 2 to 5 feet, depending on DNR needs. It is very unlikely that this raise in the new bridge will have a visual effect on the surrounding viewshed. The proposed bridge will

An equal opportunity employer



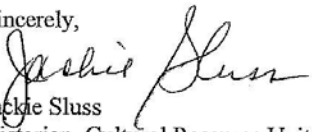
not have a high profile but will be utilitarian in design. Therefore, it is our opinion that the addition of the replacement of bridge 9200 to the scope of work for this project does not result in the need for additional survey.

Bridge 9200 was built in 1964 and carries Trunk Highway 14 across the Minnesota River in New Ulm. Our consultant, Mead and Hunt, Inc., has completed the enclosed individual Phase II bridge evaluation expanding upon the criterion being developed for the State wide post-1956 bridge evaluation study which your office is reviewing. The bridge has been evaluated as not eligible for the listing in the National Register of Historic Places. We concur with that assessment.

We look forward to working with your office to assessing effects on National Register properties on the remaining TH 14 reconstruction alignment, and finding ways to avoid, minimize, or mitigate effects to these properties.

If you have additional questions regarding this project, please contact me at (651) 366-3624.

Sincerely,



Jackie Sluss  
Historian, Cultural Resource Unit  
Office of Environmental Services  
jacqueline.sluss@state.mn.us

cc: MnDOT C O file  
CRU project file ✓  
Joseph Hudak, CRU  
Tony Lesch, D-7







STATE HISTORIC PRESERVATION OFFICE

June 4, 2010

Jackie Sluss, Cultural Resources Unit  
Minnesota Department of Transportation  
395 John Ireland Boulevard  
St. Paul, MN 55102-1903

RE: SP 5200-03; TH 14, Mankato to New Ulm  
New Ulm, Nicollet County  
SHPO Number: 2010-2886 (formerly 2004-2126)

Dear Ms. Sluss:


Thank you for the additional information submitted regarding the project referenced above. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

We note that the replacement of Bridge No. 9200, which carries TH 14 across the Minnesota River and into New Ulm, has been added to this project. After reviewing the Register evaluation information, **we concur with your finding that Bridge No. 9200 is not eligible for the National Register.**

By using Google Earth aerial and ground photography during our meeting on April 20, we determined that the dense river corridor vegetation makes this bridge virtually invisible from other Register-eligible properties in the New Ulm area. Therefore, we concur that the project APE does not need to be expanded beyond the bridge alignment itself, due to potential visual impacts. However, your letter of May 3 does not address the potential impact of the bridge replacement on archaeological sites.

Due to the sensitivity of the river corridor, we ask to review the location of any newly proposed ground disturbance that may be caused by the bridge replacement portion of the project. I realize that bridge designs are not yet available. When the preferred alternative is selected for this project, including both route alignment and bridge design, we look forward to reviewing more detailed construction plans to assist you in determining the effect of this project on cultural resources.

Please contact me at (651) 259-3456 if you have any questions regarding our review of this project.

Sincerely,  
  
Mary Ann Heidemann, Manager  
Government Programs and Compliance

Minnesota Historical Society, 345 Kellogg Boulevard West, Saint Paul, Minnesota 55102  
651-259-3000 • 888-727-8386 • www.mnhs.org





Minnesota Department of Transportation

395 John Ireland Boulevard  
Saint Paul, Minnesota 55155-1899

June 25, 2010

Ms. Mary Ann Heidemann  
State Historic Preservation Office  
Minnesota Historical Society  
345 Kellogg Blvd. W.  
St. Paul, MN 55101-1906

re: SP 5200-03/ TH 14, New Ulm to Mankato, Nicollet County, assessment of effects

Dear Ms. Heidemann,

We are providing your office with this information pursuant to our FHWA-delegated responsibilities for compliance with Section 106 of the National Historic Preservation Act of 1966 as amended.

On December 18, 2008 and January 8, 2008 your office addressed the eligibility of properties along the TH 14 New Ulm to Mankato corridor. At this point in the review, the only remaining unresolved determination of eligibility is the Winona and St. Peter Railroad (Chicago Northwestern). Your December letter indicated that your office believes that the Winona and St. Peter Railway is an eligible linear district across Minnesota including sections of variable integrity. The Winona and St. Peter Railway was incorporated in 1862 and reached the APE in Nicollet County in 1871 (heading west). In 1999-2000, Architectural and Historical Research (AHR) and Hess Roise were hired to evaluate the line in Minnesota for the Surface and Transportation Board. That study found the entire line, from Winona to Watertown, South Dakota, to be eligible for the National Register. It is significant under NRHP Criterion A as a line important to the early settlement of Minnesota and in the development of the early agriculture production and transportation system. In 2006, SHPO pointed out that the line in Nicollet County had erroneously been left out of the 2000 survey because it was not being used by the current operators. During the current MnDOT study (Gemini Research, 2008), two segments of the railroad were studied for their integrity: Nicollet Township and Courtland Township. That report concluded that neither segment has integrity sufficient to be contributing to the larger eligible line. The report indicates that evidence of the railroad bed is visible in the APE only in short and visually noncontiguous segments of 1/3 mile or less across a 13 mile route walked by Gemini in Courtland and Nicollet Townships. The Gemini report also completed individual inventory forms for five remaining stone box culverts, one stone arch culvert, one timber trestle and one plate girder viaduct that carried the Winona and St. Peter across those areas where there is no above-ground integrity. The previous 1999-2000 survey identified 178 stone box culverts, 17 stone arch culverts, 19 plate girder viaducts, and 108 timber trestles outside Nicollet County. One area of track, about 1/3 mile in length, from the Minnesota River to the New Ulm Quartzite Quarry, remains in use and is the longest intact segment in the survey area.

The 2007 Minnesota Statewide Historic Railroads MPDF completed for MnDOT and sent to your office, discusses two points important to the evaluation of the Winona and St. Peter Line under *Contributing vs. Non-Contributing Segments* and *District Boundaries* (pp. 201-203): "The length of a railroad corridor historic district ... will consist of contributing segments and may include non-contributing segments ... Provided that the non-contributing segment of the segment of a railroad corridor historic district retains

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some visible expression on the landscape of the former railroad roadway, the segment is within the district boundaries, and the district as a whole may retain integrity” (page 202). Gemini’s report indicates that the physical integrity of the roadway in Courtland and Nicollet Counties is very poor and leaves nearly no visible expression of the 13 mile former railroad roadway on the landscape. However, on page 203 of Section F the discussion states “If a railroad corridor segment has completely lost its integrity, such that there is no visible expression on the landscape, corridor segments on either side of that segment have also lost their ability to convey the operation of the whole corridor as a single transportation corridor.” The discussion goes on to say that “If a railroad corridor segment has completely lost its integrity, such that there is no visible expression on the landscape, corridor segments on either side of that segment have also lost their ability to convey the operation of the whole corridor as a transportation corridor.” This would nullify the previous evaluation of the entire line as eligible. Given the period of construction of the Winona and St. Peter line and its importance to the development of a large swath of the state westward from the river town of Winona, it would seem a shame to find this early state-wide line ineligible because of a 13 mile segment with poor integrity. In addition, there are below-surface structures that mark the line where it has been erased from the surface landscape by recent cultivation or building construction. The structures are not visible from the surface, but they are visible from the ground and many of the supporting structures reflect a quality of materials and craftsmanship that have endured to the present. It is our opinion that the section of the line in question, as defined by NL-NCT-001 in Nicollet Township, and NL-CTT-056 in Courtland Township, is best classified as contributing.

The following list is an assessment of effects for each eligible property in APE:

#### HISTORIC

Winona and St. Peter Railroad Segments AE  
 NL-NCT-001 in Nicollet Township, and NL-CTT-056 in Courtland Township

Three of the eight structures associated with the line in the project APE, stone box culverts, NL-CTT-106, 107 and 108 will be demolished by the expansion of the westbound lanes of TH 14 to the north, opposite the eligible Hintz Farmhouse. Stone culverts are the most common (178) type of support structure on the line and would not be considered individually eligible under criteria A or C. The demise of these three culverts is an adverse effect to the already weakened link in the line.

NL-LFT-008 Wellner Farmhouse NE  
 There is no taking of property from this farm. The farm yard is 1250 ‘east of MN 15. Re-configured interchange will dovetail into MN 15 on same alignment.

NL-CTT-006 New Ulm Spring AE  
 The project will use the existing shoulder and an additional 8 feet for separate access to site from west-bound lanes. This brings the parking area to about 30 feet total. East bound travelers would make a left turn .8 miles south of site and then travel west bound to site. Then .7 miles west to turn left and continue east bound. This area is no longer used. The spring is contaminated and capped. There are ruins of stone three fireplaces, steps, and stone benches in the overgrown area behind the wall that were part of the original construction. The original island that once separated the highway from the parking area is now gone.

NL-CTT-011 Mueller Farmhouse NAE  
 This is no longer a functioning farm. House sits 650 feet from top of bluff and the bluff area is densely wooded. The TH 14 preferred corridor is at the bottom of the bluff and will take 50 feet for road expansion. This will reduce the distance to the bluff from the house to 600 feet.



NL-CTT-017 Klippstein Barn NAE  
No taking of property. Barn is located 2000' from preferred alignment.

NL-CTT-021 Kohn Log House NAE  
House setting protected by topography and shielded by trees. Located in modern residential area.

NL-CTT-024 Sommer Barn NE  
The preferred alternative is 4250 feet south of this property.

NL-CTT-025 Kohn Barn AE  
Expanded right-of-way will come within 115 feet of the barn and the same of the house. A clay quarry has recently taken about 40 acres from the south end of the 110 acre property. The proximity of this property to the Heim farm (below) is problematic to the realignment of the road.

NL-CTT-026 Heim Farmstead AE  
The preferred 4-lane will move farther south in order to avoid the farm buildings (away from the farm buildings) than existing and the truncated current alignment will be used for the driveway. Four acres will be taken from the property south of preferred alignment. Of that, 1.5 are in the historic acreage. A clay quarry has recently mined about 16 of the total 250 acres now farmed, none located in the historic fields.

NL-CTT-028 Zeiske House and Barn NE  
No property taking. This property is 2100 feet from the preferred alignment.

NL-CTT-029 Neumann Farmstead NE  
No acreage taken. This property is 1900' from the preferred alignment.

NL-CTT-033 Kohn Barn AE  
Expansion of existing TH 14 will take about 120 feet from front yard and remove some trees. Backslope will be within 120 feet of house and 390 feet from eligible barn.

NL-CTT-047 Studtmann Barn NE  
No taking of property. Farmstead is 1 mile north of preferred alignment.

NL-CTT-050 Meyer Barn NE  
No taking of property. Farmstead is ¼ mile from preferred alignment.

NL-CTT-051 Bode Granary NAE  
No acreage taken. Farmstead is setback 1500' from existing and 1/2 mile from preferred.

NL-CTT-052 Seeman Barn NAE  
Farmstead is ¼ mile from preferred alignment. Taking 2 acres along from a total 140 acres farmed.

NL-CTT-057 Hintz Farmhouse NAE  
Expansion of existing TH 14 will move the roadway 50 feet north, away from the Hintz house. The house will be a total of 200 feet from the roadway. The existing pavement will be removed. The new alignment will take 8 acres of 166 acres farmed north of the highway. They will retain full or right-out right-in access to be determined at time of construction.

NL-CTT-058            Bruns Farmstead            NAE  
Expansion of existing TH 14 will take 100' or 4 acres of new right of way on the north side of the preferred alignment. This farm contains a total of 186 acres. Farmstead distance from TH 14 will be reduced from 600 to 500 feet. County Road 11 will still cross the expanded corridor to access their acreage on both sides.

NL-NCT-008            Bode Farmstead            NE  
No taking of property. The farm is one mile south of preferred corridor.

NL-NCT-011            Bode Barn            NE  
No taking of land. Farmstead is 1.25 miles south of preferred corridor and is located on Co. Rd. 25.

NL-NCT-021            Thom Farmstead            NAE  
This farmstead is 1.25 miles south of preferred alignment and will involve no taking of land. This property fronts on Co. Rd. 25.

NL-NCT-033            Theilbar Barn            NAE  
No acreage will be taken from this property. The property will have view of new interchange 900' south of farmyard. This farm is already located in semi-urbanized area.

NL-NCT-034            Dahms Barn            NAE  
Proposed new corridor is 1650' south of farm yard. About 1.4 acres will be taken from far southwest corner of 250 acres farmed.

NL-BEL-011            Johnson Barn            AE  
The preferred alignment will construct the new west bound lanes 150 feet into the farmstead yard and take an existing non-historic out building. Barn will remain 250 feet from new road surface and the house will be about 125 feet from the new road surface.

NL-BEL-015            Budde Farmstead            NAE  
No taking of acreage. Road will dovetail into the existing road at SW corner of this property which is located at the eastern terminus of the project.

#### ARCHAEOLOGICAL

21NL58            Altman Site            AE

Road construction on the south side of the road will encroach into the site an additional 50 to 70 feet (see enclosed site photo). Also, there could be intact portions of the site underneath the present road that are affected by construction. Construction will have an adverse effect on the site south of the road and possibly to any portion of the site below the road.

21NL 59            New Ulm Conglomerate            NAE

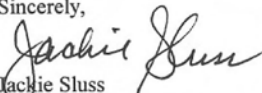
The New Ulm Conglomerate site (21NL15) will be avoided by the project (enclosed aerial photo). The largest portion of the site is west of TH 14; a small segment is located east of the highway. Construction limits on the west side have been pulled in to avoid both the outcrop and the lithic scatter (enclosed Figure 26 from 2005 Two Pines report) by shifting the intersection and road to the east. Similarly, the construction limits that are about 90 – 100 feet east of the centerline of present TH 14 avoids the site also



by pulling them in. Note that the 1988-1989 MTHARS survey defined the site limits on the east side of TH 14 based not only on the presence of artifacts but also on the landform which extends to the east against the bluff edge (enclosed highlighted pages of 2005 report). Two Pines shovel testing about 120 – 160 feet east of the highway centerline recovered very few, if any artifacts. Two Pines did not modify the original site limits even though no artifacts were recovered from excavations in the southeast portion of the site. The 1988-1989 MTHARS shovel testing and test units east of TH 14 focused in the area just south of 446<sup>th</sup> Street (448<sup>th</sup> Street in Two Pines report) 135 – 150 east of the present TH 14 centerline, outside the proposed construction limits. Because no artifacts or rock outcrops are present within the proposed construction limits, there are no effects to this site.

We look forward to consultation with your office for the completion of a Memorandum of Agreement for the above adverse effects and any additional effects associated with the yet unknown results of the archaeological survey at the bridge 9200 replacement site. If you have additional questions regarding this project, please contact me at (651) 366-3624.

Sincerely,

  
Jackie Sluss  
Historian, Cultural Resource Unit  
Office of Environmental Services

cc: MnDOT C O file  
CRU project file  
Joseph Hudak, CRU  
Peter Harff, District 7, Mankato





STATE HISTORIC PRESERVATION OFFICE

July 29, 2010

Jackie Sluss, Cultural Resources Unit  
Minnesota Department of Transportation  
Transportation Building, MS620  
395 John Ireland Boulevard  
St. Paul, MN 55102-1903

RE: SP 5200-03; TH 14, Mankato to New Ulm  
New Ulm, Nicollet County  
SHPO Number: 2010-2886 (formerly 2004-2126)

Dear Ms. Sluss:

Thank you for the additional information you submitted regarding the above referenced project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

We concur that the two Winona and St. Peter Railroad Segments (NL-NCT-001 & NL-CTT-056) are contributing to the overall Winona and St. Peter Railway, which has been determined eligible for the National Register of Historic Places.

We also concur with your assessment of **Adverse Effect** for the following eligible properties:

Winona and St. Peter Railroad Segments (NL-NCT-001 & NL-CTT-056)

New Ulm Spring (NL-CTT-006)

Kohn Barn (NL-CTT-025)

Heim Farmstead (NL-CTT-026)

Kohn Barn (NL-CTT-033)

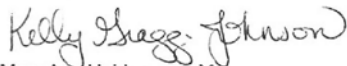
Johnson Barn (NL-BEL-011)

Altman Site (21NL58)

We look forward to further consultation with your office in executing a Memorandum of Agreement for the above adverse effects and any additional effects associated with the yet unknown results of the archaeological survey for the replacement of Bridge No. 9200.

Please contact the Compliance Section at (651) 259-3455 if you have any questions regarding our review of this project.

Sincerely,

  
Mary Ann Heidemann, Manager  
Government Programs and Compliance

Minnesota Historical Society, 345 Kellogg Boulevard West, Saint Paul, Minnesota 55102  
651-259-3000 • 888-727-8386 • www.mnhs.org





STATE HISTORIC PRESERVATION OFFICE

December 16, 2010

Craig Johnson, Cultural Resources Unit  
Minnesota Department of Transportation  
Transportation Building, MS620  
395 John Ireland Boulevard  
St. Paul, MN 55155

RE: SP 5200-03; TH 14, Mankato to New Ulm  
Nicollet County  
SHPO Number: 2010-2886 (formerly 2004-2126)

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Dear Mr. Johnson:

Thank you for the additional information you submitted regarding the Phase I Archaeological Investigation conducted for the above referenced project. It has been reviewed pursuant to the responsibilities given the State Historic Preservation Officer by the National Historic Preservation Act of 1966 and the Procedures of the Advisory Council on Historic Preservation (36CFR800).

Based on the information submitted, we concur that no archaeological sites listed in or eligible for listing in the National Register of Historic Places will be affected by this project.

Now we can proceed with developing a Memorandum of Agreement to resolve the adverse effects previously identified for above-ground historic properties associated with this project.

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If you have not already done so, please notify the Advisory Council of the adverse effects, to determine if they would like to participate directly in further consultation.

We look forward to working with you to complete the Sec. 106 review for this project. Please contact me at (651) 259-3456 if you have any questions regarding our review.

Sincerely,

Mary Ann Heidemann, Manager  
Government Programs and Compliance



---

**From:** Bob Kaul [mailto:Bob.Kaul@dnr.state.mn.us]

**Sent:** Monday, July 09, 2007 8:26 AM

**To:** Olson, Jeff/MSP

**Subject:** Re: US 14 Improvements, Draft EIS DNR Trails & Waterways Coord., Minnesota River (Canoe and Boating Riv

Jeff,

As per your notes below and information provided on the attached map, it appears that the project will not adversely impact the boating facilities on the Minnesota River. If there is construction taking place outside of the Co. Rd. #37 ROW adjacent to Eckstein Landing, there may be easements that will need to be obtained from the DNR. Thanks for the opportunity to review this project. We will be willing to provide further review as the project progresses .....BK

>>> <Jeff.Olson@CH2M.com> 7/2/2007 9:34 AM >>>

Hello Bob,

It was good talking with you this morning. Per our phone conversation, attached is a drawing showing existing roads, proposed improvements, aerial photography, and other features in the vicinity of the US bridge to New Ulm, and in the vicinity of the Hwy 37 Eckstein landing. The US 14 project area extends from New Ulm to west of North Mankato - however, the only area close to the Minnesota River is depicted on the attached figure.

As I mentioned, design on the US 14 bridge to New Ulm is still very conceptual, but we do know that the structural beams will be at the same elevation or slightly higher than what is on the current bridge. And we do know that the bridge will be replaced in the same location as the current bridge. The boat landing operated by the City of New Ulm (Minnecon Park) will not be affected by the proposed improvements.

