US 14 EIS from Owatonna to Dodge Center
Final Environmental Impact Statement
and
Final Section 4(f) Evaluation

August 2010

FINAL ENVIRONMENTAL IMPACT STATEMENT
and
FINAL SECTION 4(f) EVALUATION
for
TRUNK HIGHWAY 14
From Interstate 35 to Trunk Highway 56
In Steele and Dodge Counties, Minnesota

Submitted Pursuant to 42 U.S.C. 4332 (2) (c), 49 U.S.C. 303, and Minn. Stat Chap. 116D
by the U.S. Department of Transportation – Federal Highway Administration
and the Minnesota Department of Transportation
State Project Number: S.P. 2001-32

Cooperating Agencies
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency
U.S. Fish & Wildlife Service
U.S. Department of Agriculture

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Comments on the Final EIS should be sent to the Mn/DOT Project Manager (address listed above).

This document is available in alternative formats to individuals with disabilities by calling the Mn/DOT Project Manager at the phone number listed above, or to individuals who are hearing or speech impaired by calling the Minnesota Relay Service at 1-800-627-3529.

Notice to Reader

The Federal Council on Environmental Quality (CEQ) Regulations for implementing the National Environmental Policy Act (40 CFR 1500-1508) place heavy emphasis on reducing paperwork, avoiding unnecessary work, and producing documents that are useful to decision makers and the public. With these objectives in mind, this Final Environmental Impact Statement (EIS) was prepared as a "Condensed Final EIS". This approach avoids repetition of material from the Highway 14 Draft EIS by incorporating, by reference, the Draft EIS. Thus, the Final EIS is typically a shorter document than under the traditional approach; however, it does afford the reader a complete overview of the project and its impacts on the human and natural environment.

The crux of this approach is to briefly reference and summarize information from the Draft EIS that has not changed, and to focus the Final EIS discussion on changes in the project's setting, impacts, technical analysis, and mitigation measures that have occurred since the Draft EIS was circulated. In addition, the condensed Final EIS identifies the preferred alternative, explains the basis for its selection, describes coordination efforts, includes agency and public comments, provides responses to these comments, and presents any findings or determinations required by law or regulation.

An additional copy of the Highway 14 Draft EIS is not being provided to those parties that received a copy of the Draft EIS when it was circulated in October 2008. Copies of the Draft EIS are available for review on the project web site at www.dot.state.mn.us/d6/projects/hwy14 or by special request to Mn/DOT District 6 in Rochester, Minnesota.

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List of Acronyms

ACHP – Advisory Council on Historic Preservation

AADT – Annual Average Daily Traffic

ADT – Average Daily Traffic

APE – Area of Potential Effect

AST – Aboveground Storage Tank

B/C – Benefit-Cost

BMPs – Best Management Practices

CAAA – Clean Air Act Amendments

CCC – Civilian Conservation Corps

CEQ – Council on Environmental Quality

CO – Carbon Monoxide

CR – County Road

CRP – Conservation Reserve Program

CSAH – County and State Aid Highway

CWA – Clean Water Act

dBA – A-weighted Decibel

DCPT – Dodge County Public Transit

DM&E – Dakota, Minnesota, and Eastern

EAW – Environmental Assessment Worksheet

EIS – Environmental Impact Statement

EPA – Environmental Protection Agency

ESA – Environmental Site Assessment

EQB – Environmental Quality Board

FEMA – Federal Emergency Management Agency

FHWA – Federal Highway Administration

FIRM – Flood Insurance Rate Map

FSA – Farm Service Agency

GIS – Geographic Information System

HCADT – Heavy Commercial Average Daily Traffic

HCM – Highway Capacity Manual

I-35 – Interstate 35

IC&E – Iowa, Chicago, and Eastern

IRC – Interregional Corridor

IRIS – Integrated Risk Information System

JD – Jurisdiction Determination

LAWCON – Land and Water Conservation

LGU – Local Government Unit

LOS – Level of Service

LUST – Leaking Underground Storage Tank

MDA – Minnesota Department of Agriculture

MDH – Minnesota Department of Health

MEPA – Minnesota Environmental Policy Act

Mn/DOT – Minnesota Department of Transportation

MNDNR – Minnesota Department of Natural Resources

MNRAM – Minnesota Routine Assessment Method

MOA – Memorandum of Agreement

MPCA – Minnesota Pollution Control Agency

MSL – Mean Sea Level

MSAT – Mobile Source Air Toxics

MVM – Million Vehicle Miles

NAAQS – National Ambient Air Quality Standard

NATA – National Air Toxics Assessment

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NHIS – Natural Heritage Information System

NHS – National Highway System

NPDES – National Pollutant Discharge Elimination System

NRCS – Natural Resource Conservation Service

NRHP – National Register of Historic Places

NWI – National Wetland Inventory

OHW – Ordinary High Water

OMLS – Online Multiple Listing Service

PA – Participating Agencies

PAC – Project Advisory Committee

RCV – Remaining Capital Value

RGU – Responsible Governmental Unit

ROD – Record of Decision

ROW – Right-of-Way

SAFETEA-LU – Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy For Users

SCAT – Steele County Area Transit

SD – Scoping Document

SDD – Scoping Decision Document

SHPO – State Historic Preservation Office

SWPPP – Storm Water Pollution Prevention Plan

SQG – Small Quantity Generator

T & E – Threatened & Endangered

THPO – Tribal Historic Preservation Officer

TMDL – Total Maximum Daily Load

UP – Union Pacific

USACE – United States Army Corps of Engineers

USDOT – United States Department of Transportation

USFWS – United States Fish and Wildlife Service

USGS – United States Geological Service

UST – Underground Storage Tank

VHT – Vehicle Hours Traveled

VMT – Vehicle Miles Traveled

VPD – Vehicles Per Day

WCA – Wetland Conservation Act

WMA – Wildlife Management Area

WPA – Waterfowl Production Area

WSD – Watershed District

1.0 EXECUTIVE SUMMARY

1.1 PURPOSE OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

The proposed reconstruction of Trunk Highway 14 (Highway 14) is considered a Federal Class I Action because of the potential for significant impacts on the natural and physical environment. An Environmental Impact Statement (EIS) is a full disclosure document that discusses the environmental impacts of a proposed Class I Action.

The Highway 14 Draft EIS, which was distributed in October 2008, is incorporated by reference herein and made a part of this Final EIS.

This Final EIS has been prepared in accordance with CEQ Regulation 40 CFR 1503.4 (C), Minnesota Environmental Quality Board MR 4410, and Minnesota Statutes 116D, which provide a methodology for preparing a "Condensed" Final EIS. This approach will focus on the preferred alternative, additional technical analysis completed since the Draft EIS, and mitigation commitments for potential impacts. Information from the Draft EIS that has not changed is briefly summarized, and the reader is referred to the Draft EIS.

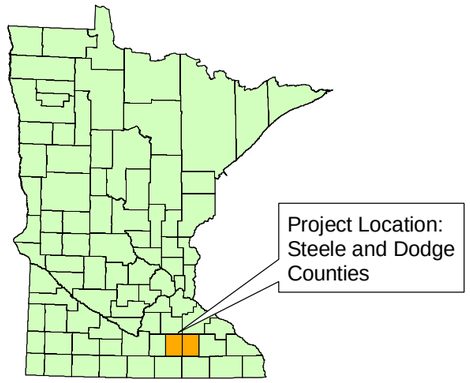
1.2 DESCRIPTION OF THE PROPOSED ACTION

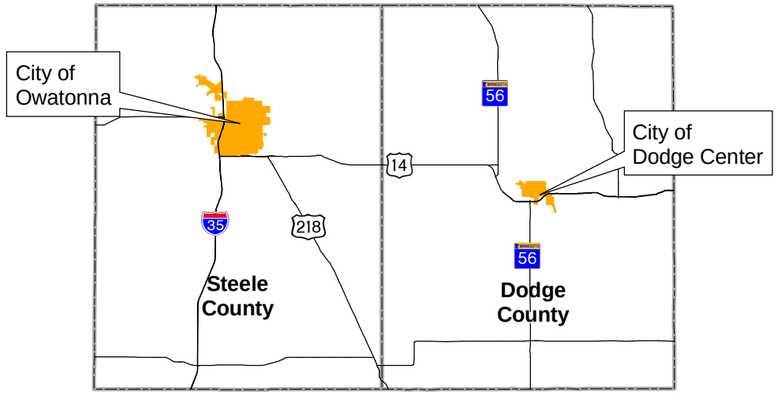
The Minnesota Department of Transportation (Mn/DOT), in cooperation with the Federal Highway Administration (FHWA), proposes improvements to Highway 14 in Steele County and Dodge County, Minnesota. The project limits extend approximately 17.9 miles from Interstate 35 (I-35) in the City of Owatonna, Steele County to Highway 56 in the City of Dodge Center, Dodge County, Minnesota (see Figure 1). The improvements include highway reconstruction and capacity expansion of Highway 14 as a rural four-lane divided freeway section, including construction of 12.3 miles on a new alignment south of the Dakota, Minnesota and Eastern (DM&E) Railroad corridor.