As part of the improvements to US 14, its intersection with Hwy 37 will also be improved. The improvements to Hwy 37 may introduce temporary construction-related inconveniences to those using the Eckstein Landing. However, the end result will be an improved entrance to and exit from the Landing.

When you have had time to digest this information - could you send me an e-mail as to whether:

- 1) There is no potential for adverse effect concerning the status of the river as a Minnesota Canoe and Boating River, or
- 2) There is a reasonable potential to adversely affect concerning the status of the river as a Minnesota Canoe and Boating River.

Your e-mail will become part of the official agency coordination associated with this project.

We really appreciate your assistance!

Best Regards,

**Jeffrey W. Olson**

Wetland Scientist/ Botanist/ Plant Ecologist

CH2M HILL  
1295 Northland Drive  
Suite 200  
Mendota Heights, MN 55120

phone: 651 688 8100 Ext #48516  
FAX: 414 454 8828



APPENDIX A

## **Final Section 4(f) Evaluation**

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# Appendix A

## Final Section 4(f) Evaluation

US 14 Reconstruction

From Front Street in New Ulm, MN to County Road 6 near North Mankato, MN

Nicollet and Brown Counties, Minnesota

Minnesota State Project Number: 5200-03

The Proposed Action is the improvement of a 22.5 mile segment of the US 14 corridor from Front Street in New Ulm, MN to County Road (CR) 6 near North Mankato, MN. The Preferred Alternative consists of construction of a four-lane divided highway on the existing alignment except for bypasses of the cities of Courtland and Nicollet. The Preferred Alternative and reasons for its selection are documented in the Final Environmental Impact Statement while this Final Section 4(f) Evaluation focuses on the properties eligible for protection under Section 4(f).

This document is available in alternative formats to individuals with disabilities by calling the Minnesota Relay Service at 1-800-627-3529.



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# I. Proposed Action

## A. Introduction and Purpose of Section 4(f) Evaluation

The Minnesota Department of Transportation (MnDOT) and the Federal Highway Administration (FHWA) have prepared a Final Environmental Impact Statement (EIS) to address the project planning and decision-making process for proposed improvements to US 14 from New Ulm to North Mankato and to describe the environmental impacts anticipated to result from the construction and operation of the proposed action. The project is located in Brown and Nicollet Counties in south-central Minnesota (see Figure F-A-1). The proposed project extends from Front Street in New Ulm to County Road (CR) 6 near North Mankato. The Build Alternatives subject to detailed study in the Draft and Final EIS (DEIS and FEIS) provided for construction of a four-lane divided highway, using both existing and/or new alignment, meeting standards for a rural expressway with a 70-mph design speed and controlled access.

Following the DEIS and Draft Section 4(f) Evaluation, MnDOT and FHWA held a Public Hearing and received a large number of comments from the public and agencies about the project. Following this, MnDOT and FHWA selected a Preferred Alternative from among the alternatives and have completed the FEIS to which this Final Section 4(f) Evaluation is appended.

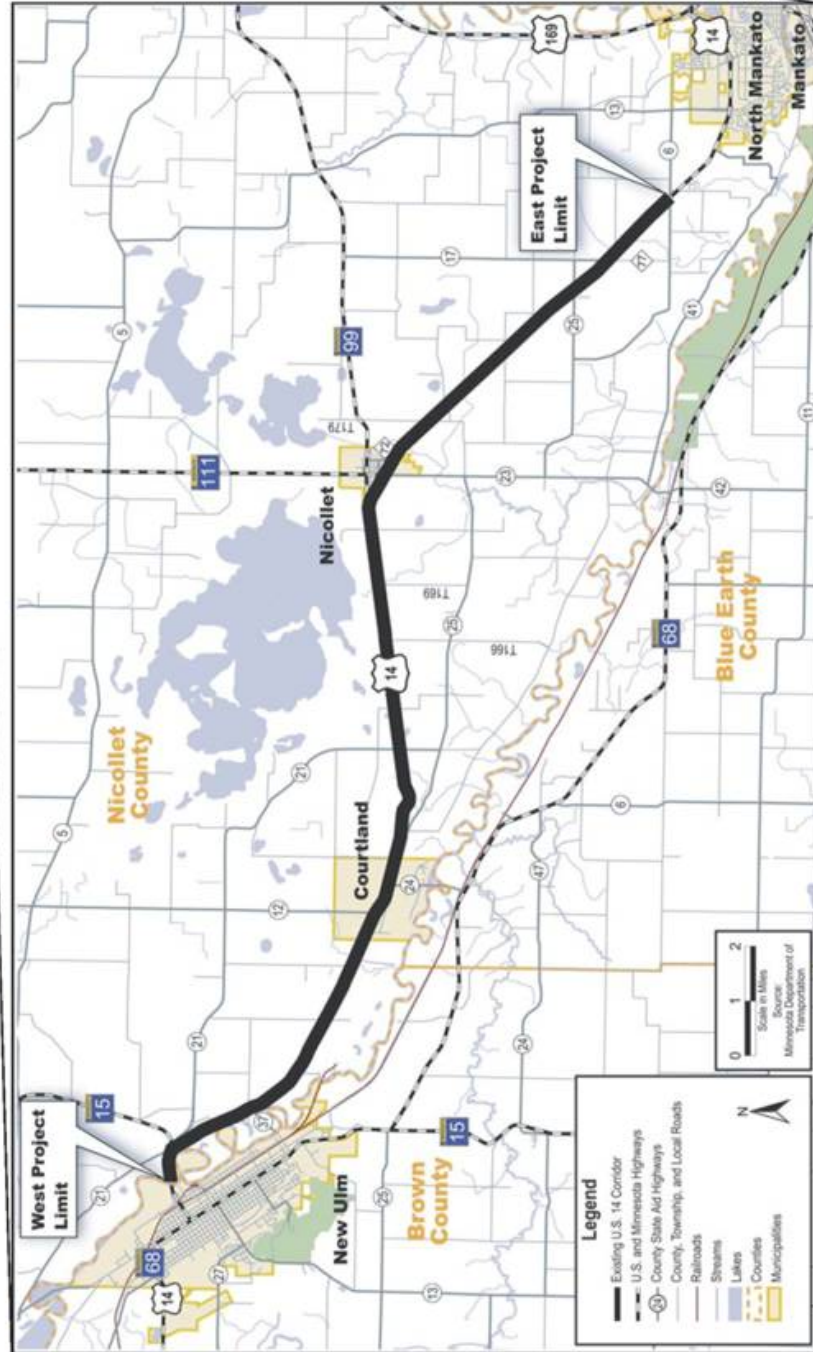
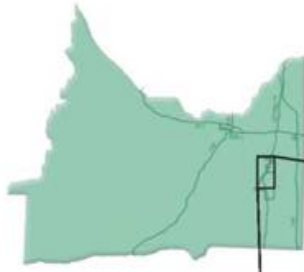
This Final Section 4 (f) Evaluation addresses the impacts of the highway improvement alternatives on properties eligible for review under Section 4(f) of the 1966 Department of Transportation Act (now codified at 49 USC 303 and 23 USC 138). This legislation provides protection from conversion to a transportation use for publicly owned parks, recreation areas, historic sites (public or private), wildlife and waterfowl refuges. The FHWA may not approve the use of land from a significant publicly owned park, recreation area, or wildlife and waterfowl refuge, or any significant historic site unless a determination is made that:

- There is no feasible and prudent alternative to the use of land from the property; and
- The action includes all possible planning to minimize harm to the property resulting from such use (23 CFR 774.17).

Section 4(f) requires that a rigorous analysis must be completed prior to the use of a publicly owned park, recreation area, historic site, wildlife or waterfowl refuge for highway purposes.<sup>1</sup> Determinations regarding Section 4(f) eligibility and potential Section 4(f) use are summarized in Sections 3.13 and 3.14 of the FEIS. Based on the inventory and impact assessment described in the DEIS and Draft Section 4(f) Evaluation, and further developed during the FEIS process, design modifications have been developed to avoid the use of most Section 4(f) properties and to minimize the Section 4(f) resources that cannot be avoided.

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<sup>1</sup> Section 4(f) "use" is strictly defined under FHWA guidelines. A 4(f) use includes acquisition, temporary or permanent occupancy, or proximity impacts that result in substantial impairment of the purposes for which the 4(f) property exists.



US 14 Final EIS  
 New Ulm to North Mankato

Exhibit F-A-1  
 Study Area Map

This Final Section 4(f) Evaluation is required because the Preferred Alternative will result in some impacts, or “use” of Section 4(f) property. The purpose of this Evaluation is to provide the information required by the Secretary of Transportation to make decisions regarding the use of properties protected by Section 4(f) legislation. Before FHWA can approve any action which would use a Section 4(f) property it must determine that alternatives which avoid the use of that property are not feasible and prudent. Therefore, this Final Section 4(f) Evaluation includes summaries of the project Purpose and Need and Alternatives Considered during the extensive environmental study process. A more complete description of Purpose and Need and Alternatives Considered is contained within the FEIS, which is hereby incorporated by reference. Where unavoidable Section 4(f) uses result from a project, it is further necessary to show that the project includes all possible planning to minimize harm to the resources.

Additional protection is provided for outdoor recreational lands under the Section 6(f) legislation where Land and Water Conservation (LAWCON) funds were used for the planning, acquisition or development of the property. These properties may be converted to a non-outdoor recreational use only if replacement land of at least the same fair market value and reasonably equivalent usefulness and location is provided. During the EIS process, staff investigated whether properties under Section 6(f) of the Land and Water Conservation Act may be affected by any project alternatives. One resource, Minnecon Park in New Ulm, was considered eligible under Section 6(f), but was not impacted by any of the proposed alternatives. Therefore, Section 6(f) is not further considered in this document.

#### A Note to the Reader Regarding Terminology

As indicated above, Section 4(f) applies to a variety of property types, including historic properties and archaeological sites. The “use” of such properties is regulated under the provisions of Section 4(f). Historic and Archaeological properties are also provided protection under Section 106 of the National Historic Preservation Act. These laws are different, and although in some instances they apply to the same property, they have different processes and often employ different terminology. In addition to a “use” under Section 4(f), the project may have an “effect” on certain properties under Section 106 of the National Historic Preservation Act. It is possible for a NRHP eligible property to experience an “Adverse Effect” under Section 106, even though it is not “used” under Section 4(f). Historic properties which are not “used” under Section 4(f) are not discussed in any detail in this Final Section 4(f) Evaluation, even though these properties may experience an “Adverse Effect” under Section 106. Details regarding the effects on such properties are fully discussed in Section 3.13 of the FEIS.<sup>2</sup>

## B. Project Description

The DEIS and FEIS considered improvements proposed to a 22.5 mile section of US 14 in southwestern Minnesota (see Figure F-A-1).

This Section describes No-Build Alternative and contains a brief description of each Build Alternative considered in the DEIS and FEIS.

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<sup>2</sup> The process of evaluating Section 4(f) properties first includes consideration of avoidance. In most cases for this project, Section 4(f) use for eligible properties is avoided.

## 1. No Build Alternative

The No Build Alternative served as a baseline for comparison to the Build Alternatives. Under the No-Build Alternative, improvements would have been limited to routine maintenance including normal pavement maintenance, spot traffic operational improvements, and minor safety improvements. US 14 would have retained its current physical characteristics, curvature, and typical section, i.e., pavement and shoulder width.

## 2. Build Alternatives

The Build Alternatives evaluated in the DEIS and as well as the Preferred Alternative described in the FEIS consisted of corridor locations, or alignments, that were developed and refined through an extensive study process. The Build Alternatives in the West and East Study Sections are listed below. Figure F-A-2 shows the alternatives and identifies the potentially unavoidable Section 4(f) properties.

### Alternatives from New Ulm to Courtland (West Study Section)

The West Study Section included three Build Alternatives, all of which included replacement or expansion of the US 14 Minnesota River Bridge from two to four lanes.

- Alternative W1 Existing US 14/Minnesota River Alignment
- Alternative W2 Top-of-Bluff Alignment
- Alternative W3 River/Bluff Combination Alignment

### Alternatives from Courtland to Nicollet (East Study Section)

The East Study Section included four Build Alternatives, all of which included a bypass route north of Courtland and a bypass route south of Nicollet. Both bypasses included possible interchanges at various locations.

- Alternative E1 Near South Bypass Alignment
- Alternative E2 South Bypass – South of Swan Lake WMA Alignment
- Alternative E3 South Bypass – Section Line Alignment
- Alternative E4 Far South Bypass

## 3. Preferred Alternative

The Preferred Alternative includes expanding US 14 from two to four lanes generally adjacent to in-place US 14. The exceptions to the use of the in-place alignment are bypasses at the cities of Courtland and Nicollet. Four interchanges are proposed at MN 15, CR 37, Courtland, and Nicollet. Local roads will be realigned to correct skewed intersections and private accesses will be consolidated and, where possible, realigned to local roads. The Minnesota River Bridge at New Ulm will be replaced in its current location.

## C. Purpose of Project

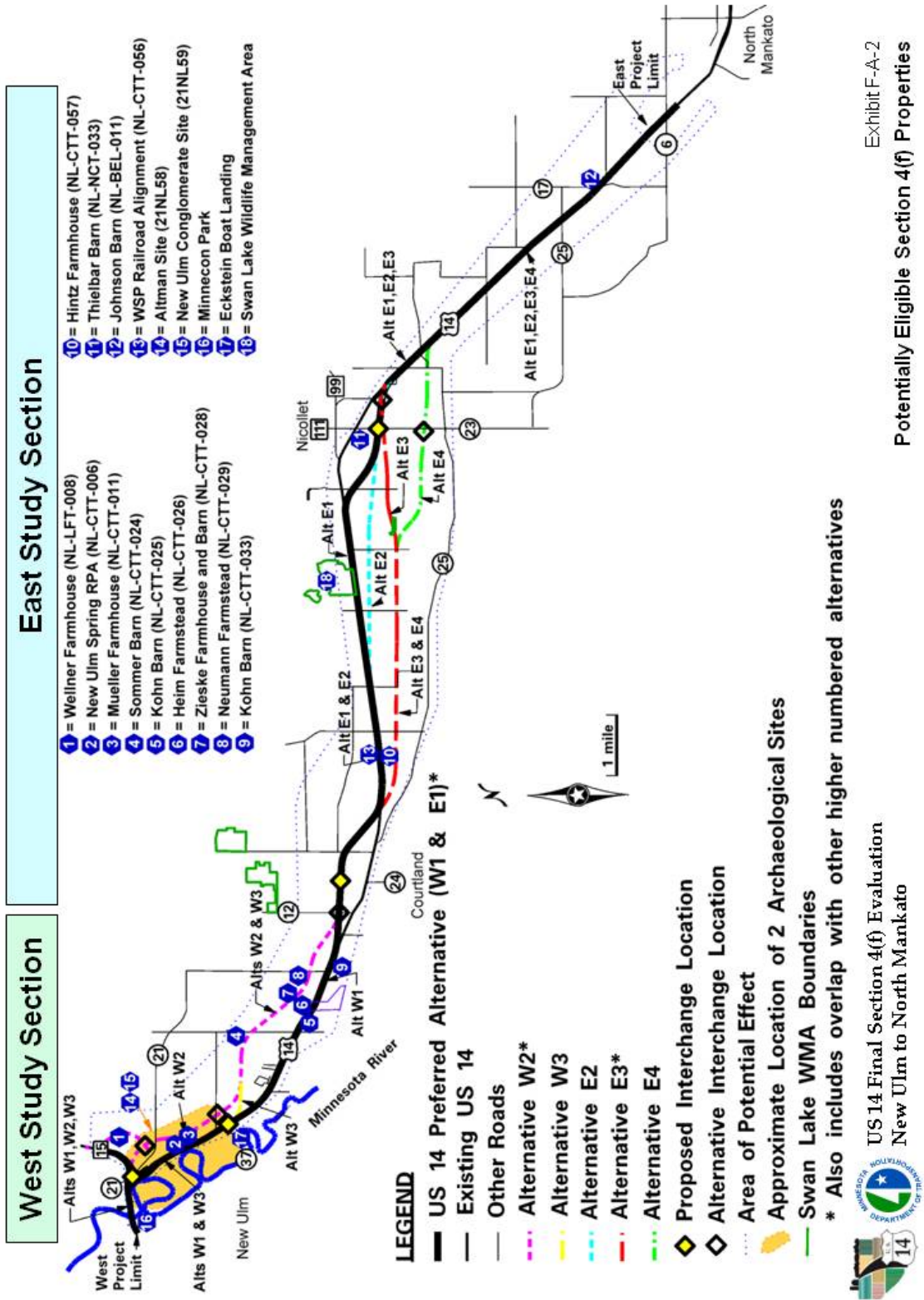
As discussed in detail in the DEIS and FEIS, the purpose of the proposed action for US 14 is based on performance objectives for a Minnesota Interregional Corridor (IRC), while seeking compatibility with local communities and the area's natural resources (see Section 1 of the FEIS). The proposed project will:

- Improve safety for travelers on US 14;
- Maintain or improve travel conditions to meet IRC performance targets;
- Provide for system continuity to the west end of the US 14 IRC;
- Enhance US 14's function as an interregional trade corridor; and
- Fit the context of the area's affected communities, resources, and land uses and transportation needs. The project will be sensitive to the context of the Cities of New Ulm, Courtland, and Nicollet, area farms, neighborhoods, businesses, topography/bluffs, and other social and natural resources.

## D. Need for Project

Improvements to US 14 are needed to address a variety of traffic operational issues that have long been identified along the highway. These include:

- Safety – Crash rates often exceed statewide averages in this corridor, including a crash severity rate at the MN 15/CR 21 intersection (near New Ulm) that is much higher than the average for rural intersections.
- Capacity – A forecasted increase in traffic congestion resulting from increasing traffic volumes, a high percentage of trucks, and limited passing opportunities that will have a continuing adverse impact on the communities of Courtland and Nicollet.
- Highway and Bridge Design – the present two-lane highway design increases collision risk. This is due to current vertical and horizontal geometry, which includes skewed intersections, limited sight distances, and horizontal curves, and a high number of accesses per mile. The existing two-lane Minnesota River Bridge is presently rated as “structurally deficient” and “functionally obsolete.” By the time the improvements are implemented, the bridge will be more than 50 years old and approaching the end of its functional life.