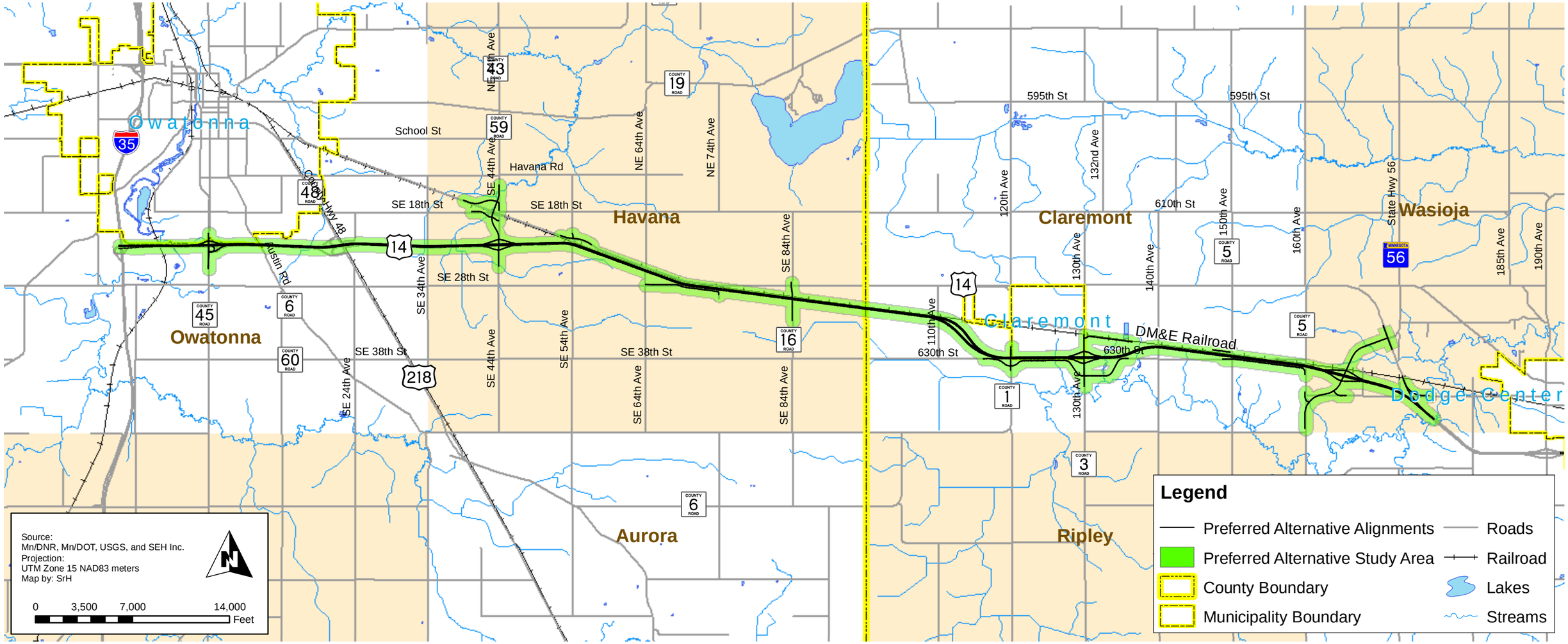
1.3 PURPOSE AND NEED OF THE HIGHWAY 14 IMPROVEMENT PROJECT

The purpose of this process is to identify an environmentally and socially sensitive alternative for a transportation system improvement consistent with meeting the identified needs presented below. Each of these needs is described further in Draft EIS Section 2.3 ("What is the Need for the Proposed Action?").

- Maintain highway mobility under future traffic conditions
- Improve travel safety
- Enhance system continuity by completing a four-lane highway facility along Highway 14
- Foster economic growth along the corridor







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HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Project Location Map
Figure 1

1.4 ALTERNATIVES

The Highway 14 Draft EIS, approved in October 2008, considered two primary build alternatives and the No-Build Alternative. The alternative evaluation and screening process was based on an assessment of how each alternative addresses the purpose and need objectives, as well as a corridor level assessment of potential social, economic, and environmental impacts. Following the Draft EIS comment period, a review of the public and agency comments was conducted. Based on the comments and supporting analysis in the Draft EIS, Alternative 3 – South Bypass Alignment with Claremont Bypass Option 4 was identified as the preferred alternative. In addition, following an extensive public involvement process, interchange options were identified at County Road 45 in the City of Owatonna and County Road 43 in Havana Township. At County Road 45 a modified folded diamond interchange was identified and at County Road 43 a standard diamond at the existing Highway 14/County Road 43 intersection was identified as the preferred design options.

Alternative 3 was chosen for reasons including, but not limited to, the following:

- Provides the most efficient travel through the study area with a limited access high-speed route and a shorter corridor distance (approximately 17.9 miles) compared to other considered alternatives (approximately 18.6 miles).
- Provides a better long-term solution for local operational issues. The existing highway alignment has the ability to serve as a parallel route for local and agricultural related traffic. This eliminates the necessity to upgrade other existing township/county roads to serving these needs.
- Improves travel safety by constructing a four-lane freeway section south of the railroad corridor. This reduces several existing public and private at-grade railroad crossings.
- Is consistent with the design of Highway 14 both east and west of the study area. It will be a four-lane freeway section that remains south of the railroad corridor.
- Inclusion of Claremont South Bypass Option 4 avoids dividing the City of Claremont and provides for desirable future land development opportunities.
- The social, economic, and environmental impacts including but not limited to architectural and archaeological resources, Section 4(f) properties, wetlands, noise, and farmland are not substantially greater or less than other alternatives/options considered.
- It has the highest benefit-cost ratio indicating the benefits of the project outweigh the costs.
- It has a lower estimated construction and right-of-way costs.
- It received the greatest amount of support from the public and local governmental units, with the inclusion of Claremont Bypass Option 4.

1.5 POTENTIAL ENVIRONMENTAL EFFECTS

A summary of the potential beneficial and adverse effects associated with the preferred alternative is presented in Table 1 (on the following page).

Avoidance and minimization measures have been explored to the greatest extent possible without compromising the safety of the improvements. For additional information regarding the impacts shown in Table 1, the reader is referred to Section 4.0 of this document and Section 4.0 of the Draft EIS.

1.6 PROJECT COST AND FUNDING SOURCE

Construction of the Highway 14 Improvement Project will be funded from both federal and state sources. It is anticipated that federal funds will be the primary source of construction funding (80 percent) with a 20 percent state match. Cost estimates for the preferred alternative are presented in the Table below. The estimate includes construction (pavement and structures) and right of-way acquisition costs.

Alternative	Construction Costs[1]	Right-of-Way Acquisition and Relocation Costs	Total Costs[2]
Preferred Alternative	$141,500,000	$9,700,000	$151,200,000

[1] Includes four-lane roadway, local/frontage road connections, and other mitigation costs.

[2] Improvements to state highways can often result in the jurisdictional transfer of existing highways and other local roads. Under the preferred alternative, the existing highway alignment north of the railroad corridor would remain in place and would become part of the county road system (turnback to both Dodge County and Steele County). Other local roadway jurisdictional transfers may occur as part of the project. The cost estimate does not include the costs associated with jurisdictional transfers.

1.7 PERMITS, APPROVALS, AND CONCURRENCE

It is anticipated that federal, state, and local permits/approvals/concurrence may be required for the proposed action. The following actions will likely be required prior to construction of the preferred alternative:

- Adequacy Determination from Mn/DOT
- Record of Decision from FHWA
- Section 404 Permit from the United States Army Corps of Engineers (USACE)
- Section 401 Water Quality Certification from Minnesota Pollution Control Agency (MPCA)
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit from the MPCA
- Noise Exemption from the MPCA
- Minnesota Wetland Conservation Act (WCA) from Mn/DOT
- Municipal Approval from the City of Claremont and the City of Owatonna
- Public Waters Work Permit from the Minnesota Department of Natural Resources (MNDNR)
- Orders for crossing three drainage ditches will be obtained from requisite ditch authorities

Table 1– Impact Summary

Subject	Preferred Alternative Impacts	Proposed Mitigation
SOCIAL AND COMMUNITY	• Minimal impacts to community resources are anticipated • May have indirect effects to homes and businesses as a result of changes in access	None proposed
ENVIRONMENTAL JUSTICE	No disproportionately high or adverse effects to minority or low-income populations in the project area will result from the preferred alternative	None proposed
RIGHT-OF-WAY/RELOCATION		
Potential acquisitions/relocations	17 residences/farmsteads	Acquisition and relocation will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
Additional right-of-way, acres	578 acres of new right-of-way	Acquisition and relocation will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.
TRANSPORTATION	• Improves traffic operations and travel safety • Eliminates several existing public and private at-grade railroad crossings	None proposed
SECTION 4(F)	The preferred alternative will directly impact three properties that contain historic structures that have been determined to be eligible for listing on the National Register of Historic Places.	A signed Memorandum of Agreement (MOA) has been executed that identifies appropriate mitigation measures for each impacted property.
INDIRECT AND CUMULATIVE EFFECTS	• Potential indirect impacts include economic impacts of relocating existing residences; potential for changes in land development patterns (subject to local government control); and short-term economic benefit of increased private sector income during construction • Overall cumulative effects are expected to be minimal	None proposed
FARMLAND	• The preferred alternative will impact approximately 600 acres of land that has been classified as prime, unique, and/or of statewide importance based on the underlying soil types. • The preferred alternative will create the severance/triangulation of approximately twelve farms.	• All land required for the preferred alternative will be acquired in accordance with the Uniform Relocation and Real Property Acquisition Policies Act. • Further refinements to the preferred alternative will be considered as part of the final design that may reduce potential farm severances.
NOISE	Many residential locations will experience noise beyond existing levels, some exceeding Minnesota standards	Construction of a noise wall is proposed for one area located north of Highway 14 and east of Steele County Road 45
WETLANDS	• 7.7 acres of wetlands and 8.2 acres of ditches will be filled for a total of 15.9 acres • Wetlands were identified and mapped in the field with the assistance of MNDNR staff	Replaced according to WCA and USACE regulations
FLOODPLAINS	• The preliminary layout of the preferred alternative includes the replacement of the single span highway bridges over the Straight River in their existing location. Slight design modifications to accommodate wider shoulders are planned for the replacement bridges. • The preferred alternative is not expected to cause substantial floodplain impacts.	None proposed
SURFACE WATER DRAINAGE AND WATER QUALITY	• Based on the preliminary design, the preferred alternative will increase the impervious surface area of Highway 14 by approximately 123 acres.	• BMPs will be utilized to minimize temporary water quality impacts from erosion associated with the replacement of the bridges over the Straight River • Proposed permanent water quality ponding locations are shown in Figures A1 through A8 in Appendix A • BMPs to be determined during final design phase • Where necessary, increase capacity of existing culverts to accommodate drainage demand.
GEOLOGY/GROUNDWATER	It is anticipated that the preferred alternative will require the abandonment of private wells and impact agricultural drain tile systems as a result of right-of-way acquisitions and	• Drain tile systems will be maintained during and after construction.

Subject	Preferred Alternative Impacts	Proposed Mitigation
	relocations.	
STATE/FEDERAL THREATENED AND ENDANGERED SPECIES	Five mesic prairie remnants located along the DM&E rail line or within road ditches will be impacted. The remnant prairie areas were identified and mapped in the field with the assistance of MNDNR staff.	Construction impacts will be minimized in these prairie areas and areas outside the construction limits will be fenced prior to construction. Coordination between the MNDNR and Mn/DOT will continue through the project development process.
ARCHITECTURAL/HISTORIC & ARCHEOLOGICAL RESOURCES	The preferred alternative will adversely impact five properties eligible for listing on the National Register of Historic Places (NRHP). Adverse effects include direct (e.g., right-of-way acquisition) and/or indirect audible/visual impacts.	A signed MOA has been executed that identifies mitigation measures for each impacted property.
CONTAMINATED PROPERTIES	22 medium/high risk sites have been identified in proximity to the preferred alternative	Each site will be further evaluated prior to construction to determine the potential for contamination and, if required, appropriate remediation, disposal or other procedures.

1.8 WHAT TYPE OF COORDINATION IS BEING CONDUCTED?

Mn/DOT is committed to public and agency involvement/outreach at all levels in decision-making related to the Highway 14 Improvement Project. Mn/DOT has engaged community organizations; area property owners; business owners; residents; and local, county, regional, state, and federal agencies in the development of the project. See Draft EIS Section 7.0 – Coordination for additional information.

Since publication of the Draft EIS, public involvement activities have included:

- Draft EIS Public Hearings
- Project Advisory Committee (PAC) Meetings
- City Council and County Board Workshops
- Public Open House Meeting
- Project Newsletters
- Project Website Updates

Informational and coordination meetings have also been held with representatives from local, state, and federal agencies with approval and/or permit authority to discuss appropriate analysis methodology for different resource areas.

1.9 ARE THERE ANY MAJOR PROPOSED ACTIONS BY OTHERS?

Currently, there are three major projects being proposed by other agencies within the Highway 14 project area.

Based on an EIS completed in the late 1990s, the segment of Highway 14 located immediately west of the project area is planned to be reconstructed on a new alignment extending straight west from the current I-35/Highway 14 interchange on the south side of Owatonna to the City of Waseca. The new four-lane freeway is programmed for construction between 2010 and 2014. This four-lane freeway section west of I-35 will enhance the mobility of Highway 14 between Mankato and Rochester.

Within the project area, the Dakota, Minnesota and Eastern (DM&E) Railroad has received approval to construct/reconstruct new and existing rail line to reach the coal mines of Wyoming's Powder River Basin. The DM&E rail line runs east-west within the project area and currently crosses Highway 14 at two locations. The proposed DM&E expansion project would allow operation of unit coal trains along the reconstructed route through the states of Minnesota, South Dakota, and Wyoming.

Local economic development within the project area includes the Al-Corn Clean Fuels (Al-Corn) facility. Al-Corn has received approval to expand its existing dry-mill ethanol production facility. The facility is located on a 40-

acre rural parcel south of Highway 14 and west of the City of Claremont. The proposed facility expansion would occur within the existing property boundary.

Mn/DOT is aware of a regional utilities study being conducted by CapX2020 to determine future customer demands and possible new/expanded routes for electrical transmission lines. One potential utility corridor has been identified through portions of Dodge County that would include areas within the Highway 14 study area. The latest information obtained from the CapX2020 website indicates these potential utility improvements are in the planning stages and would need to complete several approvals including environmental documentation and permits.

1.10 PROJECT SCHEDULE

Completion Date	Task/Activity
Fall 2006	Federal Notice of Intent
November 2006	Release Scoping Document/ Draft Scoping Decision Document for public comment, begin the 30-day comment period
December 2006	Public Scoping Meeting/Open House
March 12, 2007	Final Scoping Decision Document
March 2007	State EIS Preparation Notice
October 2008	Distribute Draft EIS for agency/public comment, start of Draft EIS comment period
November 2008	Public Hearings on Draft EIS
January 2009	Identification of Preferred Alternative
May 2010	Prepare and Distribute Final EIS
Summer 2010	Mn/DOT Adequacy Determination
Summer 2010	Federal Highway Administration Record of Decision
After Summer 2010	Official Map/Municipal Consent/Right-of-Way Acquisition
Not currently scheduled	Construction (dependent upon funding availability)

1.11 ARE THERE UNRESOLVED OR CONTROVERSIAL ISSUES?

There are no unresolved or controversial issues with the Highway 14 Improvement Project.

2.0 PURPOSE AND NEED FOR PROPOSED ACTION

2.1 DESCRIPTION OF PROJECT

The Highway 14 project corridor is located in southeastern Minnesota. The project corridor traverses west to east through Steele County and Dodge County, Minnesota (see Figure 1). The project limits extend approximately 17.9 miles from I-35 in the City of Owatonna, Steele County to Highway 56 near the City of Dodge Center in Dodge County (see Figure 1). The proposed improvements include expanding this segment of Highway 14 to a four-lane divided freeway section, including 12.3 miles on a new alignment.

Grade-separated interchanges have been identified at five locations within the study area. These access locations were identified because they provide reasonable access to/from the regional system and to/from the local transportation network.

- Steele County State Aid Highway 45 – will be reconstructed with a modified folded diamond configuration
- Highway 218 – no design changes to existing folded diamond interchange
- Steele County State Aid Highway 43 Area – new standard diamond interchange
- Claremont Area – new standard diamond interchange at Dodge County State Aid Highway 3
- Highway 56 Area – new standard diamond interchange configuration will connect Highway 56 and Dodge County State Aid Highway 5 with Highway 14

2.2 RESPONSIBLE GOVERNMENTAL UNITS

Mn/DOT is the Responsible Governmental Unit for the development of and the environmental documentation for the Highway 14 Improvement Project. Mn/DOT is managing the project with the FHWA as a Joint Lead Agency. The contact persons for the project are:

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2.3 FUNDING AND SCHEDULE

Funding

Federal funds are anticipated to be the primary source of construction funding (80 percent) with a 20 percent state match. The total cost for the preferred alternative is estimated to be $151.2 million.

Table 2 – Preliminary Cost Estimates ($2009)

Alternative	Construction Costs[1]	Right-of-Way Acquisition and Relocation Costs	Total Costs[2]
Preferred Alternative	$141,500,000	$9,700 000	$151,200,000

[1] Includes four-lane roadway, local/frontage road connections, and other mitigation costs.

[2] Improvements to state highways can often result in the jurisdictional transfer of existing highways and other local roadways. Under the preferred alternative, the existing highway alignment north of the railroad corridor would remain in place and would become part of the county road system (turnback to both Dodge County and Steele County). Other local roadway jurisdictional transfers may occur as part of the project. The cost estimate does not include the costs associated with jurisdictional transfers.

Project Schedule

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Summer 2010	Federal Highway Administration Record of Decision
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Not currently scheduled	Construction (dependent upon funding availability)

2.4 PURPOSE OF THE FINAL ENVIRONMENTAL IMPACT STATEMENT

The National Environmental Policy Act (NEPA) of 1969 requires that social, economic, and environmental considerations be included in the planning of

projects that receive federal funding. The proposed improvement to Highway 14 is considered a Federal Class I Action because of its potential for significant impacts to the natural and physical environment. The EIS is a full disclosure document that discusses the environmental impacts of a proposed Class I Action. This Highway 14 Final EIS identifies the preferred alternative, describes changes in anticipated impacts from the Draft EIS, and outlines mitigation measures and commitments.

This Final EIS has been prepared as part of the federal NEPA process and state environmental review process to fulfill requirements of both 42 USC 4321 et. Seq. and Minnesota Rules Chapter 4410.2300.

2.5 PURPOSE AND NEED FOR PROPOSED ACTION

Project Purpose

The purpose of this project is to identify an environmentally and socially sensitive preferred alternative for a transportation system improvement consistent with meeting the identified needs presented below.

Project Need

A detailed description of the project purpose and need objectives was presented in the Highway 14 Draft EIS – Section 2.3, which has been incorporated by reference into this Final EIS. The preferred alternative is consistent with meeting the identified needs presented below:

- Maintain Mobility – Forecast daily traffic demand indicates the capacity of the existing two-lane highway will be exceeded prior to the design year (year 2030). This will become a more problematic situation for vehicles attempting to enter onto or cross over the highway. As the traffic continues to increase, periods of congestion will become increasingly common. Traffic demand by 2030 will far exceed the highway's capacity and severely degrade travel conditions in the area.