- 1 = Wellner Farmhouse (NL-LFT-008)
- 2 = New Ulm Spring RPA (NL-CTT-006)
- 3 = Mueller Farmhouse (NL-CTT-011)
- 4 = Sommer Barn (NL-CTT-024)
- 5 = Kohn Barn (NL-CTT-025)
- 6 = Heim Farmstead (NL-CTT-026)
- 7 = Zieske Farmhouse and Barn (NL-CTT-028)
- 8 = Neumann Farmstead (NL-CTT-029)
- 9 = Kohn Barn (NL-CTT-033)
- 10 = Hintz Farmhouse (NL-CTT-057)
- 11 = Thielbar Barn (NL-NCT-033)
- 12 = Johnson Barn (NL-BEL-011)
- 13 = WSP Railroad Alignment (NL-CTT-056)
- 14 = Altman Site (21NL58)
- 15 = New Ulm Conglomerate Site (21NL59)
- 16 = Minnecon Park
- 17 = Eckstein Boat Landing
- 18 = Swan Lake Wildlife Management Area

Exhibit F-A-2  
Potentially Eligible Section 4(f) Properties



## II. Potential Section 4(f) Resources in the Project Area

The project area has a rich history of agricultural and habitat preservation land uses, and contains several properties normally subject to consideration under Section 4(f). During the EIS process, a survey was completed of all potential properties protected by Section 4(f). This included surveys of archaeological sites and historic structures within an area based on the alternatives described above. The following studies were completed to determine whether resources within the Area of Potential Effect were eligible for the National Register of Historic Places (NRHP):

- *Phase I Cultural Resource Survey (CRS) for Trunk Highway 14 West Interregional Corridor Alternative Study – SP 5200-03 (May 2004)*
- *Phase I Archaeological and Geomorphological Survey and Phase II Archaeological Testing of 21NL58, 21NL59 and 21NL134 (October 2005)*
- *Phase II Evaluation of Historic Structures Along TH 14 Between New Ulm and Mankato, Nicollet County, Minnesota (May 15, 2006)*
- *Phase II National Register Evaluation, Bridge 9200, Brown County (April 2010)*
- *Phase I Archaeological Investigation for the Bridge 9200 Replacement Project, Courtland and New Ulm Townships, Nicollet and Brown Counties, MN (November 2010)*

This work recommended 24 historic structures and two archaeological sites within the Area of Potential Effect as eligible for the NRHP (see Table 3-21 in Section 3.13 of the FEIS for a list of the twenty-four properties). Subsequently, the WSP Railroad Corridor was determined to be an eligible resource.

These surveys were reviewed to identify properties with potential to result in a Section 4(f) use. As described in Table F-A-1 and Figure F-A-2, thirteen historic and two archaeological sites were identified as having potential to result in a Section 4(f) use from various Build Alternatives.

Table F-A-1 also identifies three public land resources and their eligibility for Section 4(f) and Section 6(f) consideration. Minnecon Park in New Ulm is the only Section 6(f) resource located within the study area, but was not affected by any project alternatives. The Swan Lake WMA as a whole has been determined not to be a Section 4(f) property. Certain sites within the WMA (e.g. a boat landing) would be eligible 4(f) properties. None of the Build Alternatives considered, or the Preferred Alternative, use WMA land subject to 4(f) provisions, nor otherwise affect any of the landings. Although determined not to be a Section 4(f) property, MnDOT and FHWA acknowledge the Swan Lake WMA as an important resource. The WMA has been evaluated in a manner similar to a Section 4(f) analysis. Measures have been considered to avoid the WMA as well as to minimize any unavoidable impacts. Impacts to the WMA will be mitigated. MnDOT anticipates working closely with the DNR to not only mitigate impacts, but also to explore enhancements to the overall resource. See Section 3.14 of the FEIS for further discussion of the Swan Lake WMA.

Table F-A-1 also describes Section 4(f) properties which were avoided. As noted in the right-hand column, there were five eligible Section 4(f) properties that were completely avoided by selection of the Preferred Alternative; eleven properties potentially could have been affected but have been avoided by the Preferred Alternative; and two properties are subject to a Section 4(f) “use” as a result of the Preferred Alternative. Properties that were avoided by selection of the Preferred Alternative are discussed in more detail in Sections 3.13 and 3.14 of the FEIS; those that could have had or do have a Section 4(f) “use” are described below.

TABLE F-A-1

Summary Inventory of Section 4(f) Properties within US 14 Study Area Including Section 4(f) Use

| Resource Name                                        | Brief Resource Description                                                                                                | Section 4(f) Use                                                                                                                                                                              |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Historic Architectural Properties</b>             |                                                                                                                           |                                                                                                                                                                                               |
| 1. Wellner Farmhouse (NL-LFT-008)                    | Farmhouse built around 1895.                                                                                              | No—Avoided by use of W1                                                                                                                                                                       |
| 2. New Ulm Spring Roadside Parking Area (NL-CTT-006) | Former wayside rest area built in 1939 defined by a stone wall that is within MnDOT’s current US 14 right-of-way.         | No – Although there is a Section 106 Adverse Effect, there is no “use” because the site is already owned by MnDOT and none of the functions of the site will be affected.                     |
| 3. Mueller Farmhouse (NL-CTT-011)                    | A well-preserved farmhouse built in the early 1900s located on top of the bluffs, above existing US 14.                   | No— Avoided by use of W1                                                                                                                                                                      |
| 4. Sommer Barn (NL-CTT-024)*                         | Barn and clay tile silo built around 1890.                                                                                | No— Avoided by use of W1                                                                                                                                                                      |
| 5. Kohn Barn* (NL-CTT-025)                           | A raised/basement barn and attached silo built in the 1890s with characteristics of traditional German timber framing.    | No – the proposed right of way does not encroach on the boundaries of the historic site. The proximity of the road results in a Section 106 Adverse Effect, but there is no constructive use. |
| 6. Heim Farmstead* (NL-CTT-026)                      | Historic barn and adjacent lands (85.5 acres) convey associations with farming in the region dating to the late 1800s.    | Yes – the barn is avoided, but the highway that divides the property will be widened                                                                                                          |
| 7. Zieske Farmhouse and Barn* (NL-CTT-028)           | Farmhouse and barn structures are individually eligible for the National Register.                                        | No— Avoided by use of W1                                                                                                                                                                      |
| 8. Neumann Farmstead* (NL-CTT-029)                   | Historic Structure built around 1900 and adjacent lands (11.6 acres) convey associations with traditional German farming. | No— Avoided by use of W1                                                                                                                                                                      |
| 9. Kohn Barn (NL-CTT-033)*                           | Raised/basement barn and attached silo built around 1895                                                                  | No – the proposed right of way does not encroach on the boundaries of the historic site. The proximity of the road results in a Section 106 Adverse Effect, but there is no constructive use. |
| 10. Hintz Farmhouse (NL-                             | Farmhouse built around 1930.                                                                                              | No – Avoided by shifting roadway to                                                                                                                                                           |



TABLE F-A-1

## Summary Inventory of Section 4(f) Properties within US 14 Study Area Including Section 4(f) Use

| Resource Name                                | Brief Resource Description                                                                                                                                                                                                                            | Section 4(f) Use                                                                                                                                                                                                                                                                      |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CTT-057)                                     |                                                                                                                                                                                                                                                       | the north                                                                                                                                                                                                                                                                             |
| 11. Thielbar Barn (NL-NCT-033)*              | A raised/basement barn (built around 1905) and a concrete stave silo.                                                                                                                                                                                 | No – upgrade of county road to state highway will not encroach on barn                                                                                                                                                                                                                |
| 12. Johnson Barn (NL-BEL-011)*               | Barn and attached silo was built around 1920 and is a well-preserved example of rock-faced concrete block construction.                                                                                                                               | No – the proposed right of way does not encroach on the boundaries of the historic site. The proximity of the road results in a Section 106 Adverse Effect, but there is no constructive use.                                                                                         |
| 13. WSP Railroad Alignment (NL-CTT-056)      | Corridor containing remnant railroad landforms and structures, next to portions of existing US 14.                                                                                                                                                    | Yes – removal of stone box culverts is a 4(f) impact                                                                                                                                                                                                                                  |
| Archaeological Properties                    |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                       |
| 14. Altman Site (21NL58)                     | Archaeological site in the Minnesota River Valley near existing US 14.                                                                                                                                                                                | No—Although there is a Section 106 Adverse Effect, it is not a 4(f) impact because the site does not warrant preservation in place                                                                                                                                                    |
| 15. New Ulm Conglomerate Site (21NL59)       | Archaeological site in the Minnesota River Valley near existing US 14.                                                                                                                                                                                | No—Quartzite Outcrop will be avoided. Remainder of Site Does Not Warrant Preservation in Place                                                                                                                                                                                        |
| Public Parks and Recreation Areas            |                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                       |
| 16. Minnecon Park                            | Located on the New Ulm side of the Minnesota River, downstream approximately 350 feet from the Minnesota River bridge. This park is the only a Section 6(f) resource in the study area.                                                               | No—Avoided                                                                                                                                                                                                                                                                            |
| 17. Eckstein Boat Landing                    | Located on the Minnesota River, just east of CR 37 and south of US 14.                                                                                                                                                                                | No—Although the grade change for CR 37 approaching the interchange with US 14 will require moving the access further west on the site, Nicollet County's agreement with the Minnesota DNR allows cancellation of the agreement if the property is needed for transportation purposes. |
| 18. Swan Lake Wildlife Management Area (WMA) | A multiple use prairie pothole complex managed by the Minnesota DNR. As a whole, the WMA is not considered a Section 4(f) resource. Elements of the WMA, e.g. boat landings, are Section 4(f) properties; however, no such sites used by the project. | No—Eligible portions are avoided                                                                                                                                                                                                                                                      |

The numbering of the resources above corresponds to the numbering on Exhibit F-A-2.

\* Indicates that a resource is one of the 29 timber frame barns reviewed (see Section III.A. below).

Several of the historic architectural properties listed in Table F-A-1 are timber frame barns. The prevalence of older gable-roof three-bay English type barns along this corridor prompted the examination of these barns. These “raised” or “basement” barns are likely second-generation barns, built to replace earlier, smaller, settlement-era barns. The barns were likely originally built as general-purpose or “combination” structures used for storing crops and housing livestock. Many of the barns display distinctive characteristics of German immigrant construction that are now rare in Minnesota, including scribe carpentry (individually measured and cut framing members), *fachwerk*-style square panel framing in the walls, and diagonal corner braces.

All of these barns have undergone some level of alteration. Changes range from the addition of small silos and milk houses, to larger-scale expansions.<sup>3</sup> Each barn’s physical integrity was assessed in determining eligibility for the NRHP. Twenty-nine timber frame barns were reviewed. Sixteen were recommended as eligible for the NRHP. Seven are listed in the table above and two barns – the Kohn Barn (NL-CTT-025) and the barn on the Heim Farmstead (NL-CTT-026) – were identified in the DEIS and Draft Section 4(f) Evaluation as having potential for a Section 4(f) use. Since then the other Kohn Barn (NL-CTT-033) and Johnson Barn (NL-BEL-011) have been added as well.

The discussion below provides a detailed description of properties that will be or had the potential to be affected by the Preferred Alternative.

### 1) New Ulm Spring Roadside Parking Area (RPA) (NL-CTT-006)

The New Ulm Spring RPA was designed by noted landscape architect, A.R. Nichols and built in 1938-1939 by the National Youth Administration (NYA) as part of President Roosevelt’s New Deal and the Roadside Development Division of the Minnesota Department of Highways.

The RPA was originally built as a wayside rest area for drivers to stop and use an artesian spring, which is now capped. The 4.6 acre site includes several structures; all constructed from locally quarried red quartzite. These include a retaining wall about 156 feet long, 2 sets of stone steps leading into the wooded hillside, and a stone picnic fireplace in the wooded hillside. The stone structures are in disrepair; the steps and fireplace are obscured by brush. Based on observations and reports from local residents and officials, this site is rarely visited for interpretive reasons nor is it used as a rest area.

The RPA was determined eligible for the NRHP as part of the MnDOT Historic Roadside Development Structures Inventory, completed in 1998. Reasons for inclusion on the NRHP include: unique construction; exemplification of NYA works in cooperation with the Minnesota Department of Highways; and for its design and use of indigenous materials.

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<sup>3</sup> Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*

TABLE F-A-2

## New Ulm Spring Roadside Parking Area (NL-CTT-006)

|                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                                                                                                         | <p><u>Size</u>: The RPA consists of approximately 4.6 acres.</p> <p><u>Location</u>: North side of US 14, approximately one mile southeast of US 14/MN 15 intersection [Courtland Township (T110N R30W), Sec 22]</p> <p>The eastern property boundary generally follows the MnDOT right-of-way line. The western boundary is approximately 12 feet east of the US 14 centerline. The northern boundary follows the MnDOT right-of-way line and an extension from it that meets the western boundary. The southern boundary follows the right-of-way line and a line perpendicular with the US 14 centerline that is approximately 100 feet south of the end of the stone wall (<i>MnDOT Historic Roadside Development Structures Inventory – Site Boundaries</i>).</p> |
| Ownership and Type of Property                                                                                                            | In US 14 right of way, making it MnDOT property; historic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Function of Property, and Available Activities                                                                                            | Historic roadside pull off for water and picnicking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Description and Location of existing and planned facilities                                                                               | A pipe from a natural spring is set into a stone wall immediately adjacent to the pull off area, the pipe is capped due to water contamination; Stairs to picnic area are obscured by vegetation; Stone fireplace is in disrepair and hidden by vegetation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Access and Usage                                                                                                                          | Access provided by a direct pull-off on the north side of US 14; Virtually no usage either as rest area or for interpretive reasons.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Relationship to other similarly used lands in the vicinity                                                                                | There are no rest areas along the corridor nearby, but the Cities of New Ulm and Courtland have parks that accommodate pull offs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Applicable clauses affecting the ownership                                                                                                | This site is owned by MnDOT. Under the Preferred Alternative, the site will remain in MnDOT ownership. Access will be maintained in a “right-in right-out” configuration.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Unusual characteristics                                                                                                                   | NRHP Eligible; the <i>MnDOT Historic Roadside Development Structures Inventory</i> identifies this wall as “outstanding” compared to 66 other walls inventoried.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Source: <i>Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota</i> , p. 3.26 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## 2) Kohn Barn (NL-CTT-025)

Originally built by a German immigrant family circa 1890, the barn’s construction details are characteristic of traditional German timber framing, which is understood to be rare in Minnesota. These details include dense *fachwerk* square panel wall framing, diagonal corner bracing, and evidence of scribe carpentry. The only addition to this barn is a silo, making this one of the least altered barns in the area.

TABLE F-A-3

## Kohn Barn (NL-CTT-025)

|                   |                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------|
| Size and Location | <u>Size</u> : Boundaries of historic site are approximately 100 feet out from the barn and silo on all sides |
|-------------------|--------------------------------------------------------------------------------------------------------------|

TABLE F-A-3

## Kohn Barn (NL-CTT-025)

|                                                                                                                                          |                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                          | <u>Location</u> : 54350 US 14 Courtland, MN 56021 [(T110N R30W), Sec 36, SW ¼ of SW ¼]                           |
| Ownership and Type of Property                                                                                                           | Private; Historic                                                                                                |
| Function of Property, and Available Activities                                                                                           | Privately owned active farming operation; no public activities                                                   |
| Description and Location of existing and planned facilities                                                                              | Timber frame barn and silo; set just off existing highway right of way                                           |
| Access and Usage                                                                                                                         | Direct turnoff on south side of US 14; N public use                                                              |
| Relationship to other similarly used lands in the vicinity                                                                               | One of the 29 German timber frame barns assessed within the study area.                                          |
| Applicable clauses affecting the ownership                                                                                               | None                                                                                                             |
| Unusual characteristics                                                                                                                  | NRHP Eligible; The only addition to this barn is a silo, making this one of the least altered barns in the area. |
| <i>Source: Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota, p. 3.52</i> |                                                                                                                  |

## 3) Heim Farmstead (NL-CTT-026)

The Heim farmstead was recommended as eligible for the NRHP. Approximately 85.5 acres of the original 205 acre farmstead have retained enough integrity to continue to convey associations with late 19th and early- to mid-20th century farming in the region. The eligible farmstead contains a small acreage on the north side of existing US 14 and part of a larger farm on the south side of US 14. The eligible farmstead currently has different property owners on the north and south sides of the highway. The northern part of the farmstead includes the NRHP eligible barn. Built by a German immigrant family in 1907, the barn is a late example of a timber frame construction that displays characteristics of traditional German timber framing, including dense *fachwerk* square panel wall framing and diagonal corner bracing. This barn has only undergone an early balloon frame addition. The condition of the barn is sufficient enough to continue to convey association of German immigration to the rural Minnesota River valley. Although the phase I analysis recommended only the barn as NRHP eligible, the phase II analysis found the farmstead associated with the barn as eligible. Although a clay and gravel quarry operation occupies the south half of the farmstead, this has been determined to not affect the eligibility of the property. Thus the eligible site contains 85.5 acres located both on the north and south side of existing us 14.

TABLE F-A-4

## Heim Farmstead (NL-CTT-026)

|                   |                                                                                                                                                                                                                    |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location | <u>Size</u> : Eligible farmstead includes historic structures and 85.5 acres of adjacent land; size of the barn is unknown.<br><u>Location</u> : 55712 US 24 [Courtland Township (T109N), Section 1, NE ¼ of NW ¼] |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

TABLE F-A-4

## Heim Farmstead (NL-CTT-026)

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ownership and Type of Property                              | Privately owned by multiple parcels with multiple owners; Historic                                                                                                                                                                                                                                                                                                                                               |
| Function of Property, and Available Activities              | Privately owned rural residence on one parcel, other is actively farmed; no public activities                                                                                                                                                                                                                                                                                                                    |
| Description and Location of existing and planned facilities | Privately owned active rural residential home on north side. Land on south side contains no structures. Part of south parcel is being mined.                                                                                                                                                                                                                                                                     |
| Access and Usage                                            | Both north and south parcels have direct access from US 14; no public use                                                                                                                                                                                                                                                                                                                                        |
| Relationship to other similarly used lands in the vicinity  | The barn is one of the 29 German timber frame barns assessed within the US 14 study area                                                                                                                                                                                                                                                                                                                         |
| Applicable clauses affecting the ownership                  | The 85.5 acres included in the eligible Heim Farmstead contains a small acreage on the north side of US 14 containing a home, barn, and other outbuildings; and a larger acreage on the south side of US 14 with no structures. These parcels are under different ownership. Apparently mineral rights on some or the entire southerly parcel are owned by a mining company, with plans to extract the resource. |
| Unusual characteristics                                     | NRHP Eligible; This barn has only undergone an early balloon frame addition.                                                                                                                                                                                                                                                                                                                                     |

Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*, p. 3.56

## 4) Kohn Barn (NL-CTT-033)

Built around 1895, this barn and attached concrete stave silo display characteristics of traditional German timber framing, which is understood to be rare in Minnesota. Evidence of scribe carpentry and other details suggest a skilled craftsman building in European tradition.

The Kohn Barn is one of the 29 German timber frame barns assessed within the US 14 study area. Despite alternations, the barn is considered eligible for the NHRP under Criterion A and/or C based on the conveyance of rare construction details and associations with German immigration to the rural Minnesota River Valley.

TABLE F-A-5

## Kohn Barn (NL-CTT-033)

|                                                             |                                                                                                                                                                                                                                            |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | <u>Size</u> : Boundaries of historic site are approximately 100 feet out from the barn and silo on all sides<br><u>Location</u> : 46266 547 <sup>th</sup> Lane, Courtland, MN 56021 [Courtland Township (T109N R29W), Sec 6, SW ¼ of NW ¼] |
| Ownership and Type of Property                              | Privately owned; Historic                                                                                                                                                                                                                  |
| Function of Property, and Available Activities              | Privately operated farm; no public activities                                                                                                                                                                                              |
| Description and Location of existing and planned facilities | Timber frame barn; barn is set back on property 550 feet from existing roadway.                                                                                                                                                            |
| Access and Usage                                            | Direct access from the south side of US 14; private farm use, no public use                                                                                                                                                                |
| Relationship to other similarly used lands in the vicinity  | One of the 29 German timber frame barns assessed within the study area                                                                                                                                                                     |
| Applicable clauses affecting the ownership                  | NA                                                                                                                                                                                                                                         |

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Unusual characteristics

NRHP Eligible

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Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*, p. 3.75

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### 5) Hintz Farmhouse (NL-CTT-057)

Built around 1930, this brick farmhouse is reflective of the Colonial Revival style. It may also be associated with the early 20th century progressive movement to improve American farmhouses, farm life, and farm women's workload through modern farmhouse design and improved aesthetics. Elements of the Hintz property recommended as eligible for inclusion on the NRHP include the farmhouse, the garage, the driveway, lawn, and associated ornamental plantings (e.g., trees, shrubs, and flowers). The rest of the farmstead has lost physical integrity.

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TABLE F-A-6

#### Hintz Farmhouse (NL-CTT-057)

|                                                             |                                                                                                                                                                                                                                           |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | <u>Size</u> : The boundaries include the farmhouse, garage, driveway, lawn and associated ornamental plantings.<br><u>Location</u> : 51621 US 14, Courtland, MN 56021 [Courtland Township (T109N R29W), Sec 10, SE ¼ of NW ¼]             |
| Ownership and Type of Property                              | Private; Historic                                                                                                                                                                                                                         |
| Function of Property, and Available Activities              | Privately owned rural residential property; no public activities                                                                                                                                                                          |
| Description and Location of existing and planned facilities | Two-story brick farmhouse is an unusually well-developed and intact example of the Colonial Revival style, which is associated with the early 20 <sup>th</sup> century progressive movement to improve American farmhouses and farm life. |
| Access and Usage                                            | Direct access from the south side of US 14; private residence, no public use                                                                                                                                                              |
| Relationship to other similarly used lands in the vicinity  | NA                                                                                                                                                                                                                                        |
| Applicable clauses affecting the ownership                  | NA                                                                                                                                                                                                                                        |
| Unusual characteristics                                     | NRHP Eligible                                                                                                                                                                                                                             |

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Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*, p. 3.109.

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### 6) Johnson Barn (NL-BEL-011)

The Johnson Barn, a 39' x 100' dairy barn with a Gothic arch roof and an attached silo are eligible for the National Register under Criterion A and/or C. The dairy barn (circa 1920) and silo are both unusually well-preserved examples of rockfaced concrete block construction. The barn is a large example of its type and retains many of its mechanical elements, including stanchions and ventilation systems. This eligible barn on this property is one of the 29 German timber frame barns within the US 14 study area. The rest of the farmstead lacks historic integrity (primarily because the farmhouse was recently replaced) and is not recommended as eligible.

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TABLE F-A-7

#### Johnson Barn (NL-BEL-011)

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|                                                                                                                                           |                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                                                                                                         | <u>Size</u> : Boundaries of historic site are approximately 100 feet out from the barn on all sides<br><u>Location</u> : 51621 US 14, Courtland, MN 56021 [Belgrade Township (T109N R27W), Sec 29, SW ¼ of SW ¼] |
| Ownership and Type of Property                                                                                                            | Private; Historic                                                                                                                                                                                                |
| Function of Property, and Available Activities                                                                                            | Privately owned rural residential property; no public activities                                                                                                                                                 |
| Description and Location of existing and planned facilities                                                                               | Timber frame barn; set back about 330 feet from the existing roadway                                                                                                                                             |
| Access and Usage                                                                                                                          | Access from County Road; private rural residence, no public use                                                                                                                                                  |
| Relationship to other similarly used lands in the vicinity                                                                                | One of the 29 German timber frame barns assessed within the study area                                                                                                                                           |
| Applicable clauses affecting the ownership                                                                                                | NA                                                                                                                                                                                                               |
| Unusual characteristics                                                                                                                   | NRHP Eligible; well preserved rockfaced concrete block construction                                                                                                                                              |
| Source: <i>Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota</i> , p. 3.14 |                                                                                                                                                                                                                  |

## 7) Altman Archaeological Site (21NL58)

The site contains intact, deeply buried animal remains and artifacts that indicate the site was likely Archaic-period procurement and processing (butchering) site. The overall integrity of the archaeological resources at this site is very good, including the preservation of bone and shell within the deposits. Because the site is deeply buried, it has not been affected by plowing or erosion. This site is recommended as eligible for listing on the NRHP under Criterion A for its association with early occupation of the Minnesota River valley; and under Criterion D for its ability assist with answering important archaeological research questions concerning the distribution and character of such sites (e.g., providing insights into subsistence patterns, seasonality, and technologies used at that time). It does not, however, warrant preservation in place.

This approximately six acre site is located to the east of the Minnesota River and to the west of the US 14 corridor in the Minnesota River valley bluff. A portion of the site is privately owned, while the other part of the site is located within US 14 right-of-way, which is owned by MnDOT.

TABLE F-A-8

### Altman Archaeological Site (21NL58)

|                                                             |                                                                                                                                  |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | <u>Size</u> : Archaeological Site approximately six acres<br><u>Location</u> : near junction of US 14 and MN 15                  |
| Ownership and Type of Property                              | The site is owed by multiple private property owners and MnDOT (part of the site is located within US 14 right-of-way); Historic |
| Function of Property, and Available Activities              | Archaeological site, Ancient procurement and processing site; private farm and highway right of way, no public activities        |
| Description and Location of existing and planned facilities | Buried archaeology                                                                                                               |
| Access and Usage                                            | Field entrance south of US 14; Private field and highway right of way, no public use                                             |
| Relationship to other similarly used lands in               | Unknown                                                                                                                          |



TABLE F-A-8

## Altman Archaeological Site (21NL58)

the vicinity

|                                            |                                                       |
|--------------------------------------------|-------------------------------------------------------|
| Applicable clauses affecting the ownership | None                                                  |
| Unusual characteristics                    | NRHP eligible, preservation in place is not warranted |

Source: *TH 14—New Ulm to North Mankato Archaeological Survey, Nicollet County Minnesota*, (October 2005).

## 8) New Ulm Conglomerate Archaeological Site (21NL59)

Site 21NL59 is an ancient tool-making and camp site consisting of a precontact artifact scatter with intact subsurface deposits surrounding a Sioux Quartzite outcrop known as the “New Ulm Conglomerate.” Artifacts found at the site (including lithics of raw materials from the outcrop and utilized cobbles) indicate that the site was a location for quarrying and lithic reduction activities. Also, the New Ulm Conglomerate is one of only two surface exposures of the Sioux Quartzite basal conglomerate within Minnesota. This makes the outcropping important for providing an understanding of Minnesota geology.

TABLE F-A-9

## New Ulm Conglomerate Site (21NL59)

|                                                             |                                                                                                                                  |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | Size: Archaeological Site approximately six acres<br>Location: near US 14 between MN 15 and CR 37                                |
| Ownership and Type of Property                              | The site is owed by multiple private property owners and MnDOT (part of the site is located within US 14 right-of-way); Historic |
| Function of Property, and Available Activities              | Archaeological site, Ancient tool-making and camp site; private property and MnDOT right of way, no public activities            |
| Description and Location of existing and planned facilities | Rock outcrop near highway and surrounding area                                                                                   |
| Access and Usage                                            | Direct turnoff on south side of US 14, also turn off on west side of CR 37; no public use                                        |
| Relationship to other similarly used lands in the vicinity  | Unknown                                                                                                                          |
| Applicable clauses affecting the ownership                  | None                                                                                                                             |
| Unusual characteristics                                     | NRHP eligible, the rock outcrop warrants preservation in place, the lithic scatter areas do not.                                 |

Source: *TH 14—New Ulm to North Mankato Archaeological Survey, Nicollet County Minnesota*, (October 2005).

## 9) WSP Railroad Line (NL-CTT-056)

The Winona and St. Peter (WSP) Railroad line consists of remnant railroad grade and structures (culverts and bridge abutments). The now-dismantled railroad was originally built as an extension from St. Peter to New Ulm in 1872. After many decades of service, the tracks in Nicollet County were removed in 1973. While various elements can be inventoried separately, the WSP Railroad is linear in nature and is thus also described as a corridor (see Exhibit FA-2



and the Aerial Photo Exhibit). It is also known as the Chicago and Northwestern Railway. The individual elements near the US 14 corridor include: the Courtland Segment (NL-CTT-056), the Nicollet Segment (NL-CTT-001), and four stone box culverts (NL-CTT-101, -106, -107, and -108). The rail line also includes other similar structures (e.g., 178 total stone box culverts along the entire WSP rail line corridor within Minnesota) located well outside the area of potential effect. Generally, the line in the study area runs south of Courtland, joins the existing US Highway 14 corridor east of Courtland and runs along the highway's north side, where the railbed is typically not present, having been altered by agricultural activity. Just west of Nicollet, the WSP line angles toward the northeast and away from US 14 as the highway diverges toward the southeast.

The WSP Railroad line in the US 14 study area is not as intact or visible as other segments of the same line outside the study area. In 2000, consulting historians (AHR and Hess, Roise) recommended that, "the entire historic [WSP] line across the state of Minnesota should be listed as a linear district" (i.e. eligible for the National Register). It should be noted that the AHR survey did not include the segment through Nicollet County. A later Phase II Evaluation (Gemini, 2006) found, "...the Courtland and Nicollet township segments of the Winona and St. Peter railroad line to not retain sufficient integrity to merit becoming part of the NRHP-eligible historic district recommended by the AHR survey. It was recommended that the railroad line in both Courtland and Nicollet townships, as well as eight bridges and culverts inventoried separately along the line, are not eligible for the National Register. Furthermore, the Nicollet County Historical Society indicated that this segment is of minimal value in conveying historic information to the public and there are better sections within Nicollet County east of the City of Nicollet (see their comment letter in Section 4.3.3 of the Final EIS).

In coordination between MnDOT's Cultural Resources Unit and the State Historic Preservation Office it was determined that the WSP Railroad is eligible for the National Register. The stone box culverts were determined to be not individually eligible, but they are considered contributing elements to the eligible railroad.

TABLE F-A-10

WSP Railroad Line (NL-CTT-056)

|                                                             |                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | Railroad extended east and west across southern Minnesota; including across Nicollet County, through the communities of St. Peter and New Ulm. Individual stone box culverts are located west of 511 <sup>th</sup> Avenue, three of them are north of the highway and one is south. |
| Ownership and Type of Property                              | Owned by many private property owners, some of the railroad line is also within MnDOT right-of-way along US 14; Historic                                                                                                                                                            |
| Function of Property, and Available Activities              | Private farm and woodland and highway right of way; no public activities                                                                                                                                                                                                            |
| Description and Location of existing and planned facilities | Site consists of the former rail line that has been obliterated except for short stretches of visible embankment and four stone box culverts                                                                                                                                        |
| Access and Usage                                            | Various field entrances; no interpretive usage                                                                                                                                                                                                                                      |
| Relationship to other similarly used lands in the vicinity  | Part of a linear corridor extending across Minnesota, the stone culverts are among the most common types of structures on the line. A total of 178 stone box culverts have been identified along the                                                                                |

TABLE F-A-10

## WSP Railroad Line (NL-CTT-056)

|                                            |                                                                                                                 |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                                            | former WSP rail corridor within the state.                                                                      |
| Applicable clauses affecting the ownership | None                                                                                                            |
| Unusual characteristics                    | The railroad line is NRHP eligible, and the box culverts, not individually eligible, are contributing elements. |

Source: *Phase II Evaluation of Historic Structures Along T.H. 14 Between New Ulm and Mankato, Nicollet County, Minnesota*, p. 3.106

## 10) Minnecon Park

Minnecon Park is located along the Minnesota River approximately 350 feet downstream of the US 14 Minnesota River Bridge, on the right bank when facing downstream. The park is sited on a section of “old US 14” that was turned over to the City of New Ulm in 1962. The park is accessible from 5<sup>th</sup> Street North in New Ulm. Land acquisition and development of park facilities was done in part with money from the Land and Water Conservation Fund (also known as LAWCON or L&WCF). Therefore, the park is covered by Section 6(f) of the LAWCON Act. Amenities within the park include a shelter building, picnic tables, restrooms, and a boat launch. The park also includes a public water access to the Minnesota River that is included on Minnesota DNR public water accesses. This park is not used or otherwise impacted by the US 14 project.

TABLE F-A-11

## Minnecon Park

|                                                             |                                                                                                                                                                                                                                                |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | Size unknown; Located along Minnesota River approximately 350 downstream of the US 14 river bridge.                                                                                                                                            |
| Ownership and Type of Property                              | City of New Ulm; Park                                                                                                                                                                                                                          |
| Function of Property, and Available Activities              | Public park including shelter, picnic tables, restrooms, boat launch                                                                                                                                                                           |
| Description and Location of existing and planned facilities | Located at the end of Minnecon Drive (former US 14), there is a single park shelter with restrooms and a parking area in front of it and mowed grass around it. A boat launch also has a large gravel parking area; Planned facilities unknown |
| Access and Usage                                            | From 5 <sup>th</sup> Street North on Minnecon Drive; Usage unknown                                                                                                                                                                             |
| Relationship to other similarly used lands in the vicinity  | One of many city parks in New Ulm, Other boat accesses to river are 3.5 miles (as the crow flies) upstream and 2 miles (again, as the crow flies) downstream                                                                                   |
| Applicable clauses affecting the ownership                  | Land acquisition and development was done with LAWCON funding (making it Section 6(f) eligible)                                                                                                                                                |
| Unusual characteristics                                     | None                                                                                                                                                                                                                                           |

Source: City of New Ulm website and communications

## 11) Eckstein Boat Landing

Eckstein Landing is another public water access within the US 14 study area. It is located adjacent to CR 37, at Minnesota River mile 148, on the left bank of the river when facing downstream. The concrete landing is accessed from CR 37 south of US 14 in Nicollet County. The landing is on land owned by Nicollet County. It is operated under an agreement by maintained by the Minnesota DNR. The land is owned by Nicollet County, and is part of the right of way of County Road 37. The agreement between the County and the Mn/DNR includes a 30-day cancellation clause should the county need the land for transportation purposes. As a result, the landing is not considered Section 4(f) property.

TABLE F-A-12

### Eckstein Boat Landing

|                                                             |                                                                                                                                              |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | Approximately 2 acres; South of CR 37 just west of junction with US 14 on Minnesota River                                                    |
| Ownership and Type of Property                              | Land is owned by Nicollet County, boat landing operated by the DNR; Recreational                                                             |
| Function of Property, and Available Activities              | Boat landing; Boat launch and parking                                                                                                        |
| Description and Location of existing and planned facilities | Site consists of a concrete landing and gravel parking area                                                                                  |
| Access and Usage                                            | Access from CR 37; moderate usage                                                                                                            |
| Relationship to other similarly used lands in the vicinity  | Other boat launches are Minnecon Park 2 miles (as the crow flies) upstream and 5.5 miles (as the crow flies) downstream                      |
| Applicable clauses affecting the ownership                  | The land is part of the CR 37 right of way and the agreement with the DNR contains a 30-day cancellation clause for transportation purposes. |
| Unusual characteristics                                     | None                                                                                                                                         |

Source: Communications with DNR and staff observations

## 12) Swan Lake Wildlife Management Area

Swan Lake Wildlife Management Area (WMA) is located predominately north of US 14, west of the City of Nicollet. Several separate relatively small parcels are located south of US 14. This resource is owned and managed by the Minnesota Department of Natural Resources (Mn/DNR). The WMA – a prairie pothole landscape, surrounding Swan Lake – is a special resource in the project area. At one time it was the largest prairie pothole marsh in America, and was once even more abundant with waterfowl. Originally, the marsh consisted of more than 10,000 acres of tall prairie grass with marshlands and woodlots, along with many small wetlands. A Biological Survey conducted in 1917 called Swan Lake the most important resort for ducks and other water birds in the Great Plains Region. Over time the area wetlands were drained for more tillable acreage. Swan Lake became a stagnant pond with little vegetation. Nesting and winter habitat areas also began to disappear. In 1985 a Swan Lake Recovery Plan was developed, which identified 108,000 acres of land that would be acquired over time from willing sellers. The plan would convert this land back to prairie grasses and satellite wetlands.

The WMA is primarily intended for game and aquatic species management. It is used publicly for hunting waterfowl, pheasants, turkey, and deer. Fishing in Swan Lake is also common. Several small parking lots and boat landings which provide access to Swan Lake are maintained throughout the WMA. There are no designated or maintained trails.

As discussed in Section 3.14 of the FEIS, as a whole, the WMA is not considered a Section 4(f) resource. The Swan Lake WMA is considered by FHWA to be a multiple use land holding, with wildlife species management and recreational uses dispersed within the WMA. In practice, this means that certain areas or sites within the WMA (e.g. a boat landing) could be defined as Section 4(f) resources, even though the WMA as a whole is not a Section 4(f) resource.

TABLE F-A-13

Swan Lake Wildlife Management Area

|                                                             |                                                                                                                                                                                                                                                                 |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Size and Location                                           | The WMA consists of many dispersed units in Nicollet County, the Nicollet Bay Main Unit is the largest in the project area at 163 acres; Predominately north of US 14 between Courtland and Nicollet                                                            |
| Ownership and Type of Property                              | Minnesota DNR; Multiple use land holding                                                                                                                                                                                                                        |
| Function of Property, and Available Activities              | Species management; hunting and water access                                                                                                                                                                                                                    |
| Description and Location of existing and planned facilities | Adjacent to the highway is a restored prairie site used for seed stock for other prairie plantings, adjacent to Swan Lake is a water level control structure, a parking area, boat landing, and 680 feet long dock with a handicapped accessible hunting blind. |
| Access and Usage                                            | One access off US 14 leads to the boat landing and hunting blind, another leads to a parking area adjacent to restored prairie. Observations of usage indicate that it is fairly light.                                                                         |
| Relationship to other similarly used lands in the vicinity  | Water access and publicly usable hunting grounds are available throughout Nicollet County and the surrounding region. A number of WMA's, Waterfowl Production Areas and Scientific and Natural Areas provide land for species management.                       |
| Applicable clauses affecting the ownership                  | Portions of the property, including land proposed for acquisition as part of the project, were developed with Pittman-Robertson funding which may require procedural conversion of the land to highway right of way.                                            |
| Unusual characteristics                                     | Handicapped accessible hunting blind                                                                                                                                                                                                                            |

Source: Communications with DNR and DNR website

### III. Section 4(f) Resources Impact Assessment

This section describes the impacts to eligible Section 4(f) resources. Two properties on the corridor will be impacted by the Preferred Alternative in a manner that constitutes a Section 4(f) "use" warranting Section 4(f) analysis. These properties, described below are the Heim Farmstead (NL-CTT-026) and the WSP Railroad Line (NL-CTT-056). Those ten properties where the impact does not constitute a Section 4(f) "use" are noted and not discussed further in Sections III, IV, and V. The reader is referred to the discussion on page F-A-5 under the heading "A Note to the Reader Regarding Terminology" for clarification on the difference between a Section 106 "effect" and Section 4(f) "use."