  This segment of Highway 14 has a relatively high percentage of truck traffic (approximately 11 percent), which can result in safety concerns as traffic volumes increase and more conflicts occur between these slower moving vehicles accessing, exiting, and/or crossing over a highway at an at-grade intersection. The percentage of truck traffic is anticipated to increase at the time the four-lane section of Highway 14 between Owatonna and Rochester is completed. This is because trucks traveling southbound on I-35 that are destined to locations east of Rochester on I-90 will have an alternative route (and shorter distance) along Highway 14 rather than continuing south of Owatonna on I-35 to access I-90 at the City of Albert Lea. Furthermore, agri-business along the corridor is anticipated to increase, which will result in additional truck traffic.

- Improve Safety – Improving travel safety is a priority objective of Mn/DOT in managing the state trunk highway system. Over a five-year period (2001-2005), this segment of Highway 14 had 195 reported crashes, and 9 of those crashes resulted in fatalities. The distribution of

crashes along the Highway 14 corridor between Owatonna and Dodge Center does not lend itself to isolated safety improvements. Therefore, the proposed improvement needs to address safety conditions along the entire corridor rather than localized improvements (specific intersections). One of the most critical safety concerns within Mn/DOT District 6 is the existing at-grade Highway 14 crossing of the DM&E Railroad in Havana Township, Steele County. Minnesota Rules 8830.2740 provides criteria for considering grade separation of at-grade railroad and roadway crossings. The existing Highway 14 crossing of the DM&E rail line in Steele County currently meets and/or exceeds several of these criteria. Furthermore, the Federal Railroad Administration, FHWA, and Mn/DOT have established initiatives to eliminate the number of at-grade railroad crossings on the National Highway System and all roadways.

- Enhance System Continuity – Upon completion of the planned reconstruction of Highway 14 between Waseca and Interstate-35, the segment from Owatonna to Dodge Center (the subject of this EIS) will be the only non four-lane section of Highway 14 between the City of Mankato and the City of Rochester.
- Foster Economic Growth – Goods and services are moved to and through the project area at a growing rate. Therefore, safe and reliable travel along and across the corridor will promote greater economic development and employment opportunities for the local and regional economies.

3.0 ALTERNATIVES

3.1 PREFERRED ALTERNATIVE

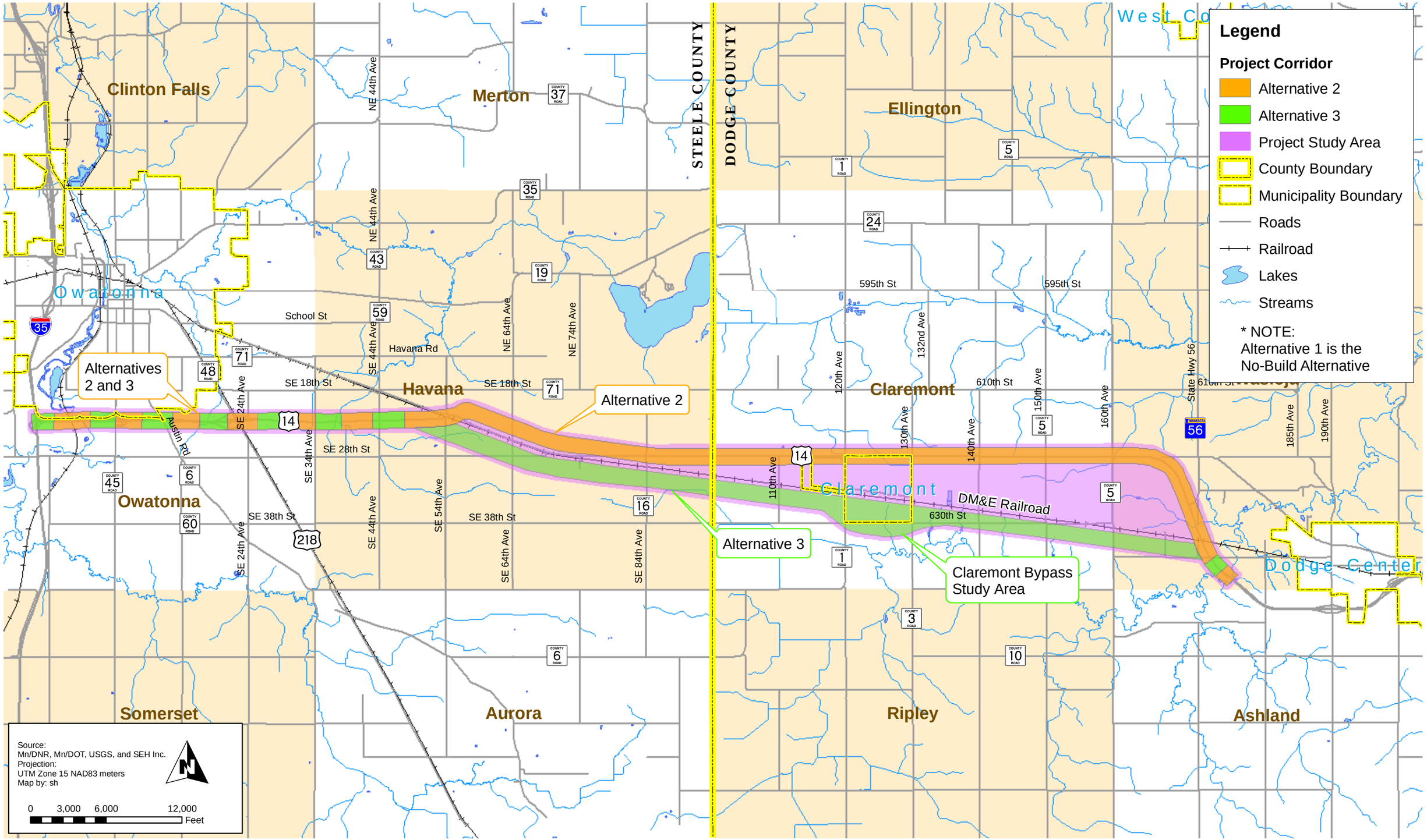
The Highway 14 Draft EIS, dated October 2008, considered two primary build alternatives and the No-Build Alternative. The build alternatives are shown in Figure 2 of this Final EIS. In addition, the preliminary layout of the preferred alternative (Alternative 3 from the Draft EIS) is shown in Figures A1 through A8 in Appendix A. Design options near Steele County Road 45, Steele County Road 43 (formally County Road 59), and the Claremont South Bypass were also considered in the Draft EIS.

The alternative evaluation and screening process was based on an assessment of how each alternative addresses the purpose and need objectives of the project, as well as a corridor level assessment of potential social, economic, and environmental impacts. Following the Draft EIS comment period, a review of the public and agency comments was conducted. Based on the comments and supporting analysis in the Draft EIS, Alternative 3 – South Bypass Alignment with Claremont Option 4 was identified as the preferred alternative. Furthermore, additional public and agency coordination (i.e. Steele County, City of Owatonna, Havana Township, and Owatonna Township) helped determine the preferred interchange options at both Steele County Road 43 (Havana) and Steele County Road 45 (Owatonna).

What are the Reasons for Selecting the Preferred Alternative?

Alternative 3 was identified as the preferred alternative for reasons including, but not limited to, the following:

- Provides the most efficient travel through the study area with a limited access high-speed route and a shorter corridor distance (approximately 17.9 miles) compared to other considered alternatives (approximately 18.6 miles).
- Provides a better long-term solution for local operational issues. The existing highway alignment has the ability to serve as a parallel route for local and agricultural related traffic. This eliminates the necessity to upgrade other existing township/county roads to serving these needs.
- Improves travel safety by constructing a four-lane freeway section south of the railroad corridor. This reduces several existing public and private at-grade railroad crossings.
- Is consistent with the design of Highway 14 both east and west of the study area. It will be a four-lane freeway section that remains south of the railroad corridor.



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HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Draft EIS Alternatives
Figure 2

- Inclusion of Claremont South Bypass Option 4 avoids dividing the City of Claremont and provides for desirable future land development opportunities.
- The social, economic, and environmental impacts including but not limited to architectural and archaeological resources, Section 4(f) properties, wetlands, noise, and farmland are not substantially greater or less than other alternatives/options considered.
- It has the highest benefit-cost ratio indicating the benefits of the project outweigh the costs.
- It has a lower estimated construction and right-of-way costs.
- It received the greatest amount of support from the public and local governmental units, with the inclusion of Claremont Bypass Option 4.

Description of Preferred Alternative

The preferred alternative (Alternative 3 from the Draft EIS) involves relocating a portion of Highway 14 to a new alignment south of the DM&E Railroad corridor that runs east-west throughout the eastern two-thirds of the project area (see Figure 1 on page 2 and Figures A1 through A8 located in Appendix A). Beginning from the western termini, the preferred alternative utilizes the existing Highway 14 alignment from Interstate-35 to a point just west of the existing at-grade highway and railroad crossing in Steele County. At this point the preferred alternative continues east towards Claremont and Dodge Center on a new alignment that primarily parallels the southern edge of the railroad corridor. The new alignment swings away from the railroad corridor near the west limits of Claremont. It then swings back to the north again on the east side of Claremont and continues to parallel the railroad corridor to the eastern project termini near Dodge Center. The total length of Highway 14 construction for the preferred alternative is approximately 17.9 miles.

Turnback

Under the preferred alternative, the existing highway alignment north of the DM&E Railroad corridor would remain in place and would become part of the county road system (turnback to both Dodge County and Steele County) and would primarily serve as a local parallel roadway to Highway 14. Other local roadway jurisdictional transfers may occur as part of the project.

Access

This segment of Highway 14 is proposed to be a high speed, rural freeway. Grade-separated interchanges are proposed to be constructed and/or maintained at five key locations (Steele County Road 45 in Owatonna, Steele County Road 48/Highway 218, Steele County Road 43, Dodge County Road 3 in Claremont, and Highway 56/Dodge County Road 5 near Dodge Center). The construction of frontage/backage roads adjacent to the highway is

included as part of the preferred alternative in several locations to provide access to private property and/or to re-establish local roadway connections.