### 1) New Ulm Spring Roadside Parking Area (RPA) (NL-CTT-006)

Although MnDOT already owns this site, it was determined eliminating the pull off for drivers would have resulted in a Section 4(f) use of the site because it was originally built for that purpose. At the time the DEIS and Draft Section 4(f) Evaluation were circulated, it was anticipated that either Alternative W1 or W3 would physically encroach into the site and necessitate the closing of the present pull off and parking area. Under Alternative W2, US 14 between MN 15 and CR 37 would have been turned back to Nicollet County. Jurisdiction of the RPA, including maintenance responsibility, would have been given to Nicollet County.

The Preferred Alternative has been shifted in a southerly direction to avoid encroachment onto the site. This design shift will allow for the construction of an access pull off lane, and a small parking area. A right-in right-out access will be provided. A gravel parking area will be provided to match the existing condition. The shoulder of the access lane will be closer to the stone wall than the existing shoulder, resulting in an Adverse Effect determination under Section 106. However, because the site is owned by MnDOT and the site will continue to be used for its intended purpose, there is no Section 4(f) impact at this site.

### 2) Kohn Barn (NL-CTT-025)

The Preferred Alternative W1 has been modified to fit between the Kohn Barn and the Heim Barn such that both may remain in place and be completely usable. The proposed right of way acquisition does not encroach on the historical property boundaries. The new right of way will be within 115 feet of the barn and house resulting in a determination of a Section 106 Adverse Effect on the property, but this does not constitute a Section 4(f) use of the eligible property. As a result, there is no Section 4(f) impact at this site.

### 3) Heim Farmstead (NL-CTT-026)

The proposed improvements will not encroach on the NRHP eligible barn any more than the existing roadway, however, the Preferred Alternative W1 passes through the eligible farmstead adjacent to the existing alignment. In order to maintain access to the Heim home site and three other properties north of the highway, a portion of the existing road will become a frontage road. Approximately 4.5 of the 85.5 acres that are considered Section 4(f) eligible will be converted to highway right of way. This is a Section 4(f) use.

### 4) Kohn Barn (NL-CTT-033)

There will be no land acquired from the portion of the property that is within the historic site boundaries. The new lanes for the Preferred Alternative W1 will be added to the south of the existing roadway bringing the proposed right of way to within 120 feet of the (ineligible) house and within 390 feet of the NRHP eligible barn. This was determined to be a Section 106 Adverse Effect. This does not, however, constitute a Section 4(f) use of the site. As a result, there is no Section 4(f) impact at this site.

### 5) Hintz Farmhouse (NL-CTT-057)

The new lanes for the Preferred Alternative E1 will be built to the north of the existing roadway so that no encroachment will occur on the NRHP eligible house or surrounding contributing elements. The property will retain access. There will be no acquisition of land within the boundaries of the historic property and there has been a determination of No Adverse Effect so there is no Section 4(f) use.

## 6) Johnson Barn (NL-BEL-011)

There will be no property purchased from within the boundaries of the historic site. For all the Build Alternatives the new lanes would be within 250 feet of the eligible barn and 150 feet of the ineligible house. There has been a Section 106 Adverse Effect determination, but there is no Section 4(f) use of the historic property. As a result, there is no Section 4(f) impact at this site.

## 7) Altman Archaeological Site (21NL58)

The Preferred Alternative W1 builds over this site and would disturb it. This results in an Adverse Effect under Section 106. The site does not warrant preservation in place, however. As a result it is not a Section 4(f) eligible site.

## 8) New Ulm Conglomerate Archaeological Site (21NL59)

The Preferred Alternative W1 includes an interchange at the junction of US 14 and CR 37 near which this site is located. Since the DEIS/Draft Section 4(f) was circulated, additional design work has been undertaken at this site. This has resulted in a shift in the main line of both US 14 and CR 37, as well as a shift in the interchange ramp locations. As a result the Preferred Alternative will avoid the outcrop (which warrants preservation in place and is a Section 4(f) resource), and will further avoid the areas where shovel tests found lithic remnants (which areas do not warrant preservation in place and would not be Section 4(f) resources). This has in turn resulted in a determination of No Adverse Effect for the New Ulm Conglomerate Archaeological Site and there is no Section 4(f) use.

## 9) WSP Railroad Line (NL-CTT-056)

Preferred Alternative E1 will construct additional lanes to the north of the existing lanes in the area where there are remnants of the WSP Railroad Line. This work will impact three of the stone box culverts (NL-CTT-106, -107, -108), and this portion of the former WSP railroad line would be converted to TH 14 right-of-way. This has been determined to be a Section 106 Adverse Effect and is a Section 4(f) use.

## 10) Minnecon Park

This park is not used or otherwise impacted by the US 14 project so there is no Section 4(f) use.

## 11) Eckstein Boat Landing

Because of the fill necessary to take CR 37 up over the top of US 14 for the interchange the access to the boat landing will be moved farther to the south. The landing is on property owned by Nicollet County as CR 37 right of way and is operated under an agreement with the Minnesota DNR. The agreement between the County and the DNR includes a 30-day cancellation clause should the county need the land for transportation purposes. As a result, the landing is not considered Section 4(f) property.

## 12) Swan Lake Wildlife Management Area

The Preferred Alternative E1 includes minor impacts to portions of the WMA adjacent to the existing highway. An access may be shifted to line up with a public road to improve safety and there will be a need for wetland mitigation. MnDOT anticipates working closely with the DNR to not only mitigate impacts, but also to enhance the overall resource. None of the areas that are protected under Section 4(f) will be impacted nor are they close to the expanded highway. Therefore, there is no Section 4(f) use at this site.



## IV. Avoidance Alternatives

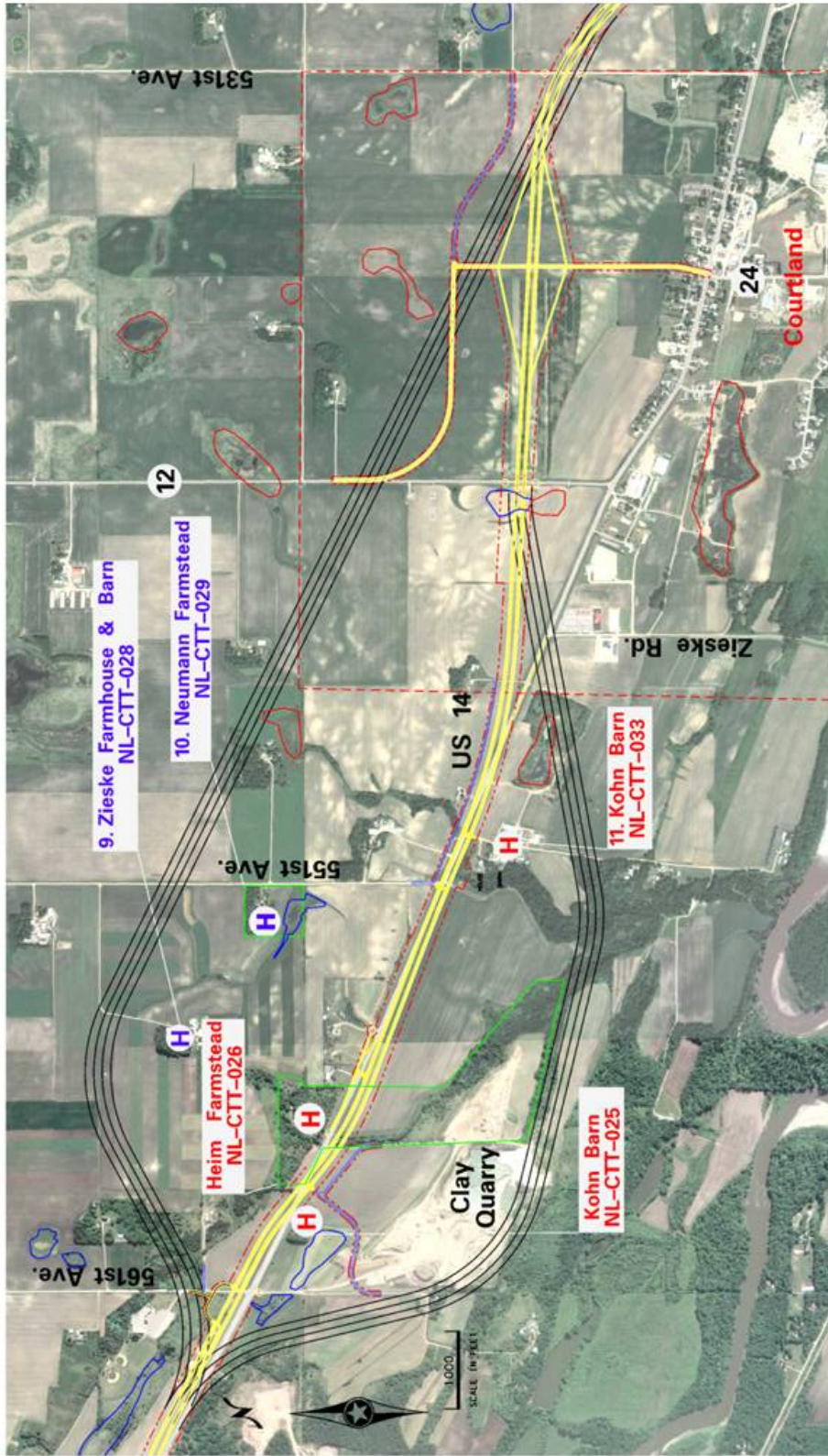
The previous section describes the impacts to the two Section 4(f) resources affected by the Preferred Alternative: the Heim Farmstead and WSP Railroad Corridor. This section describes alternatives that were considered that would have avoided impacts to these two resources and why the alternatives were found to be either infeasible or imprudent. In this analysis consideration is given to the value of the resource and the degree of impact to the resource.

### 1) Heim Farmstead (NL-CTT-026)

The boundaries of the NHRP eligible Heim Farmstead include approximately 85.5 acres, lying both north and south of existing US 14 as shown in Exhibit F-A-3. At the north and south right of way lines of the existing highway, the Heim Farmstead abuts the highway for approximately 1250 feet. The northern boundary of the eligible farmstead extends approximately 1250 feet north of the existing highway, and the southern boundary is approximately 2750 feet south of the existing highway. Five alternatives were considered to avoid the property: Alternatives W2 and W3, a southerly bypass of the property, a northerly bypass of the property, and constructing the highway completely within the existing right of way (either as four lanes or two lanes).

The Final EIS provides the rationale for selecting Preferred Alternative W1 over Alternatives W2 and W3 (see Section 2.2.2). In summary, W2 ascends the bluff at a more environmentally sensitive location and both W2 and W3 result in an expensive bridge crossing of Heyman's Creek where it cuts a deep, wide ravine through the bluff top. These alternatives also require new construction that parallels the existing US 14 which would remain in place as a county road, thereby using up much more land and maintenance resources. Alternatives W2 and W3 are not prudent alternatives for avoiding the relatively minor impacts to the Heim Farmstead property.

A southerly bypass of the Heim Farmstead was considered and is shown on Exhibit F-A-3. This alternative would impact quartzite and clay quarries that provide a valuable resource, would require two long bridges to cross two deep ravines, and would impact a railroad stone box culvert, a timber trestle, and a plate girder bridge that have not been fully evaluated under Section 106 (an initial review identified them as not eligible, but they are part of the WSP line and would be contributing elements, making them potential Section 4(f) properties). The



additional cost for this alternative over the Preferred Alternative is difficult to determine because the value of the mineral resources depends on yields and royalties and because the length of the bridges cannot be determined without consultation with environmental agencies (minimum length is for two 100 foot long bridges, but they could be as long as 500 and 400 feet). The additional costs range from \$10 to 30 million. These costs and impacts are extraordinary compared to the relatively small potential benefits that would be gained by avoiding the 4.5 acres of impact to the Heim Farmstead property, making the southern bypass an imprudent alternative.

A northerly bypass of the Heim Farmstead, a new alternative that would go up the bluff west of the historic farmstead, was considered and rejected as imprudent. This would place the entrance to the high school on a tight curve at the base of a steep grade which would be unacceptable from a safety standpoint. In addition, this alternative would result in bluff cuts and farmland impacts similar to Alternatives W2 and W3.

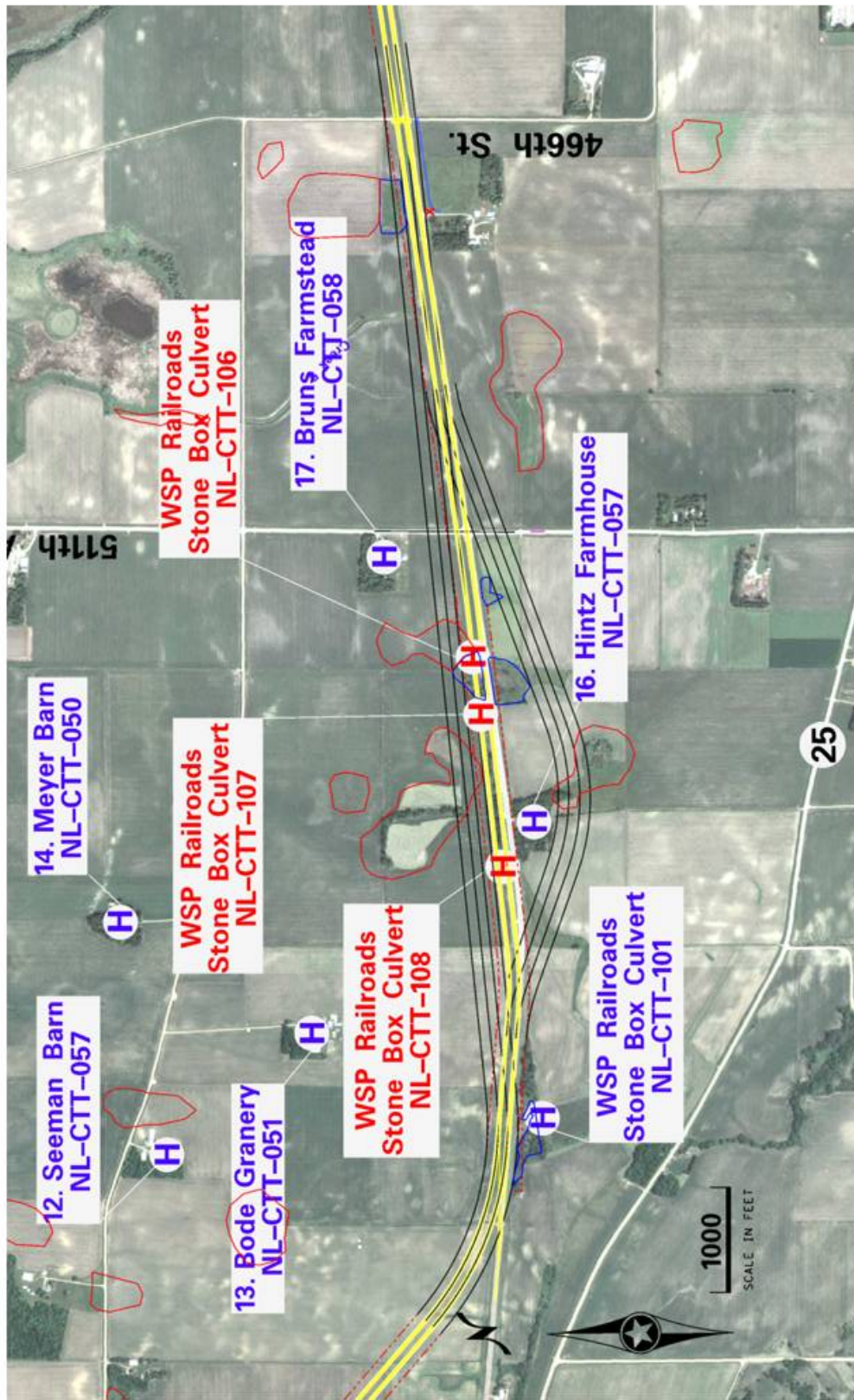
Narrowing the roadway cross section to fit within the existing 150 foot right of way was also considered. Doing so would require a narrow median with some form of traffic barrier down the middle to prevent head on collisions. Outside the travel lanes, retaining wall would likely be needed on one or both sides of the road because of the lack of space for a maintainable slope. This would require guardrail to keep vehicles from going off the walls. These features, especially retaining walls, add expense. Furthermore, although guardrail is added to improve safety, it is still a hazard that causes injury and damage when struck. Wide medians and gentle ditch slopes provide a safer, more forgiving roadside. Also, keeping the roadway exactly on the existing alignment would mean the residences to the north would all still need to access the highway directly. A series of four residential accesses in close proximity on an otherwise limited access facility increases the risk of crashes. Finally, the introduction of a short length of narrow median roadway in the middle of two long unconstrained segments when there are no environmental indicators alerting drivers to the approaching changes is contrary to the purpose of the project in providing system continuity. Compared to the minor impact to the historic property of widening the right of way on the existing alignment, these avoidance alternatives are not be considered prudent.

In conclusion, none of the five avoidance alternatives are prudent. Section V. explains how the design has been developed to minimize harm to the Heim Farmstead resource.

## 2) WSP Railroad Line (NL-CTT-056 and NL NCT-001)

While not individually eligible for the Nation Register of Historic Places, the stone box culverts on the WSP Railroad line are considered contributing elements to eligible rail line. As noted in Section II.9, there are a total of 178 known stone box culvert structures along the former WSP rail line across Minnesota. The three stone box culverts that will be affected by the project (NL-CTT-106, -107, -108) are along a segment of road just over a quarter mile long. Therefore, all avoidance measures apply to each of the structures.

Six avoidance measures were considered: Utilize Alternatives E3 or E4, bypass just to the south of the Hintz Farmhouse, bypass just to the north of the culverts, split the lanes to leave the culverts in place in the median, or fit the four lanes within the existing right of way. The preferred alternative as well as the north and south bypasses are shown in Exhibit F-A-4.



The Final EIS describes why Preferred Alternative E1 was selected over Alternatives E3 and E4 (see Section 2.2.2). In summary, E3 affects more federal Section 404 wetlands (10 additional acres) and more farmland (115 additional acres), and creates a situation where there are three parallel highways (new US 14, existing US 14, and CR 25) within two miles of one another, using up more farmland, introducing more barriers to wildlife movement, and requiring greater expenditures by the county and state to maintain the roadways. Alternative E4, although impacting fewer wetlands (3 fewer acres), affects yet more farmland (130 additional acres) and places the interchange farther from the City of Nicollet which is a large generator of traffic because it serves as a bedroom community for Mankato and connects Minnesota Highways 99 and 111 with US 14. This greater separation between the city and its access to the highway would likely induce leapfrog development out at the interchange resulting in greater costs for the City of Nicollet and more farmland converted to commercial and industrial purposes. For both alternatives, the additional impacts to other resources and additional transportation system cost impacts compared to the relatively small impact to the integrity of the historic WSP Railroad corridor do not warrant moving the highway off the existing alignment (E1).

A bypass immediately to the south of the Hintz Farmhouse (which must be avoided because it too is a Section 4(f) resource) to avoid impacts to the stone box culverts would require acquisition of an additional 22.6 acres of farmland as it introduces a jog in the roadway and leaves small remnants with irregular boundaries. In addition it would introduce angled rows in five other fields. It would also require leaving a half mile of existing US 14 in place to maintain access to the Hintz Farmhouse. Given the relatively minor impact that the loss of the stone box culverts would have on the integrity of the WSP Railroad as an eligible resource, these impacts to farmland would not be prudent.