Two additional grade-separated crossings (overpasses) are proposed at Steele County Road 16 in Havana Township and Dodge County Road 1 in Claremont Township. The objective of these grade-separated crossings is to maintain continuity of the local transportation system, while not compromising safety and mobility along Highway 14.

Detailed Alignment Definition

Additional detail of the preferred alternative at four areas where sub-alternatives were considered in the Draft EIS along the preferred alternative is provided below.

Steele County Road 45 Area

Throughout the City of Owatonna and Owatonna Township, the preferred alternative follows the existing Highway 14 alignment. It is a rural four-lane divided section with a depressed center grass median.

The highway bridges over the Union Pacific Railroad and over the Straight River will be replaced with the Highway 14 reconstruction. The location of these bridges is proposed to remain the same. Slight design modifications to accommodate wider shoulders are planned for the replacement bridges.

The existing grade-separated interchange at Steele County Road 45 will be reconstructed as part of the preferred alternative. Following extensive review, analysis, and local input of interchange design configurations, a modified folded diamond interchange was determined the best solution for reconstructing the interchange at Highway 14 and Steele County Road 45. The replacement bridge over Highway 14 will be constructed to accommodate future traffic volumes along Steele County Road 45. The type of intersection control (conventional intersection with stop control or roundabouts) was evaluated for the ramp terminal intersections. The Traffic Assessment (see Section 3.2 of this EIS) states either intersection control option could be implemented and provide acceptable safety and operational conditions at the intersections. The social, economic, and environmental effects of the intersection control options are nearly identical. The improvements associated with both options could be accommodated within existing county and state right-of-way. For purposes of this EIS, conventional intersections with stop control at County Road 45 was selected to be analyzed in the Final EIS.

The preferred alternative also includes closure of existing Steele County Road 6/Austin Road and Highway 14 right-in/right-out intersections as part of the proposed freeway design. Traffic currently using these limited access intersections will be routed to other roadways that connect to either the Steele County Road 45 interchange or the Highway 218 interchange. No improvements to the Highway 218 interchange are proposed under the preferred alternative.

Steele County Road 43 Area

Near the intersection of SE 34th Street, the existing Highway 14 rural four-lane section drops down to a rural two-lane section. The preferred alternative would continue the rural four-lane divided section (with a depressed center grass median) east on the existing alignment until just before the at-grade DM&E Railroad crossing. Here the highway alignment would remain south of the railroad corridor on a new alignment.

Following the Draft EIS comment period, a series of interchange options for the County Road 43 Area were further refined and considered as part of developing the preliminary layout. Steele County and Havana Township independently hosted a public meeting to further receive input from area residents and landowners. Mn/DOT worked collaboratively with the County and Township to identify the best local interchange option that would minimize impacts and maintain adequate connections to local roadways. The preferred alternative includes construction of a standard diamond grade-separated interchange at the existing Steele County Road 43 intersection. This interchange option was identified as the preferred option by Steele County in August 2009.

Steele County, in cooperation with Mn/DOT, Owatonna, and Havana Township, are currently conducting the Owatonna North and East Beltline and Highway 14 Connection Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) that will further consider local roadway improvements in this area of the County. The future federal/state environmental review findings and recommendations of the County EA/EAW would take the place of those contained in this EIS regarding interchange and local roadway connections in this area.

Existing Highway 14 at-grade intersections with SE 34th Street, County Road 43, and SE 54th Street would be closed as part of the proposed freeway design. Traffic currently using these intersections would likely be redirected to other local roadways (i.e. SE 28th Street, County Road 180, and SE 18th Street), which would ultimately provide a connection to the new County Road 43 interchange.

Claremont Area

Near the City of Claremont, the preferred alternative swings south approximately ½-mile and utilizes the 630th Street corridor for a short segment (Claremont Bypass Option 4 from the Draft EIS). The location of this bypass alignment around Claremont was identified taking into consideration input provided by the City of Claremont and review of social and environmental issues.

Based on a comment submitted on the Draft EIS and follow-up discussions with area landowners, it was determined that a slight alignment modification be considered west of Claremont (between Dodge County Road 1 and 110th Avenue). At this location the alignment drops south and away from the DM&E railroad right-of-way. This slight alignment change was considered because it would:

- Minimize farmland severance by paralleling the railroad corridor for a greater distance before swinging south toward 630th Street
- Eliminate one additional at-grade railroad crossing

As a result of balancing overall impacts to social and environmental resources with the needs of the highway and local transportation system, it was concluded that this alignment shift was the most prudent option despite introducing an additional relocation.

The preferred alternative includes a Dodge County Road 1 overpass bridge that will allow local traffic direct access to and from Claremont along Dodge County Road 1. A standard diamond interchange along Highway 14 is proposed at Dodge County Road 3. East of Dodge County Road 3, the preferred alternative swings north and again parallels the south side of the railroad corridor. Other local roadway improvements are required to provide access to existing properties and to re-establish local roadway connections.

Highway 56/Dodge County Road 5 Area

The preferred alternative generally follows the south side of the railroad corridor through this area. The Draft EIS showed a short extension of 630th Street from 150th Avenue to the east. Since publication of the Draft EIS, coordination with Claremont Township and Wasioja Township occurred determining a local connection between 150th Avenue and Dodge County Road 5 should be included to improve local circulation. As a result, the extension of 630th Street will continue east to intersect with Dodge County Road 5. This will provide a local connection to the Highway 56/Dodge County Road 5 and Highway 14 interchange.

3.2 TRAFFIC ANALYSIS

The traffic analysis was conducted as part of the Draft EIS (see Section 2.3 and 4.1) and updated for the preferred alternative. The updated analysis primarily focused on the interchanges for the preferred alternative and on the potential traffic impacts that closing the Steele County Road 6/Austin Road right-in/right-out access points to Highway 14 would have on nearby streets.

Under the preferred alternative, access to Highway 14 will be limited to the following five interchanges:

- Steele County Road 45/Highway 14 interchange
- Steele County Road 48/Highway 218/Highway 14 interchange
- Steele County Road 43/Highway 14 interchange
- Dodge County Road 3/Highway 14 interchange
- Highway 56/Dodge County Road 5/Highway 14 interchange

The Steele County Road 48/Highway 218/Highway 14 interchange was reconstructed in 2001, and the traffic analysis performed at that time for this interchange is sufficient to assure adequate operations at the interchange for

2030 forecast conditions. For the other four Highway 14 interchanges, additional traffic analyses were performed to determine the appropriate intersection control and lane geometry for the ramp terminal intersections.

Under the Highway 14 preferred alternative, the Steele County Road 6 right-in/right-out accesses to Highway 14 are proposed to be closed. The City of Owatonna has raised concerns about the traffic impacts the access closure may have on other nearby streets and intersections. A special study, entitled "County Road 6 Access Closure Analysis", was conducted to determine the traffic impacts of the proposed access closure (see "Steele County Road 6 Access Closure Impacts" in Final EIS Section 3.2 for additional information).

Existing and Forecast Traffic Volumes

Average daily traffic (ADT) volumes were obtained for Highway 14 from Mn/DOT and for side streets from field counts. The most recent ADT data was from 2006 and 2009 and is shown in Figure 3. Forecast ADT volumes for the year 2030 for the preferred alternative are shown in Figure 4. The greatest increase in traffic is expected to occur on the western portion of the study area near the City of Owatonna and Interstate-35. Throughout the study corridor, forecast traffic volumes are expected to more than double by 2030.

Forecast traffic volumes for the AM and PM peak hours for 2015 and 2030 were also developed for the:

- Steele County Road 45/Highway 14 interchange
- Steele County Road 43/Highway 14 interchange
- Dodge County Road 3/Highway 14 interchange
- Highway 56/Dodge County Road 5/Highway 14 interchange