Realigning the highway to the north of the stone box culverts was also considered. This alternative would result in still more farmland (25.4 additional acres) and more federal Section 404 wetland (4.7 additional acres) impacts. Therefore, this alternative is also not prudent.

Consideration was given to routing the westbound lanes north of the stone box culverts while keeping the eastbound lanes on the existing alignment. This alternative still affects 17.4 acres of farmland and an additional 1.6 acres of federal Section 404 wetlands. It is the most appealing of the avoidance alternatives for the aesthetic effect of leaving trees in the median. However, the farmland and wetland impacts make this an imprudent alternative.

Narrowing the road to fit within the existing right of way was considered, but rejected because the right of way is already narrow here (125 feet wide). The minimum right-of-way width needed based on a 'rural' highway ditch section is greater than 150 feet. Reducing this would require retaining wall which, combined with the guardrail to protect errant vehicles would be extraordinarily expensive and introduce driver safety hazards. Therefore, this alternative is also not prudent.

None of the alternatives that were considered in order to avoid a Section 4(f) use of the three WSP Railroad stone box culverts is prudent given the impacts to safety, other resources, and costs when compared to the value of preserving the box culverts in order to maintain the integrity of the extensive WSP Railroad corridor. Measures taken to minimize harm to the railroad are discussed in the next section.

## V. Measures to Minimize Harm

This section outlines those measures that have been taken in the preliminary design of the highway to minimize harm to the two Section 4(f) resources affected by the Preferred Alternative.

### 1) Heim Farmstead (NL-CTT-026)

In order to minimize harm to the Heim Farmstead while avoiding the Kohn Barn, the Preferred Alternative includes shifting the highway slightly to the north of the existing roadway west of the Heim Farmstead and then shifting to the south in front of the residence and barn on the Heim Farmstead to maintain access to the property. Access will be provided to the northern part of the farmstead through the construction of a frontage road. The frontage road will provide access to the farmstead's north parcel, as well as three residences to the east of the Heim Farmstead (see Figure F-A-3). This frontage road will be constructed on the location of existing US 14. If access were not provided, it would be necessary to acquire the part of the Heim Farmstead lying north of US 14, which includes the eligible barn, thereby resulting in a more extensive use.

### 2) WSP Railroad Line (NL-CTT-056 and NL NCT-001)

The Preferred Alternative results in the demolition of three stone box culverts (NL-CTT-106, -107, -108). As part of the Memorandum of Agreement with the State Historic Preservation Office, MnDOT will provide for photo documentation of the culverts as mitigation for the adverse effect.

## VI. Coordination Summary

Table F-A-14 shows the coordination meetings that have been held with agencies regarding Section 4(f) property issues. (Also see Section 4 of the FEIS for information on additional interagency and public coordination activities).

TABLE F-A-14

AGENCY COORDINATION MEETINGS WITH MNDOT CULTURAL RESOURCES UNIT AND STATE HISTORIC PRESERVATION OFFICE (SHPO)

| Date              | Attending Agencies                                                  | Focus                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Aug. 16, 2005     | Minnesota DOT Cultural Resources Unit and Archaeological Consultant | Discussed findings of archaeological survey and the preliminary findings of the architectural history survey                                            |
| June 9, 2006      | Minnesota DOT Cultural Resources Unit                               | Discussed findings of the historic architectural and archaeological resource reports (see Section 3.13 for more details)                                |
| December 13, 2006 | MnDOT Cultural Resources Unit                                       | Discussed with MnDOT's historian and archaeologist the potential Section 4(f) uses and Section 106 adverse effects (see Section 3.13 for more details). |
| February 13, 2007 | MnDOT Cultural Resources Unit and State Historic                    | Field day to verify the potential Section 4(f) uses and Section 106 Adverse Effects documented in Section 3.13.                                         |

TABLE F-A-14

AGENCY COORDINATION MEETINGS WITH MNDOT CULTURAL RESOURCES UNIT AND STATE HISTORIC PRESERVATION OFFICE (SHPO)

| Date        | Attending Agencies<br>Preservation Office                                                                 | Focus                                                                                                                                                                      |
|-------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Summer 2008 | MnDOT Cultural Resources Unit, State Historic Preservation Office, and Nicollet County Historical Society | Reviewed railroad box culverts and alignment in the field to determine whether they should be considered eligible for listing on the National Register of Historic Places. |

## VII. Least Overall Harm Analysis

This section summarizes the findings in the previous sections, comparing the alternatives considered to avoid the Section 4(f) resources, and identifying the alternative that results in the least overall harm.

### 1) What is Affected

Construction of the Preferred Alternative results in the use of two properties eligible for protection under Section 4(f).

The Heim Farmstead (NL-CTT-026) is an 85.5 acre remnant of an original 205 acre farmstead that has retained enough integrity to demonstrate associations with late 19<sup>th</sup> and early to mid 20<sup>th</sup> century farming of the Minnesota River Valley region. The highway currently splits the home site containing the individually NRHP eligible barn from the remainder of the property (which has a different owner). The Preferred Alternative will follow the existing alignment and acquire 4.5 acres as highway right of way.

The Winona and Saint Peter Railroad line (NL-CTT-056, NL-CTT-001) is a former rail corridor that crosses the entire state of Minnesota and, although the segments in the project area are not considered individually eligible for the NRHP, the remaining stone box culverts are considered contributing elements. The Preferred Alternative will cause the demolition of three stone box culverts.

### 2) Alternatives Considered

Alternatives to avoid the Heim Farmstead consisted of:

- Alternative W2 – this alternative would realign seven miles of highway starting at MN 15 at New Ulm and carry it on new alignment on the bluff top, thereby avoiding the farmstead completely.
- Alternative W3 – this alternative would realign five miles of highway starting at CR 37 at New Ulm and carry it on new alignment on the bluff top, thereby avoiding the farmstead completely.

- Bypassing the Property to the South – this alternative would realign three miles of highway starting just west of the Heim Farmstead and carry it on new to the south thereby skirting along the south boundary of the farmstead.
- Bypassing the Property to the North – this alternative would realign three miles of highway starting just west of the Heim Farmstead and carry it on new alignment on the bluff top, thereby avoiding the farmstead completely.
- Narrowing the Roadway Cross Section – this alternative would keep the road in the existing 150 feet of right of way by narrowing the median and eliminating ditches in favor of storm sewer and retaining wall.

Alternatives that were considered to avoid the WSP Railroad stone box culverts included:

- Alternative E3 – this alternative would realign seven miles of highway starting just east of Courtland and carry it on new alignment through farm fields, thereby avoiding the stone box culverts completely.
- Alternative E4 – this alternative would realign seven miles of highway starting just east of Courtland and carry it on new alignment through farm fields, thereby avoiding the stone box culverts completely.
- Bypassing the Property to the South – this alternative would realign about a mile of roadway and jog around the stone box culverts and the NRHP eligible Hintz Farmhouse (NL-CTT-057) to the south.
- Bypassing the Property to the North – this alternative would realign about a mile of roadway and jog around the stone box culverts to the north.
- Splitting the Alignment with the Box Culverts in the Median – this alternative would keep the eastbound lanes on the existing alignment and run the westbound lanes north of the stone box culverts, preserving them in the median.
- Narrowing the Roadway Cross Section – this alternative would keep the road in the existing 125 feet of right of way by narrowing the median and eliminating ditches in favor of storm sewer and retaining wall.

### 3) Mitigation/Concurrence of Officials with Jurisdiction

Mitigation for Section 106 impacts to the Heim Farmstead and three timber frame barns along the corridor will consist of an in depth study of the construction of the barns to develop a greater understanding of how they were constructed and what that tells us about farming practice and culture of German immigrants of the late 19<sup>th</sup> and early to mid 20<sup>th</sup> century.

Mitigation for the impacts to the stone box culverts of the WSP Railroad line will consist of Level 1 documentation of the structures, i.e. photographing, measuring, and otherwise documenting their existence.

The SHPO has concurred with the proposed mitigation for project impacts to the Section 4(f) historic resources. The signed Section 106 Memorandum of Agreement, contained in Appendix B of the FEIS documents SHPO's concurrence.



#### 4) Severity of Harm After Mitigation

The effect on the Heim Farmstead consists of widening a busy two-lane highway that splits the property and making it a four-lane highway on the same alignment. The harm to the property is minimal.

The WSP Railroad line will lose three of the 178 known box culverts along the corridor. The stone box culverts that will be affected by the project are not individually eligible for the NRHP.

#### 5) Significance of Affected Section 4(f) Resources

Although determined to be eligible for the National Register of Historic Places, the Heim Farmstead has low value as a Section 4(f) resource. The original farmstead consisted of 205 acres, but only 85.5 of those retain enough integrity to be included in the historic boundaries. Nearly half of those acres are operated as a clay and gravel quarry. The highway currently runs through the property and the land north and south of the road has different owners. Although eligibility under Section 106 has been determined to be appropriate, the low significance of the property is an important consideration in determining whether it is prudent to select an avoidance alternative.

The three stone box culverts that are affected by the project and delineate the Section 106 eligible Winona and Saint Peter Railroad line in the vicinity of the Preferred Alternative have little value in preserving the integrity of the rail line. These structures are not individually eligible for listing on the NRHP. They are not unique as there are 178 known box culverts on the WSP corridor. They are barely visible and do nothing to convey a sense of history to the public (see the Nicollet County Historical Society letter in Section 4.3.3). When considering the preservation purpose of Section 4(f), these elements have minimal value.

#### 6) Magnitude of Impacts to non-4(f) Resources and Costs of the Preferred and Avoidance Alternatives

The following tables summarize the impacts to particularly sensitive resources in the vicinity of the two Section 4(f) impacts. The quantity of impact is noted for the Preferred Alternative and the change offered by each of the avoidance alternatives is noted.

Table F-A-15  
Heim Farmstead Avoidance Alternative Impacts

| Alternative                                | Section 106 & Section 4(f) Impacts | Section 404 Wetland Impacts | Farmland Impacts | Other Notable Impacts                                                                                                  | Cost                    |
|--------------------------------------------|------------------------------------|-----------------------------|------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Preferred Alt W1 impacts                   | 5 – 106 impacts<br>1 – 4(f) use    | 13.7 acres                  | 145 acres        |                                                                                                                        | \$74.8-111.0 million    |
| Quantity Relative to Preferred Alternative |                                    |                             |                  |                                                                                                                        |                         |
| Alternative W2                             | 1 less 4(f)                        | 8.7 acres less              | 155 acres more   | Woodland habitat & bluff cuts; High erosion potential                                                                  | \$7.5-9.9 million more  |
| Alternative W3                             | 1 less 4(f)                        | 1.5 acres less              | 115 acres more   | Woodland habitat & bluff cuts; High erosion potential                                                                  | \$6.7-15.8 million more |
| South Bypass                               | same                               | 0.6 acres more              | 35 acres more    | Safety: Tight curve near MVL access<br>Woodland habitat                                                                | \$10-30 million more    |
| North Bypass                               | 1 less 106<br>1 less 4(f)          | 0.1 acre more               | 25 acres more    | Safety: Curve at bottom of bluff at access to MVL;<br>Woodland habitat & bluff cut;<br>Steep road grade                | \$1 million more        |
| Narrow Median                              | 1 less 4(f)                        | 0 acres more                | 25 acres less    | Safety: Narrow median, guardrail, changing cross section approaching MVL;<br>Does not meet purpose and need of project | <\$1 million more       |

Table F-A-16  
WSP Railroad Avoidance Alternative Impacts

| Alternative                                | Section 106 & Section 4(f) Impacts | Section 404 Wetland Impacts | Farmland Impacts | Other Notable Impacts                                                              | Cost                                   |
|--------------------------------------------|------------------------------------|-----------------------------|------------------|------------------------------------------------------------------------------------|----------------------------------------|
| Preferred E1                               | 2 – 106 impacts<br>1 – 4(f) use    | 8.2 acres                   | 430 acres        |                                                                                    | \$97.0-139.7 million                   |
| Quantity Relative to Preferred Alternative |                                    |                             |                  |                                                                                    |                                        |
| Alternative E3                             | 1 less 106<br>1 less 4(f)          | 9.6 acres more              | 115 acres more   |                                                                                    | \$5.6-6.5 million more                 |
| Alternative E4                             | 1 less 106<br>1 less 4(f)          | 3.4 acres less              | 130 acres more   | Interchange too far from city                                                      | \$6.9 million less to 0.3 million more |
| South Bypass                               | 1 less 106<br>1 less 4(f)          | 1 acre less                 | 23 acres more    |                                                                                    | <\$1 million more                      |
| North Bypass                               | 1 less 106<br>1 less 4(f)          | 4.7 acres more              | 25 acres more    |                                                                                    | About the same                         |
| Split Alignment                            | 1 less 106<br>1 less 4(f)          | 1.6 acres more              | 17 acres more    |                                                                                    | About the same                         |
| Narrow Median                              | 1 less 106<br>1 less 4(f)          | 3 acres less                | 12 acres less    | Lacks continuity with adjacent sections; Does not meet purpose and need of project | <\$1 million more                      |

## 7) Degree to Which Each Alternative Meets Purpose and Need

All of the Build alternatives considered for this project met the purpose and need; therefore there was so substantive difference among the Preferred Alternative and/or the Section 4(f) avoidance/minimization alternatives with respect to meeting the project purpose and need.

## 8) Least Overall Harm Alternative

Alternatives that avoid impacts to the Heim Farmstead have much larger impacts to other resources, especially the bluffs and ravines associated with the Minnesota River valley. In addition to the environmental impact they impose, there are greater costs associated with these alternatives. Compared to the negative effect on the historic farmstead due to acquisition of 4.5 acres of land in a strip along the existing alignment, these costs and impacts are of much greater value. The alternative that causes the least overall harm and best fits the context of the highway in this area is the Preferred Alternative.

In the vicinity of the Winona and Saint Peter Railroad stone box culverts the avoidance alternatives are not profoundly worse than the Preferred Alternative, but they do result in greater impacts, particularly to farmland. One of the stated purposes of the project is to fit the context of the region including minimizing impacts to farms. Because the stone box culverts do not carry a high value in maintaining the integrity of the WSP Railroad line, even 20 acres of additional farmland impact is an inappropriate tradeoff. Therefore, the Preferred Alternative is the option that will cause the least overall harm while fulfilling the purpose and need of the project.

## VIII. Conclusion

Based upon the above considerations, it is determined that there is no feasible and prudent alternative to the use of land from the Heim Farmstead and the WSP Railroad Line, and the proposed action includes all possible planning to minimize harm to these resources resulting from such use.

APPENDIX B

**Section 106 Memorandum of Agreement**

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APPENDIX B

# Section 106 Memorandum of Agreement

U.S. Highway 14—New Ulm to North Mankato in Brown and Nicollet Counties, Minnesota

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MEMORANDUM OF AGREEMENT  
PURSUANT TO SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT  
(36 CFR 800), AS AMENDED, BETWEEN  
THE FEDERAL HIGHWAY ADMINISTRATION (FHWA) AND  
THE MINNESOTA STATE HISTORIC PRESERVATION OFFICE (SHPO)  
REGARDING RECONSTRUCTION OF U.S. HIGHWAY 14 (State Project [S.P.] 5200-03)  
BETWEEN NEW ULM AND NORTH MANKATO, MINNESOTA

WHEREAS, the Federal Highway Administration (FHWA) is providing Federal-Aid Highway Program funds the Minnesota Department of Transportation (Mn/DOT) for reconstruction and realignment of a segment of U.S. Highway 14 between New Ulm and North Mankato (S.P.5300-03); and

WHEREAS, the FHWA has found that the undertaking will have adverse effects on historic properties determined eligible for listing on the National Register of Historic Places in consultation with SHPO; and

WHEREAS, the FHWA has notified the Advisory Council on Historic Preservation (the Council) of its finding of adverse effects pursuant to 36 CFR 800.6(a)(1) and has provided the documentation specified in 36 CFR 800.11(e), and the Council has chosen not to participate in the consultation;

WHEREAS, the FHWA has consulted with the Minnesota State Historic Preservation Office (SHPO) and the Minnesota Department of Transportation (Mn/DOT) pursuant to 36 CFR 800.6(b)(1) to resolve the adverse effects of the undertaking on historic properties; and

WHEREAS, construction of this project may not begin for several years and important eligible properties may be lost in the interim due to neglect or development; and

WHEREAS, the study and recordation of selected Germanic timber-frame barns in this locale is important to the understanding of their construction and makers and to the state's history; and

WHEREAS, the FHWA has invited the Mn/DOT to become a signatory to this memorandum of agreement (MOA) pursuant to 36 CFR 800.6(c)(2); and

NOW, THEREFORE, the FHWA, the SHPO and the Mn/DOT agree that upon the FHWA's decision to proceed with the undertaking, the FHWA shall ensure that the following stipulations are implemented in order to take into account the effects of the undertaking on historic properties, and that these stipulations shall govern the undertaking and all of its parts until this MOA expires or is terminated.

## Stipulations

### 1. Terms

(A) Mn/DOT will complete a study of timber-frame barns in the project area that exhibit German influence in their design and construction. The scope and requirements of the study will

be developed through consultation between the Mn/DOT and the SHPO. This study will be completed by an historian who meets the Secretary of Interior's Professional standards for historian. Mn/DOT will submit the completed documentation to the SHPO for approval.

(B) Mn/DOT will complete a Level I documentation of the Winona and St. Peter Railroad stone culvert NL-CTT-101 to the standards of the *Minnesota Historic Property Record Guidelines* developed by the SHPO (revised June 2009). The documentation will be completed by an historian who meets the Secretary of Interior's Professional Standards for historian. Mn/DOT will submit the completed documentation to the SHPO for approval.

(C) MnDOT will complete a National Register nomination for the New Ulm Wayside (NL-CTT-006). The nomination will be completed by an historian who meets the Secretary of Interior's Professional Standards for historian. Mn/DOT will submit the completed documentation to the SHPO for approval.

(D) A data recovery plan for the Altman Site (21NL58) will be developed by Mn/DOT CRU and submitted to MnSHPO for its review and concurrence. Mn/DOT will submit the final version of the plan to MnSHPO. The MnDOT District 7 project manager will notify the CRU in a time frame that allows for the necessary reviews of the data recovery plan and allows time for the completion of the data recovery before construction begins near the Altman site. Mn/DOT shall ensure that all materials and records resulting from the data recovery are curated at the Minnesota Historical Society in accordance with 36 CFR part 79. Mn/DOT will submit the draft report of the data recovery excavations to MnSHPO for review and concurrence within four years from the time the construction project is awarded.

(E) Mn/DOT will work with the construction contractor to protect unevaluated portions of the Altman Site (21NL 58). This will include provisions in the construction documents and plans to ensure that construction will not extend beyond the boundaries of the archaeological survey area and that temporary fencing will be erected to protect undisturbed portions of the site adjacent to construction or construction-related activities (i.e., storage, stockpiling, etc.). Construction documents and plans containing these provisions will be submitted to the Mn/DOT CRU and the MnSHPO for review and concurrence prior to the start of construction.