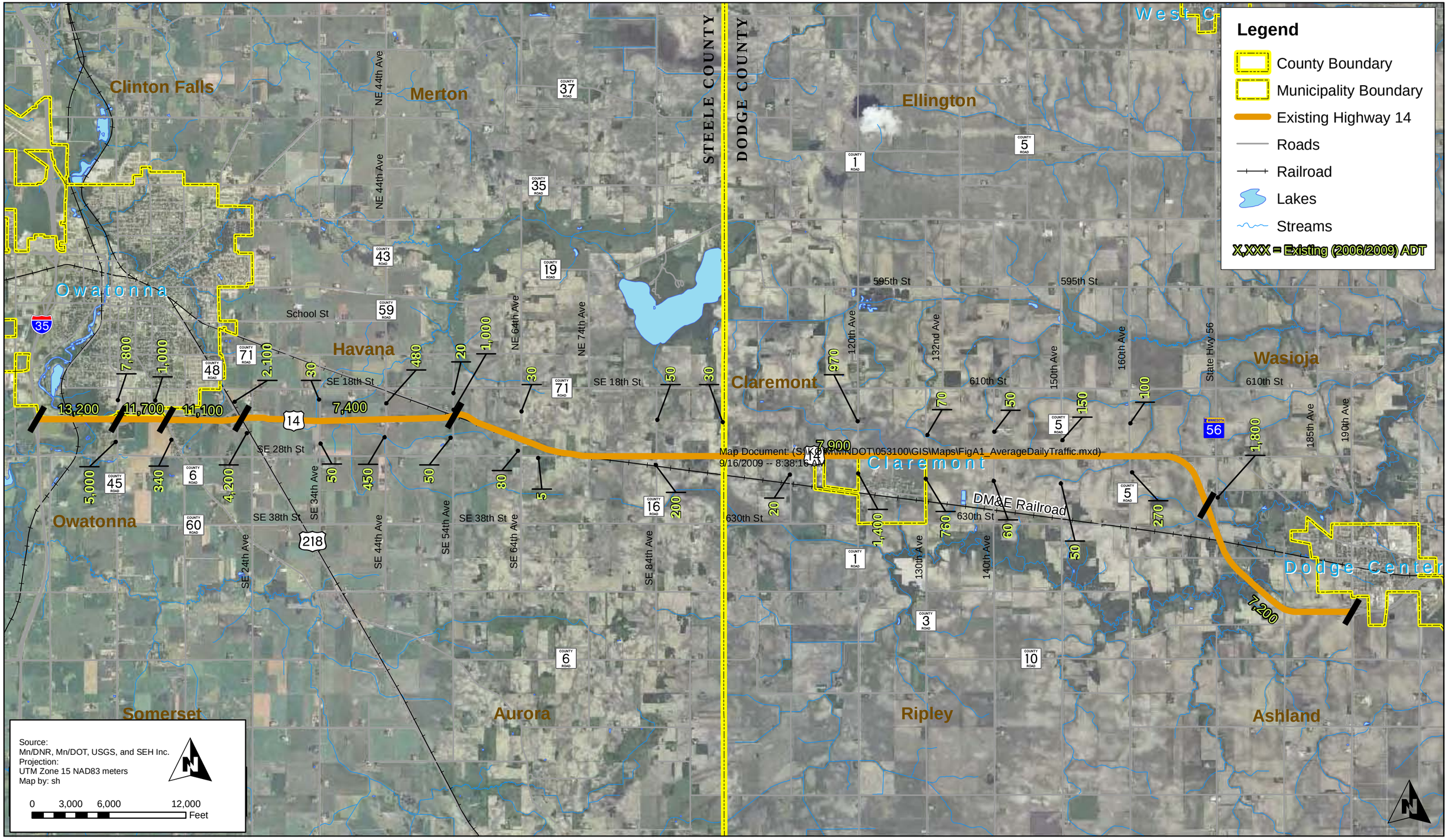
The 2015 peak hour volumes for the four interchanges are shown in Figure 5, and the 2030 peak hour volumes are shown in Figure 6.

Interchange Analysis

Since the publication of the Draft EIS, an Intersection Control Evaluation (ICE) has been conducted for the preliminary design of the preferred alternative. The ICE considers future traffic operations at interchange ramp terminal intersections and assists in determining the appropriate traffic control options for each location. A complete copy of the ICE Report is available for review at the Mn/DOT District 6 Offices in Rochester, Minnesota.

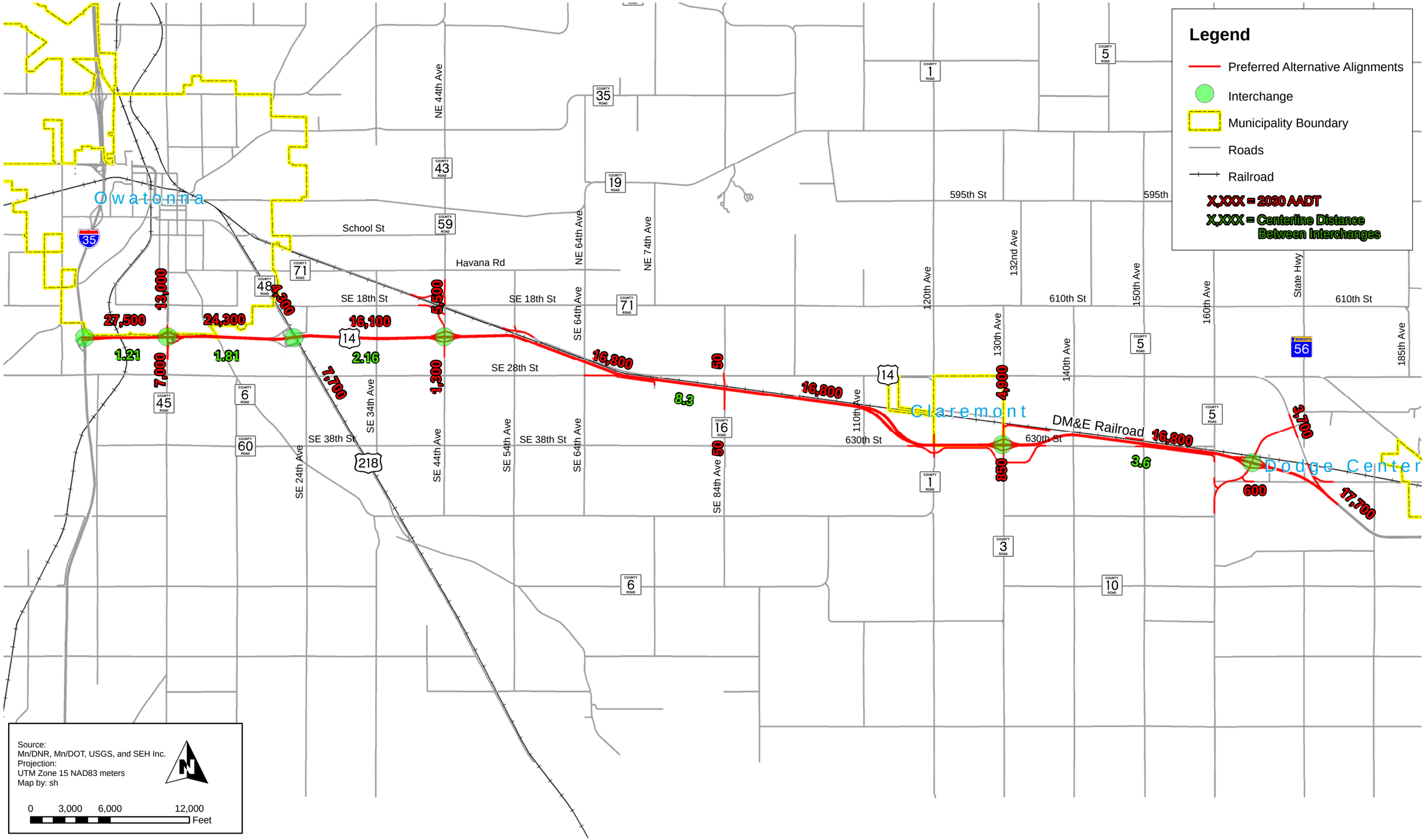
The following interchange ramp terminal intersections have been investigated for the preferred alternative:

- Steele County Road 45 at Highway 14 Eastbound (EB) Ramp



HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Existing Average
Daily Traffic (ADT)
Figure 3



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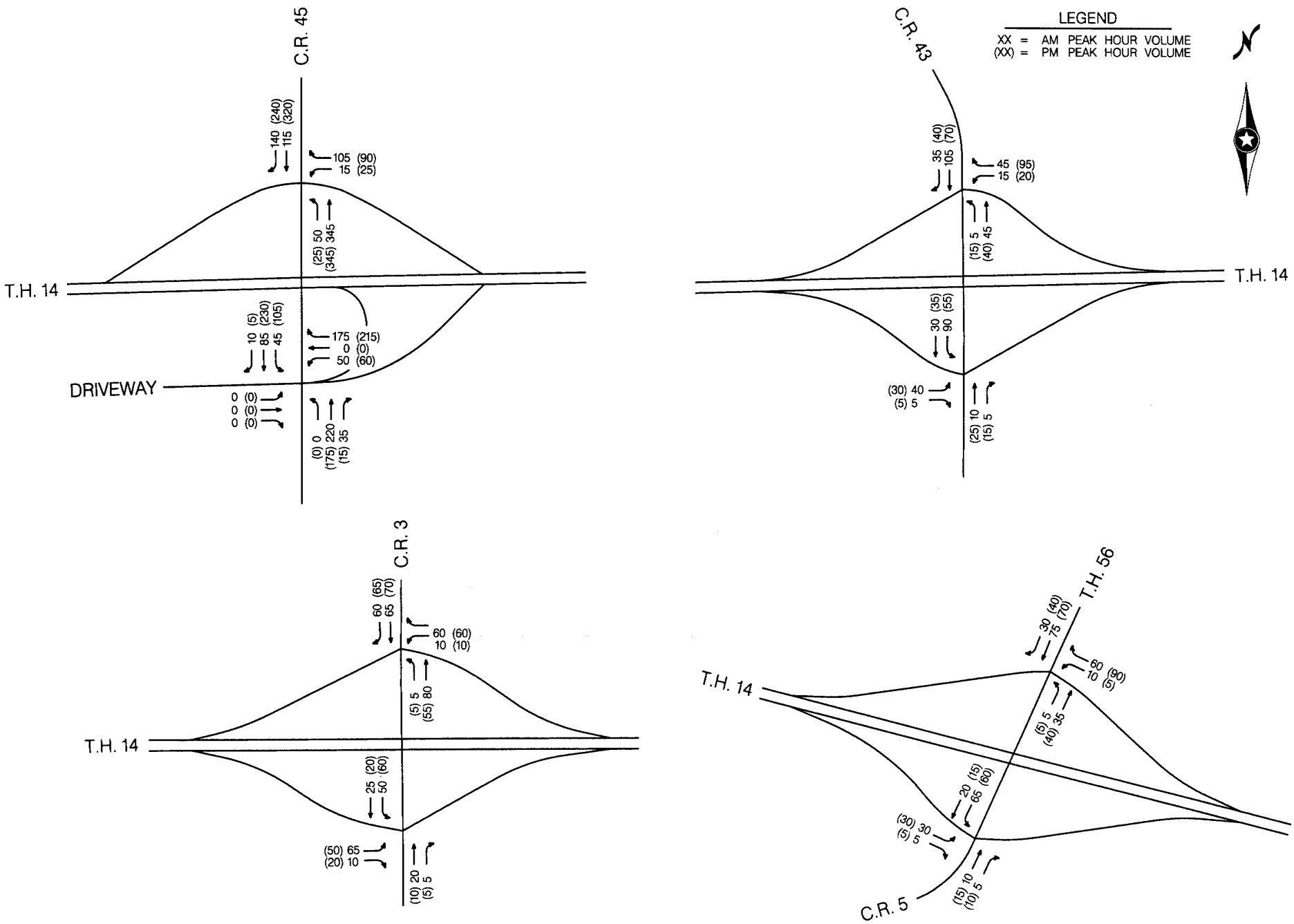
HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Preferred Alternative Interchange Locations and
2030 Forecast Traffic Volumes
Figure 4



	INTERSECTION CONTROL EVALUATION T.H. 14 FROM OWATONNA TO DODGE CENTER	2015 AM AND PM PEAK HOUR VOLUMES	FIGURE 5

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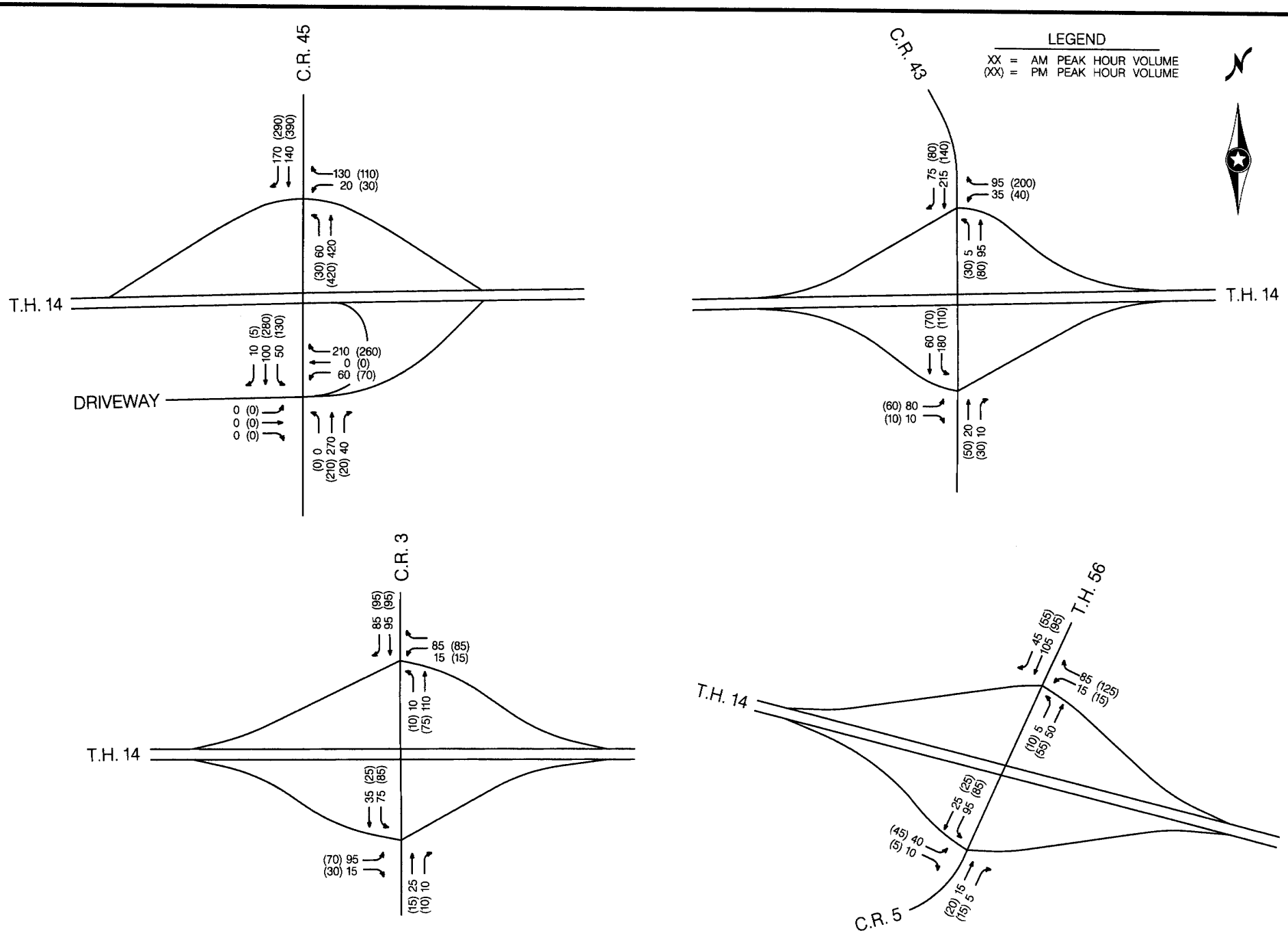


	FINAL EIS T.H. 14 FROM OWATONNA TO DODGE CENTER	PREFERRED ALTERNATIVE 2030 AM AND PM PEAK HOUR VOLUMES	FIGURE 6

- Steele County Road 45 at Highway 14 Westbound (WB) Ramp
- Steele County Road 43 at Highway 14 EB Ramp
- Steele County Road 43 at Highway 14 WB Ramp
- Dodge County Road 3 at Highway 14 EB Ramp
- Dodge County Road 3 at Highway 14 WB Ramp
- Highway 56/Dodge County Road 5 at Highway 14 EB Ramp
- Highway 56/Dodge County Road 5 at Highway 14 WB Ramp

The traffic investigations included a warrant analysis, safety analysis, and traffic operations analysis.

Warrant Analysis

The Minnesota Manual on Uniform Traffic Control Devices (MnMUTCD) provides guidance about when it may be appropriate to use all-way stop or signal control at an intersection. This MnMUTCD guidance is provided in the form of "warrants," or criteria, for when all-way stop or signal control may be justified. Though all-way stop or signal control should not be installed at an intersection unless a MnMUTCD warrant is met, meeting a warrant at an intersection does not in itself require the installation of that particular type of traffic control. The MnMUTCD does not have any warrants for roundabout control at an intersection. However, according to ICE guidelines, roundabouts are considered warranted if traffic volumes meet the criteria for either all-way stops or traffic signals. An engineering study that considers factors, including warrants, should be performed to determine the "best" type of control at an intersection.

Using 2030 forecast traffic volumes, the eight ramp terminal intersections at the four subject Highway 14 interchanges were analyzed to determine if any all-way stop or signal warrants were met. The results of the all-way stop warrant analysis with 2030 forecast volumes indicate only the two Steele County Road 45/Highway 14 ramp terminal intersections meet the all-way stop warrant under 2030 forecast conditions. Only the Steele County Road 45/Highway 14 Westbound Ramp intersection meets any signal warrants under 2030 forecast conditions. The all-way stop warrant is met at the Steele County Road 45/Highway 14 Eastbound Ramp intersection and the all-way stop and signal warrants are met at the Steele County Road 45/Highway 14 Westbound Ramp intersection. Therefore roundabout control is also considered warranted at these two intersections and should be further studied as an alternative means of traffic control at these intersections.

For 2030 conditions, all-way stop and signal warrants are not expected to be met at the ramp terminal intersections at the Steele County Road 43/Highway 14 interchange, Dodge County Road 3/Highway 14 interchange, and Highway 56/Dodge County Road 5/Highway 14 interchange. This suggests that one-way stop control (stop control on the ramp approach only) is the best intersection control at these six ramp terminal intersections. No

further analysis of higher types of intersection control was required at these intersections.

Safety Analysis

As described above, the warrant analysis indicated that only the Steele County Road 45/Highway 14 Eastbound Ramp intersection and Steele County Road 45/Highway 14 Westbound Ramp intersection may meet warrants for intersection control other than one-way stop control. Therefore, only these two intersections were investigated in the safety analysis.

The annual number of crashes for each intersection was estimated for each type of warranted intersection control. Crash estimates were made for 2015 and 2030 Build conditions. Build conditions assume lane configuration improvements (i.e., adding turn lanes) will be made at the intersection. Traffic volume differences for future years were taken into account in calculating the crash estimates. Crash estimates are based mainly on average crash rate information from Mn/DOT's compilation of crash data by intersection type using 2006-2008 crash information. The average crash rates for District 6 (Rochester) were used for the crash estimate calculations. The District 6 average crash rate of 0.5 crashes per million entering vehicles (MEV) for an unsignalized, urban or suburban thru/stop intersection was used for calculating crash estimates for one-way or two-way stop control intersections. The District 6 average crash rate of 0.4 crashes per MEV for an unsignalized, all-way stop intersection was used for calculating crash estimates for all-way stop control intersections. The District 6 average crash rate of 0.9 crashes per MEV for a signalized, low volume, low speed intersection was used for calculating crash estimates for signal control intersections. There is no Mn/DOT average crash rate for roundabout control intersections. Therefore, a crash rate for roundabout control was developed by assuming the crash rate for roundabout control would be 56 percent of the crash rate for signal control (this is based on the 44 percent crash reduction factor, indicated in FHWA's Desktop Reference for Crash Reduction Factors, for changing to roundabout control at an intersection). This results in an average crash rate of 0.5 crashes per MEV for roundabout control intersections.

For the Steele County Road 45/Highway 14 Eastbound Ramp intersection, the estimated annual crashes are shown in Table 3 for:

- Build with two-way stop control
- Build with all-way stop control
- Build with roundabout control

Note signal control was not warranted at this intersection, and, therefore, no crash estimates were made for signal control at the intersection. As can be seen from Table 3, all-way stop control at the intersection provides the greatest safety benefit, while two-way stop and roundabout control provide the same safety benefit.