## **2. Administrative Provisions**

(A) Dispute Resolution. Any party to this MOA may object to its terms or the implementation of its terms by providing a written objection to the FHWA. The FHWA shall consult with the party to resolve their objection. If, after consultation, the FHWA determines that the objection cannot be resolved, the FHWA will forward all documentation relevant to the objection to the Council, including the FHWA's proposed response to the objection. Within 30 (thirty) days of receiving adequate documentation from the FHWA, the Council shall exercise one of the following options:

- i. The Council shall advise the FHWA that it concurs in the FHWA's proposed response to the objection, whereupon the FHWA will respond to the objection accordingly; or
- ii. The Council shall provide the FHWA with recommendations, which the FHWA shall take into account in reaching a final decision regarding its response to the objection.

- iii. The FHWA may assume the Council's concurrence in its proposed response to the objection if the Council does not exercise one of the above options within 30 (thirty) days of receiving all pertinent documentation.
- iv. The FHWA shall take into account any Council recommendation or comment provided in accordance with this stipulation with reference only to the subject of the objection; the FHWA's responsibility to carry out all actions under this MOA that are not the subject(s) of the objection shall remain unchanged.

(B) Public Objection. If a member of the public raises an objection pertaining to this MOA or the effects of the undertaking on historic properties during implementation of the MOA's stipulations, the FHWA shall notify the parties to this MOA and take the objection into account, consulting with the objector and, if the objector requests, with any of the parties to this MOA to resolve the objection.

(C) Amendments. Any signatory to this MOA may ask for an amendment by making a written request to the FHWA, whereupon the parties to the MOA shall consult to consider the proposed amendment. The regulations at 36 CFR 800 shall govern the execution of any such amendment.

(D) Termination. Any signatory to this MOA may terminate it by providing 60 (sixty) days written notice to the FHWA and the other signatories, provided the FHWA and the other signatories consult during the period prior to termination to agree on amendments or other actions that would avoid termination.

(E) Termination Date. If the terms of this MOA have not been implemented within four (4) years of its full execution date (excepting the dates included for data recovery in Stipulations 1.D and 1.E), the MOA shall be considered null and void. If the FHWA anticipates that the MOA will not be implemented within this timeframe, it will notify the parties to the MOA in writing at least 60 (sixty) days prior to the MOA becoming invalid. The MOA may be extended by the written concurrence of the signatories. If the MOA becomes invalid and the FHWA elects to continue with the undertaking, the FHWA will reinstate review of the undertaking pursuant to 36 CFR 800.

Execution of this MOA and implementation of its terms evidences that the FHWA has taken into account the effects of the undertaking on historic properties and afforded the Council a reasonable opportunity to comment on the undertaking.

**Signatories:**

FEDERAL HIGHWAY ADMINISTRATION (FHWA)

By:  \_\_\_\_\_  
 for Derrell Turner, Division Administrator

11/4/2010  
 Date

MINNESOTA STATE HISTORIC PRESERVATION OFFICE (SHPO)

By:  \_\_\_\_\_  
 Britta Bloomberg, Deputy State Historic Preservation Officer

9/27/10  
 Date

**Invited Signatories:**

MINNESOTA DEPARTMENT OF TRANSPORTATION (Mn/DOT)

By:   
Thomas K. Sorel, Commissioner

9/7/10  
Date



APPENDIX C

## List of Preparers

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# List of Preparers

U.S. Highway 14—New Ulm to North Mankato in Brown and Nicollet Counties, Minnesota

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## Minnesota Department of Transportation

- Peter Harff – District 7, Project Manager
- Gerry Larson – Central Office, Office of Environmental Services
- Jennie Ross – Central Office, Office of Environmental Services
- Chris Bower – District 7, Design
- Zachary Tess – District 7 Design
- Matthew Rottermond, District 7 Design
- Giles Abbe – District 7, Geometric Design Supervisor
- Greg Ous – District 7, Assistant District Engineer for Project Delivery
- Chad Fowlds – District 7, Assistant District Engineer for Project Delivery
- Mary Dieken – District 7, Project Engineer
- Marc Flygare – District 7, Traffic Engineer
- Rolin Sinn – District 7, Design Engineer
- Larry Holm – Highway Maintenance
- Woody Woodruff – Highway Maintenance Supervisor
- Craig Felber – Contract Administrator
- Rebecca Arndt – Public Affairs Coordinator
- Nancy Radle – Office of Environmental Services, Hydrologist
- Jacqueline Sluss – Office of Environmental Services, Cultural Resources Unit
- Craig Johnson – Office of Environmental services, Cultural Resources Unit

## Federal Agencies

- Phil Forst: Federal Highway Administration – Environmental Engineer
- Cheryl Martin: Federal Highway Administration – Environmental Engineer
- Jon K. Ahlness: U.S. Army Corps of Engineers – Wetland Permitting Coordinator
- Michael Setering: U.S. Army Corps of Engineers – Wetland Permitting Coordinator

## **CH2M HILL (Draft EIS)**

- Howard Preston – Project Manager
- Doug Abere – Deputy Project Manager; Consultant Project Manager / Environmental Impact Statement, Section 4(f), and Public Involvement Lead
- Mary Gute - Project Planner for EIS Development and Public Involvement; GIS/EIS Production Lead
- Jeff Olson – Wetland Scientist/Natural Resource Specialist
- Will Stein – Preliminary Design Manager
- Michael Barry – Preliminary Design Engineer
- Tim Thoreen – Project Planner for EIS Development and Public Involvement
- Nicole Farrington – Preliminary Design and Cost Estimating Engineer

## **Bolton and Menk (Draft EIS)**

Jon Huseby – Public Involvement Deputy Project Manager

Gina Mitchell – Project Planner

Brett Benzkofer – Cost Estimating Engineer

Bill Douglas – Water Resources Engineer

Dale Maul – Project Planner

Chantill Kahler Royer – Water Resources Engineer

## **Kestrel Design Group (Draft EIS)**

- Peter MacDonagh – Project Advisor
- Chris Lenhart – Professional Scientist
- Tony Randazzo - Wetlands and GIS Specialist
- Sean Jergens - GIS Specialist

APPENDIX D

**Distribution List**

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APPENDIX D

# Distribution List

U.S. Highway 14 from New Ulm to North Mankato, Minnesota

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The US Highway 14 Final EIS has been distributed to federal and state agencies, local governments, and other interested individuals including anyone who requested a copy of the Draft or Final EIS and anyone who made substantive comments on the Draft EIS. In order to accommodate the differing needs of the recipients of the document, it is being distributed in the following formats depending on the needs of the individual receiving it:

| Format                                                    | Recipients                                                                                                                                                                                                      |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Paper Copy                                                | Agencies and governmental units; Libraries; and Individuals who request a paper copy                                                                                                                            |
| Compact Disc                                              | Agencies and governmental units in addition to or in place of a paper copy; the disc contains the Draft EIS also.                                                                                               |
| Postcard or email notification of availability on website | Agency and governmental unit staff who have been part of the coordination effort, but are not the designated recipient of the document; Project Advisory Committee members; Individuals who submitted comments. |

The distribution list below identifies who will receive the document.

## Federal Agencies

|                                                                                                                                                                         |                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Federal Highway Administration</b><br>Philip Forst<br>380 Jackson St # 500<br>Saint Paul, MN 55101-4802                                                              | 9 Paper<br>1 CD                                                                          |
| <b>U.S. Army Corps of Engineers</b><br>Tamara Cameron<br>Regulatory Functions Branch<br>Army Corps of Engineers Center<br>190 Fifth St. East<br>St. Paul, MN 55101-1638 | 1 Paper<br>1 CD<br>Email to Michael Setering                                             |
| <b>U.S. Environmental Protection Agency</b><br>For purposes of publishing in the Federal Register - FHWA Division Office will submit copies                             | 1 Paper<br>4 CD                                                                          |
| <b>U.S. Environmental Protection Agency</b><br>Kenneth Westlake<br>Section Chief<br>NIS-OECA, E-19J                                                                     | 2 Paper<br>2 CD<br>Email to Virginia Laszewski<br>Note: one paper copy and 4 CDs will be |

|                                                                                                                                                                                                 |                                                                                                                                                                                                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 77 W. Jackson Blvd<br>Chicago, IL 60604                                                                                                                                                         | sent to EPA in Washington, D.C.                                                                                                                                                                               |
| <b>Department of Interior</b><br>Office of Environmental Policy & Compliance<br>1849 C Street NW, MS 2340<br>Washington D.C. 20240                                                              | 1 Paper<br>11 CD<br>Email to:<br>Tony Sullins - Fish & Wildlife Service<br>Laurie Fairchild - Fish & Wildlife Service<br>Nick Chevance - National Park Service<br>Alan Robbins-Fenger - National Park Service |
| <b>Department of Agriculture</b><br>Office of the Secretary<br>Washington D.C. 20250                                                                                                            | 1 Paper                                                                                                                                                                                                       |
| <b>Natural Resources Conservation Service</b><br>U.S. Department of Agriculture<br>375 Jackson Street<br>St. Paul, MN 55101                                                                     | 1 Paper<br>1 CD<br>Email to Scott Swanberg                                                                                                                                                                    |
| <b>Federal Aviation Administration</b><br>District Office Chief<br>6020 - 28 <sup>th</sup> Avenue South<br>Minneapolis, MN 55450                                                                | 1 CD                                                                                                                                                                                                          |
| <b>Federal Aviation Administration</b><br>Planning Staff Chief<br>Great Lakes Regional Office<br>2300 East Devon<br>Des Plaines, Illinois 60018                                                 | 1 CD                                                                                                                                                                                                          |
| <b>Federal Railroad Administration</b><br>Regional Administrator<br>Region 4<br>111 North Canal Street, Suite 655<br>Chicago, IL 60606                                                          | 1 CD                                                                                                                                                                                                          |
| <b>Federal Railroad Administration</b><br>Associate Administrator for Policy and Program Development<br>Environmental Policies, Mail Stop 15<br>1120 Vermont Avenue NW<br>Washington D.C. 20005 | 1 CD                                                                                                                                                                                                          |
| <b>Federal Transit Administrator</b><br>Regional Administrator<br>200 West Adam Street, Suite 2410                                                                                              | 1 CD                                                                                                                                                                                                          |

|                                                                                                                                                                                            |                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Chicago, IL 60606                                                                                                                                                                          |                        |
| <b>Federal Emergency Management Agency</b><br>Regional Director, Region V<br>536 South Clark Street, 6 <sup>th</sup> Floor<br>Chicago, IL 60605-1521                                       | 1 CD                   |
| <b>Second Coast Guard District</b><br>Commander<br>1222 Spruce Street<br>St. Louis, MO 63103-2832                                                                                          | 1 CD                   |
| <b>Department of Housing &amp; Urban Development</b><br>Ms. Kathleen Schmidt<br>Field Environmental Officer<br>DHUD<br>310 West Wisconsin Avenue<br>Suite 1380<br>Milwaukee, WI 53203-2289 | 1 CD                   |
| <b>Ecology and Conservation Office</b><br>NEPA Coordinator<br>14 <sup>th</sup> and Constitution Avenue NW<br>HCHB SP Room 6117<br>Washington D.C. 20230                                    | 1 Paper                |
| <b>Department of Energy</b><br>Division of NEPA Affairs<br>Room 4-G-064<br>1000 Independence Avenue SW<br>Washington D.C. 20585                                                            | 1 CD                   |
| <b>Federal Energy Regulatory Commission</b><br>Regional Director<br>U.S. Custom House Room 3130<br>230 South Dearborn<br>Chicago, IL 60604                                                 | Email to Peggy Harding |
| <b>Center for Disease Control<br/>Center for Environmental Health</b><br>Special Programs Group (F-29)<br>4770 Buford Highway<br>Atlanta, GA 30341-3724                                    | 1 CD                   |

## State Agencies

|                                                                                                                                                                                                      |                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Department of Agriculture</b><br/>         Becky Balk<br/>         625 N. Robert Street<br/>         St. Paul, MN 55155</p>                                                                    | <p>1 Paper</p>                                                                                                                                                                     |
| <p><b>Department of Natural Resources</b><br/>         Steve Colvin<br/>         Environmental Review Unit<br/>         500 Lafayette Road<br/>         St. Paul, MN 55155-4025</p>                  | <p>1 Paper<br/>         1 CD<br/>         Email to:<br/>         Joe Stangel<br/>         Leo Getsfried<br/>         Also 1 Paper, 1 CD, and email to Kevin<br/>         Mixon</p> |
| <p><b>Pollution Control Agency</b><br/>         Craig Affeldt, Supervisor<br/>         Env Review Unit – 4<sup>th</sup> Floor<br/>         520 Lafayette Road<br/>         St. Paul, MN 55155</p>    | <p>3 Paper<br/>         1 CD<br/>         Email to Sara Konrad<br/>         Also 1 CD and email to Karen Kromar</p>                                                                |
| <p><b>Board of Water and Soil Resources</b><br/>         Travis Germundson<br/>         520 Lafayette Rd.<br/>         St. Paul, MN 55155</p>                                                        | <p>1 Paper<br/>         1 CD<br/>         Email to Tom Fischer</p>                                                                                                                 |
| <p><b>Department of Commerce</b><br/>         Susan Medhaug<br/>         85 Seventh Place East, Suite 500<br/>         St. Paul, MN 55101</p>                                                        | <p>Email to Susan Medhaug</p>                                                                                                                                                      |
| <p><b>Environmental Quality Board</b><br/>         Environmental Review Program<br/>         658 Cedar St., Room 300<br/>         St. Paul, MN 55155</p>                                             | <p>1 Paper</p>                                                                                                                                                                     |
| <p><b>Department of Health</b><br/>         Environmental Health Division<br/>         Policy, Planning &amp; Analysis Unit<br/>         625 North Robert Street<br/>         St. Paul, MN 55101</p> | <p>1 CD</p>                                                                                                                                                                        |
| <p><b>State Archaeologist</b><br/>         Scott Affinson<br/>         Fort Snelling History Center<br/>         St. Paul, MN 55111-4061</p>                                                         | <p>Email to Scott Affinson</p>                                                                                                                                                     |
| <p><b>Minnesota Historical Society</b></p>                                                                                                                                                           | <p>1 Paper</p>                                                                                                                                                                     |



|                                                                                                                                                      |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Britta Bloomberg<br>State Historic Preservation Office<br>345 Kellogg Blvd. W., Level A<br>St. Paul, MN 55102                                        | 1 CD            |
| <b>Department of Public Safety</b><br>State Patrol Division<br>Chief<br>444 Cedar Street<br>Town Square - Suite 100A<br>St. Paul, MN 55101           | 1 CD            |
| <b>Department of Transportation</b><br><b>Office of Aeronautics</b><br>Director<br>222 Plato Boulevard<br>St. Paul, MN 55107                         | 1 CD            |
| <b>Department of Transportation</b><br><b>Office of Environmental Services</b><br>Jennie Ross<br>395 John Ireland Blvd., MS620<br>St. Paul, MN 55155 | 2 Paper<br>1 CD |
| <b>Department of Transportation</b><br><b>District 7 - Mankato</b><br>Peter Harff<br>2151 Bassett Drive<br>Mankato, MN 56001                         | 3 Paper<br>1 CD |

### Libraries

|                                                                                                                                                                                    |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Legislative Reference Library</b><br>Carol Blackburn<br>645 State Office Building<br>100 Rev. Dr. Martin Luther King, Jr. Blvd.<br>St. Paul, MN 55155                           | 1 Paper<br>1 CD |
| <b>Technology and Science</b><br>Minneapolis Public Library<br>Attn: Helen Burke<br>Government Documents, 2 <sup>nd</sup> Floor<br>300 Nicollet Mall<br>Minneapolis, MN 55401-1992 | 1 CD            |
| <b>Blue Earth County Library</b><br>Reference and Adult Services                                                                                                                   | 1 Paper<br>1 CD |

|                                                                                      |                                |
|--------------------------------------------------------------------------------------|--------------------------------|
| 100 E. Main St.<br>Mankato, MN 56001                                                 |                                |
| <b>North Mankato Taylor Library</b><br>1001 Belgrade Ave.<br>North Mankato, MN 56003 | 1 Paper<br>Email to Lucy Lowry |
| <b>New Ulm Public Library</b><br>17 North Broadway<br>New Ulm, MN 56073              | 1 Paper                        |

### Local Agencies and Units of Government

|                                                                                                                                            |                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <b>Region Nine RDC</b><br>Reggie Edwards<br>410 E. Jackson St.<br>P.O. BOX 3367<br>Mankato, MN 53002-3367U.S.                              | 1 Paper<br>1 CD<br>Email to:<br>Jack Fitsimmons<br>Brent O'Neil |
| <b>Brown County Engineer</b><br>Wayne Stevens<br>1901 N. Jefferson<br>New Ulm, MN 56073                                                    | 1 Paper<br>1 CD                                                 |
| <b>Brown County Historical Society</b><br>Bob Burgess, Director<br>2 North Broadway<br>New Ulm, MN 56073-1714                              | 1 Paper<br>1 CD                                                 |
| <b>Nicollet County Engineer</b><br>Seth Greenwood<br>1700 Sunrise Dr, PO Box 518<br>Saint Peter, MN 56082-0518                             | 1 Paper<br>1 CD                                                 |
| <b>Nicollet County Environmental Services</b><br>Mandy Landkamer<br>501 S. Minnesota Avenue<br>Saint Peter, MN 56082                       | 1 CD                                                            |
| <b>Nicollet County Soil &amp; Water Conservation District</b><br>Kevin Ostermann<br>424 South Minnesota Avenue<br>St. Peter, MN 56082-2506 | 1 Paper<br>1 CD                                                 |
| <b>Nicollet County Historical Society</b>                                                                                                  | 1 Paper                                                         |

|                                                                                                                               |                                              |
|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| Ben Leonard, Executive Director<br>1851 North Minnesota Avenue<br>St. Peter, MN 56082                                         | 1 CD                                         |
| <b>Blue Earth County Engineer</b><br>Alan Forsberg<br>35 Map Drive, PO Box 3083<br>Mankato, MN 56002-3083                     | 1 CD                                         |
| <b>City of New Ulm</b><br>Steve Koehler, City Engineer<br>100 N. Broadway, PO Box 636<br>New Ulm, MN 56073-0636               | 1 Paper<br>1 CD                              |
| <b>City of New Ulm</b><br>Brian Gramentz, City Manager<br>100 North Broadway<br>P.O. Box 636<br>New Ulm, Minnesota 56073-0636 | 1 Paper<br>Email to Joseph Stadheim          |
| <b>City of Courtland</b><br>Heather McCallum, Administrator<br>300 Railroad Street<br>Courtland, MN 56021                     | 1 Paper                                      |
| <b>City of Nicollet</b><br>Vanessa Drill<br>City Clerk/Treasurer<br>401 Pine Street<br>PO Box 547<br>Nicollet, MN 56074       | 1 Paper                                      |
| <b>City of North Mankato</b><br>Wendell Sande, City Administrator<br>1001 Belgrade Avenue North<br>Mankato, MN                | 1 CD                                         |
| <b>City of Mankato</b><br>Jeff Johnson, City Engineer<br>10 Civic Center Plaza, PO Box 3368<br>Mankato, MN 56002-3368         | Email to:<br>Jeff Johnson<br>Michael McCarty |
| <b>Courtland Township</b><br>Florence Arbes, Supervisor<br>54852 Co. Rd. 21<br>Courtland, MN 56021                            | 1 Paper<br>1 CD                              |

|                                                                                                                        |                         |
|------------------------------------------------------------------------------------------------------------------------|-------------------------|
| <b>Nicollet Township</b><br>Judd Hendrycks, Chairperson<br>43893 520 <sup>th</sup> St.<br>North Mankato, MN 56003-4247 | Email to Judd Hendrycks |
| <b>Belgrade Township</b><br>Tom Zellmer, Supervisor<br>50542 Old River Bluff Rd.<br>North Mankato, MN 56002            | 1 Paper<br>1 CD         |

### Project Advisory Committee

Those individuals who were on the Project Advisory Committee and are not listed above, will receive notification of the availability of the document and will be sent the complete Final EIS on CD if requested.

|                                    |                              |
|------------------------------------|------------------------------|
| Dr. Bruce Beatty - Nicollet County | Cory Johnson - Nicollet      |
| Dick Seeboth - Brown County        | Gary Zellmer - North Mankato |
| Bob Schabert - Courtland           | Joel Albrecht - New Ulm      |
| Perry Wood - MSU Mankato           | Mike Laven - Mankato         |

### Individuals Submitting Substantive Comments on the Draft EIS

Individuals and organizations that submitted substantive comments (i.e. information or concerns not addressed in the Draft EIS) will receive notification of the availability of the document and will be sent the complete Final EIS on CD if requested.

|                                                  |                |
|--------------------------------------------------|----------------|
| Kevin Peyman - Martin County Engineer            | Jim Sutherland |
| Ronald Mortensen - Meeker County Engineer        | Norman Kopp    |
| Gary Schmidt - Nicollet Area Chamber of Commerce | Dale Schweiss  |
| Sheldon Neis - Trunk Highway 15 Coalition        | Jeff Carlstrom |

APPENDIX E

**Aerial Photo Exhibit**

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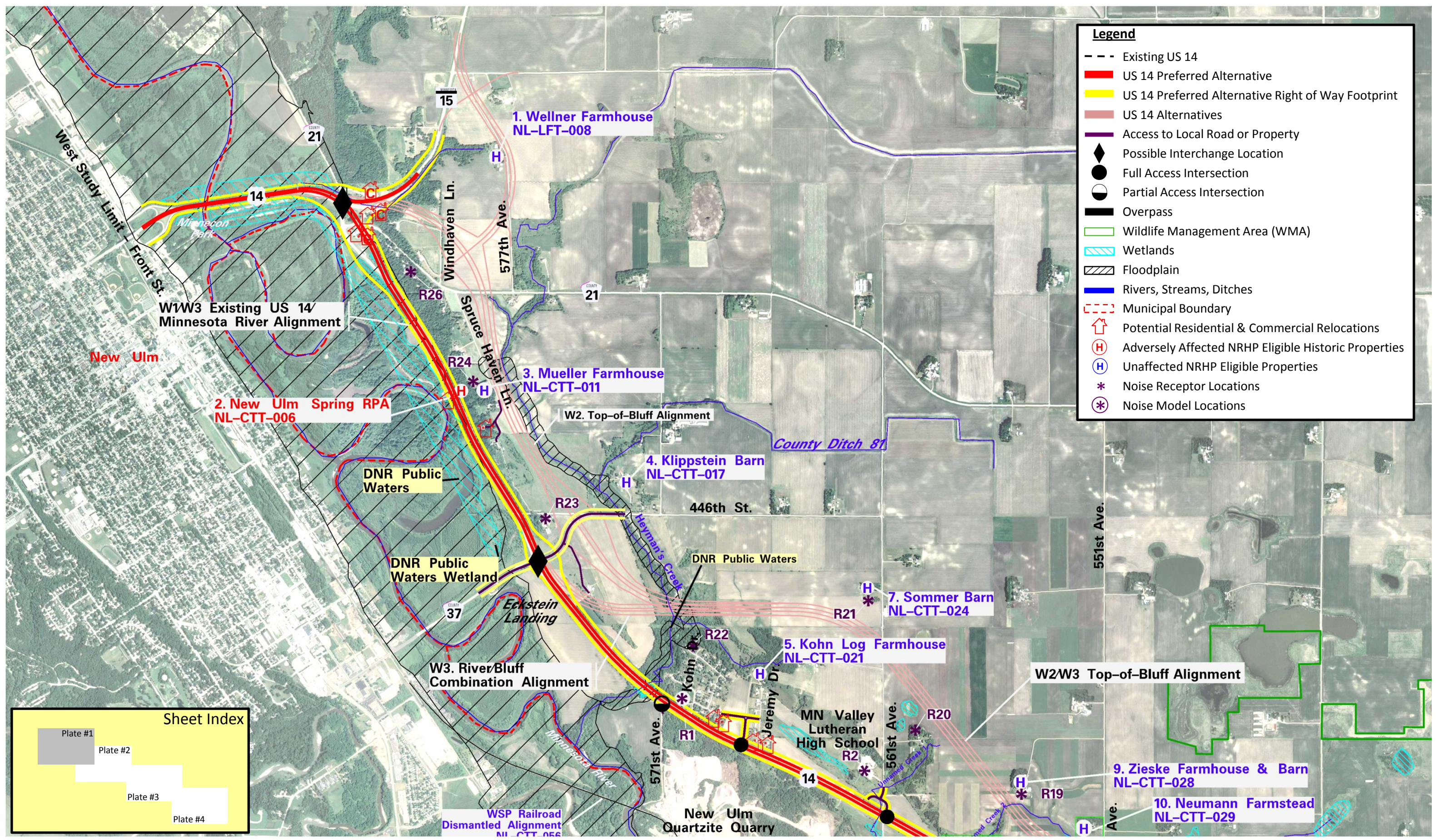
APPENDIX E

# Aerial Photo Exhibit

U.S. Highway 14—New Ulm to North Mankato in Brown and Nicollet Counties, Minnesota

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1. New Ulm Area
2. Courtland Area
3. Nicollet Area
4. North Mankato Area

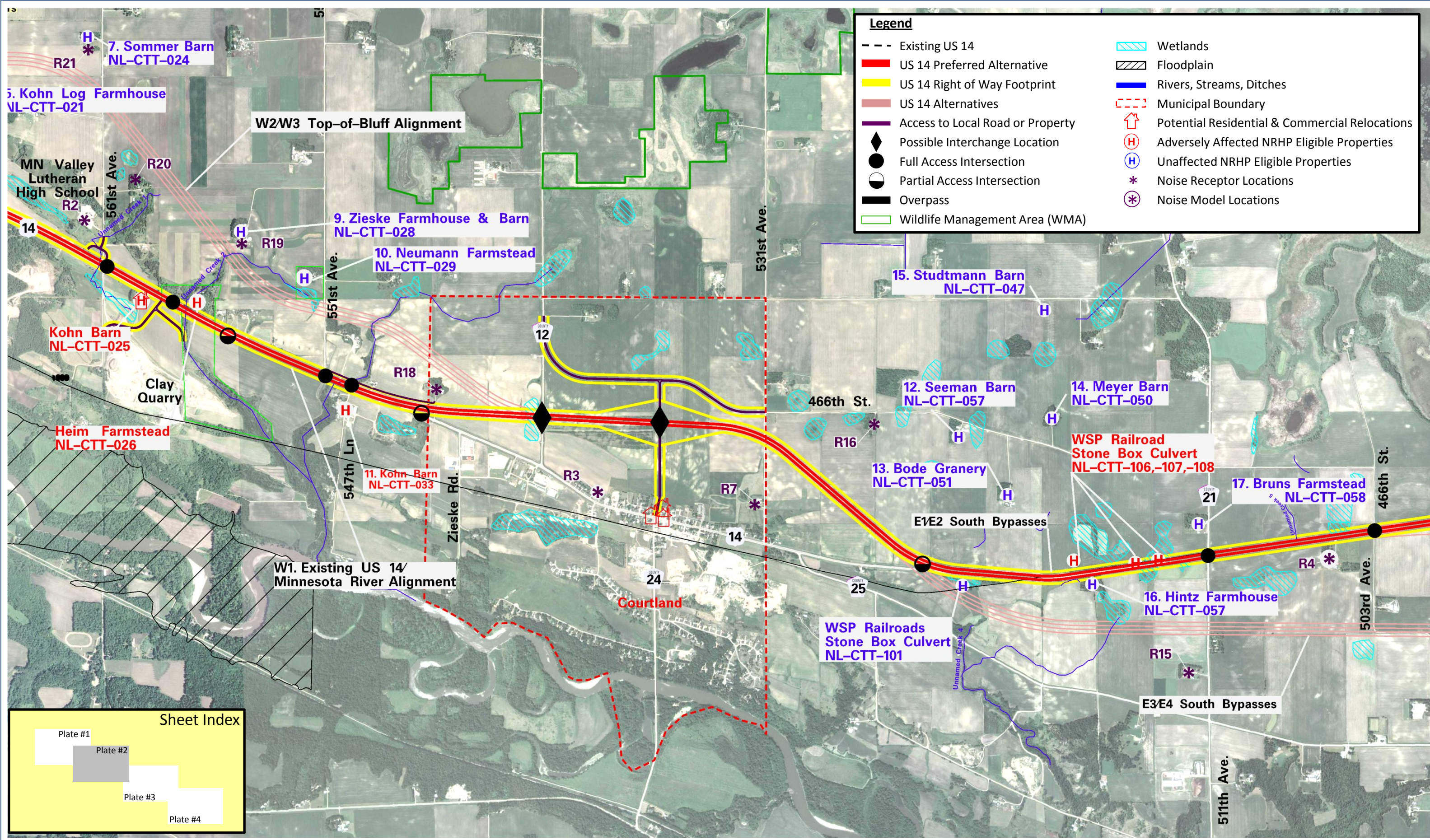


**Legend**

- - - Existing US 14
- █ US 14 Preferred Alternative
- █ US 14 Preferred Alternative Right of Way Footprint
- █ US 14 Alternatives
- █ Access to Local Road or Property
- ◆ Possible Interchange Location
- Full Access Intersection
- ◐ Partial Access Intersection
- ▬ Overpass
- ▭ Wildlife Management Area (WMA)
- ▨ Wetlands
- ▨ Floodplain
- ▬ Rivers, Streams, Ditches
- - - Municipal Boundary
- ↑ Potential Residential & Commercial Relocations
- (H) Adversely Affected NRHP Eligible Historic Properties
- (H) Unaffected NRHP Eligible Properties
- \* Noise Receptor Locations
- (\*) Noise Model Locations

**Sheet Index**

|          |          |
|----------|----------|
| Plate #1 | Plate #2 |
| Plate #3 | Plate #4 |



**Legend**

- - - Existing US 14
- █ US 14 Preferred Alternative
- █ US 14 Right of Way Footprint
- █ US 14 Alternatives
- █ Access to Local Road or Property
- ◆ Possible Interchange Location
- Full Access Intersection
- ◐ Partial Access Intersection
- ▬ Overpass
- ▭ Wildlife Management Area (WMA)
- ▨ Wetlands
- ▨ Floodplain
- █ Rivers, Streams, Ditches
- - - Municipal Boundary
- ↑ Potential Residential & Commercial Relocations
- ⊕ Adversely Affected NRHP Eligible Properties
- ⊖ Unaffected NRHP Eligible Properties
- \* Noise Receptor Locations
- ⊛ Noise Model Locations

**Sheet Index**

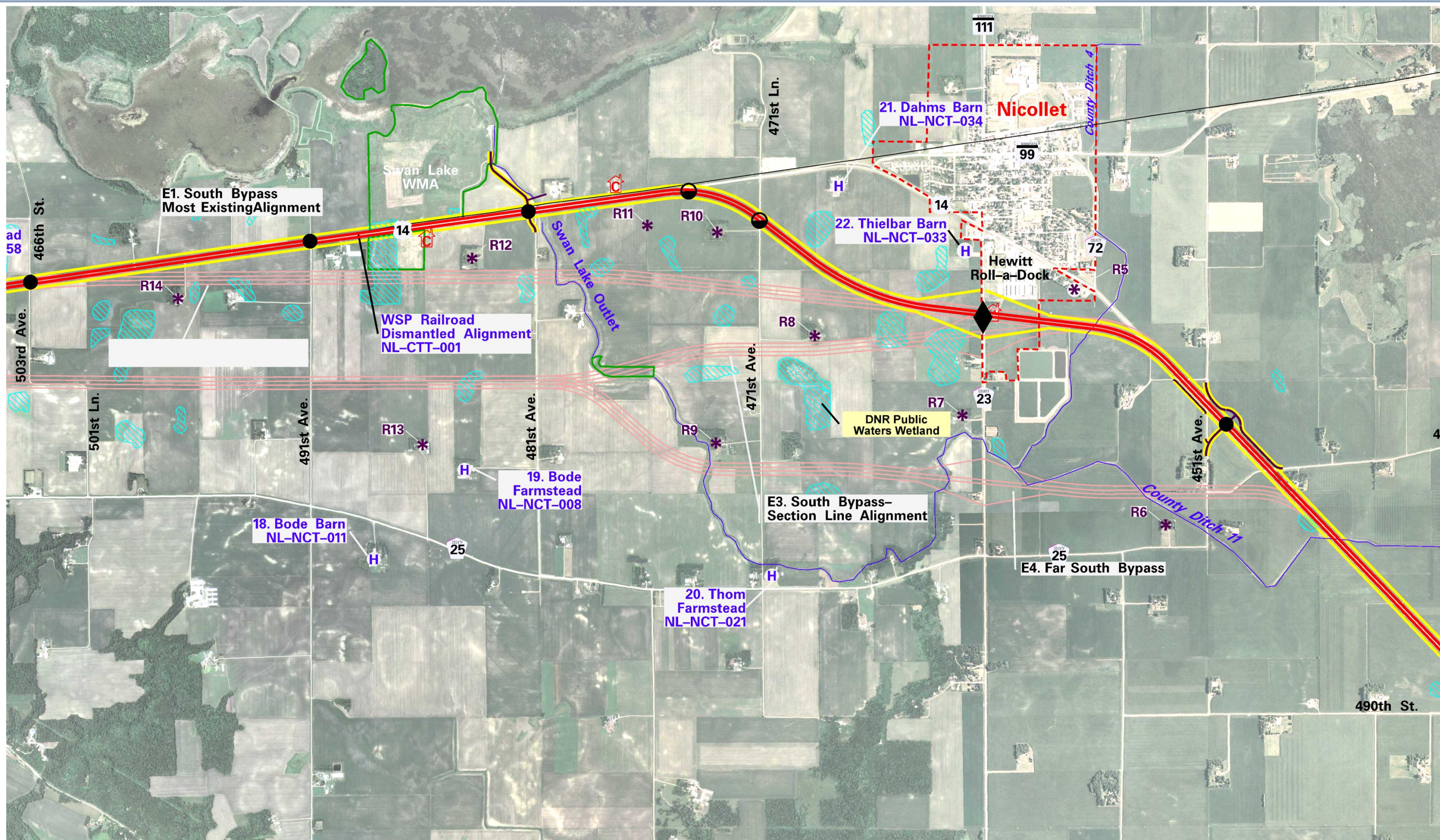
Plate #1

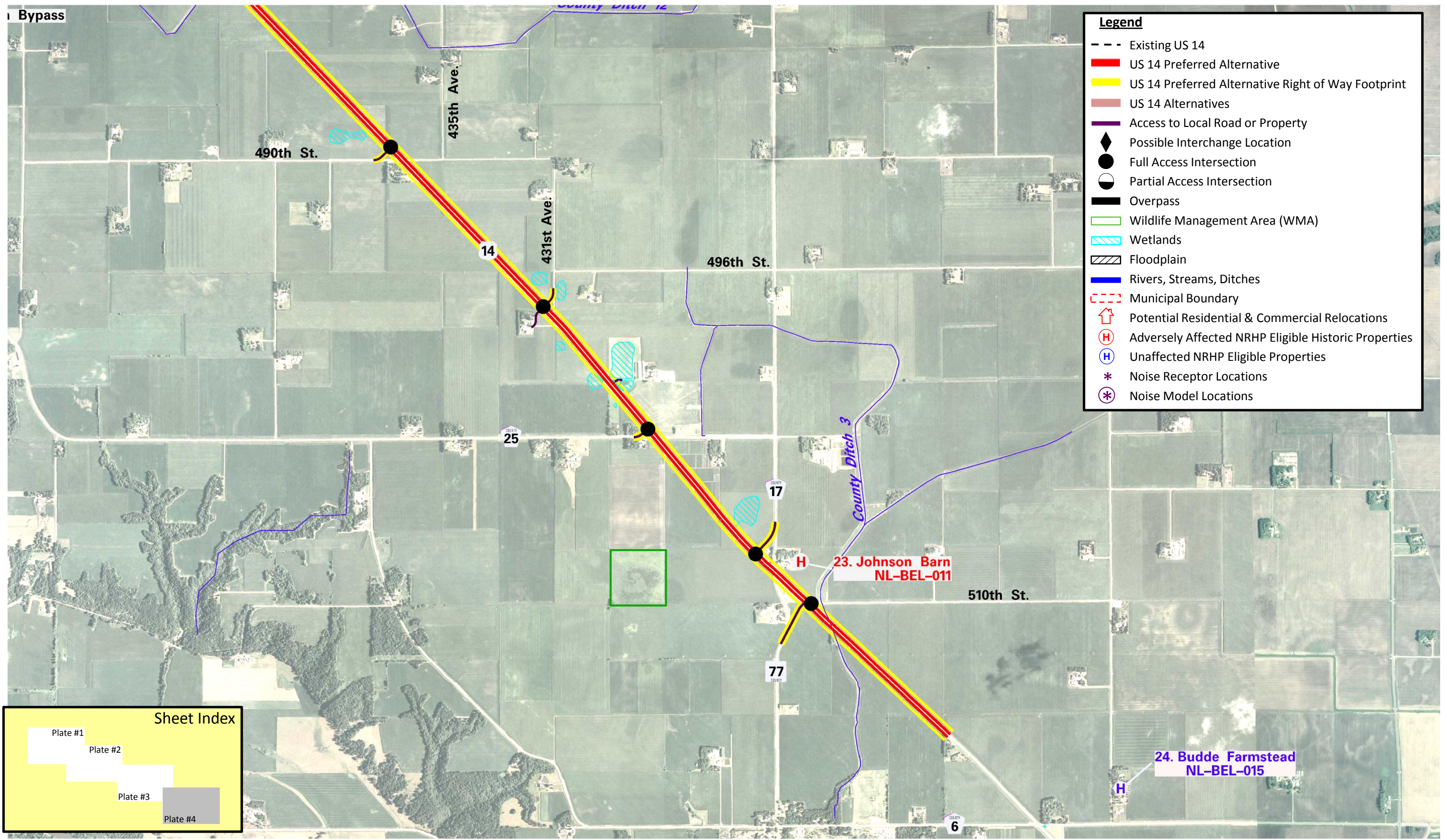
Plate #2

Plate #3

Plate #4







**Legend**

- - - Existing US 14
- █ US 14 Preferred Alternative
- █ US 14 Preferred Alternative Right of Way Footprint
- █ US 14 Alternatives
- █ Access to Local Road or Property
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- (H) Adversely Affected NRHP Eligible Historic Properties
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- (\*) Noise Model Locations

**Sheet Index**

|          |          |
|----------|----------|
| Plate #1 | Plate #2 |
| Plate #3 | Plate #4 |