Table 3 – Steele County Road 45/Highway 14 Eastbound Ramp Intersection – Annual Crashes by Intersection Control Type

Year	Entering ADT	Build 2-Way Stop	Build All-Way Stop	Build Roundabout
2015	8,485	1.55	1.24	1.55
2030	10,292	1.88	1.50	1.88

For the Steele County Road 45/Highway 14 Westbound Ramp intersection, the estimated annual crashes are shown in Table 4 for:

- Build with one-way stop control
- Build with all-way stop control
- Build with signal control
- Build with roundabout control

As can be seen from Table 4, all-way stop control at the intersection provides the greatest safety benefit, while signal control provides the least safety benefit.

Table 4 – Steele County Road 45/Highway 14 Westbound Ramp Intersection – Annual Crashes by Intersection Control Type

Year	Entering ADT	Build 2-Way Stop	Build All-Way Stop	Build Signal	Build Roundabout
2015	11,332	2.07	1.65	3.72	2.07
2030	13,745	2.51	2.01	4.52	2.51

Though the safety analysis indicates that all-way stop control is expected to provide the least annual crashes at both subject intersections, the difference in annual crashes for all-way stop control compared to one-way/two-way stop control or roundabout control is small. This suggests that factors other than safety should play a more important role in deciding which of these three types of intersection control is preferred at the County Road 45/Highway 14 Eastbound Ramp intersection and at the County Road 45/Highway 14 Westbound Ramp intersection. In addition, due to the number of approach lanes on the County Road 45 approaches to these intersections and the fact that these intersections are in a speed transition area on County Road 45, it may be difficult for motorists to pick out and see the stop signs on County Road 45. This may result in a higher than estimated number of crashes at the intersections under the all-way stop condition.

Traffic Operations Analysis

The traffic operations analysis was performed for the four subject interchanges using the AM and PM peak hour traffic volumes for 2030 traffic conditions.

The warrant analysis suggests that one-way stop control is the best type of control at the ramp terminal intersections at the Steele County Road 43/Highway 14 interchange, Dodge County Road 3/Highway 14 interchange, and Highway 56/Highway 14 interchange. The traffic operations analysis was performed for these six intersections for the AM and PM peak hour, assuming one-way stop control (stop control on the ramp approach only) and the preferred alternative lane geometry. The results of the analysis are shown in Table 5, which indicates that all six intersections are expected to operate at level of service[1] (LOS) A, and all individual movements are expected to operate at LOS A, for the AM and PM peak hour under 2030 conditions. This suggests that, with one-way stop control, these intersections have considerable "reserve" capacity and should be able to handle traffic demands well into the future.

Table 5 – 2030 Peak Hour Traffic Operation Results

Time Period	Intersection	Approach	Demand Volumes (Veh/Hour)				Delay (s/veh)						LOS By Intersection		Through	Left Turn		Right Turn	
							Left		Thru		Right		Delay	LOS	Max Queue	Storage	Max Queue	Storage	Max Queue
			Left	Thru	Right	Total	Delay	LOS	Delay	LOS	Delay	LOS	(S/Veh)		(ft)	(ft)	(ft)	(ft)	(ft)
AM Peak Hour	County Road 43 and TH 14 Westbound Ramp (WB stop)	NB	5	95	0	100	2.1	A	1.1	A	0.0	A	2.8	A	0	300	15	0	0
		SB	0	215	75	290	0.0	A	1.0	A	4.6	A			0	0	0	300	0
		WB	35	0	95	130	4.3	A	0.0	A	6.6	A			49	0	0	300	54
	County Road 43 and TH 14 Eastbound Ramp (EB stop)	NB	0	20	10	30	0.0	A	0.3	A	4.1	A	2.2	A	0	0	0	300	0
		SB	180	60	0	240	1.3	A	0.5	A	0.0	A			0	300	33	0	0
		EB	80	0	10	90	5.3	A	0.0	A	6.3	A			76	0	0	300	24
	County Road 3 and TH 14 Westbound Ramp (WB stop)	NB	10	110	0	120	1.7	A	0.9	A	0.0	A	3.1	A	0	300	19	0	0
		SB	0	95	85	180	0.0	A	1.0	A	4.8	A			0	0	0	300	0
		WB	15	0	85	100	3.3	A	0.0	A	6.2	A			25	0	0	300	41
	County Road 3 and TH 14 Eastbound Ramp (EB stop)	NB	0	25	10	35	0.0	A	0.3	A	4.5	A	2.2	A	0	0	0	300	0
		SB	75	35	0	110	0.9	A	0.3	A	0.0	A			0	300	28	0	0
		EB	95	0	15	110	3.4	A	0.0	A	6.0	A			54	0	0	300	26
	Trunk Highway 56 and TH 14 Westbound Ramp (WB stop)	NB	5	50	0	55	1.7	A	0.9	A	0.0	A	3.0	A	0	300	10	0	0
		SB	0	105	45	150	0.0	A	0.6	A	4.6	A			0	0	0	300	0
		WB	15	0	85	100	3.7	A	0.0	A	6.5	A			31	0	0	300	48
	Trunk Highway 56 and TH 14 Eastbound Ramp (EB stop)	NB	0	15	5	20	0.0	A	0.2	A	4.0	A	1.8	A	0	0	0	300	0
		SB	95	25	0	120	1.0	A	0.3	A	0.0	A			0	300	33	0	0
		EB	40	0	10	50	3.5	A	0.0	A	5.6	A			54	0	0	300	22
PM Peak Hour	County Road 43 and TH 14 Westbound Ramp (WB stop)	NB	30	80	0	110	1.6	A	1.3	A	0.0	A	4.3	A	0	300	34	0	0
		SB	0	140	80	220	0.0	A	0.9	A	4.7	A			0	0	0	300	2
		WB	40	0	200	240	5.3	A	0.0	A	8.0	A			42	0	0	300	69
	County Road 43 and TH 14 Eastbound Ramp (EB stop)	NB	0	50	30	80	0.0	A	0.5	A	4.4	A	1.8	A	0	0	0	300	0
		SB	70	110	0	180	1.1	A	0.4	A	0.0	A			0	300	30	0	0
		EB	60	0	10	70	4.0	A	0.0	A	5.8	A			49	0	0	300	24
	County Road 3 and TH 14 Westbound Ramp (WB stop)	NB	10	75	0	85	1.4	A	1.1	A	0.0	A	3.3	A	0	300	20	0	0
		SB	0	95	95	190	0.0	A	0.9	A	4.8	A			0	0	0	300	0
		WB	15	0	85	100	3.7	A	0.0	A	6.3	A			28	0	0	300	58
	County Road 3 and TH 14 Eastbound Ramp (EB stop)	NB	0	15	10	25	0.0	A	0.2	A	4.5	A	2.5	A	0	0	0	300	0
		SB	85	25	0	110	0.8	A	0.3	A	0.0	A			0	300	27	0	0
		EB	70	0	30	100	3.5	A	0.0	A	6.1	A			48	0	0	300	45
	Trunk Highway 56 and TH 14 Westbound Ramp (WB stop)	NB	10	55	0	65	1.6	A	1.0	A	0.0	A	3.8	A	0	300	21	0	0
		SB	0	95	55	150	0.0	A	0.7	A	4.6	A			0	0	0	300	0
		WB	15	0	125	140	4.7	A	0.0	A	6.8	A			28	0	0	300	58
	Trunk Highway 56 and TH 14 Eastbound Ramp (EB stop)	NB	0	20	15	35	0.0	A	0.2	A	4.4	A	1.8	A	0	0	0	300	0
		SB	85	25	0	110	0.9	A	0.3	A	0.0	A			0	300	32	0	0
		EB	45	0	5	50	3.3	A	0.0	A	6.2	A			47	0	0	300	21

At the Steele County Road 45/Highway 14 Eastbound Ramp intersection and Steele County Road 45/Highway 14 Westbound Ramp intersection, the

[1] LOS is a measure of delay and operating conditions defined by the Highway Capacity Manual and is expressed as levels of service "A" through "F." LOS A represents the best operating conditions (no congestion) and LOS F represents the worst operating conditions (severe congestion). For the intersections at the Highway 14 interchanges, it was assumed that LOS C or better for the overall intersection and LOS D or better for individual intersection movements represented acceptable operating conditions.

warrant analysis indicated that more than one type of intersection control may be warranted under 2030 conditions. Therefore, traffic operations analyses were performed for these two intersections with the different types of warranted intersection control, using 2030 AM and PM peak hour volumes. The intersection control alternatives investigated included:

- Side street stop control at both intersections
- All-way stop control at both intersections
- Signal control at the Steele County Road 45/Highway 14 Westbound Ramp intersection
- Two-way stop control at the Steele County Road 45/Highway 14 Eastbound Ramp intersection (Note signal control is not expected to be warranted at this intersection, and it appears that two-way stop control functioned adequately under 2030 conditions)
- Roundabout control at both intersections

The results of the analysis are shown on the next page in Table 6, which indicates that both intersections are expected to operate at LOS A for the AM and PM peak hour under 2030 conditions, regardless of the type of intersection control employed.

Interchange Recommendations

For the preferred alternative, it is recommended that one-way stop control be implemented at the ramp terminal intersections at the Steele County Road 43/Highway 14 interchange, Dodge County Road 3/Highway 14 interchange, and Highway 56/Highway 14 interchange. At the Steele County Road 45/Highway 14 interchange, two alternatives are recommended to be carried forward to the next phase of the project. One option is to provide one-way stop control at the Steele County Road 45/Highway 14 Westbound Ramp intersection, and two-way stop control at the Steele County Road 45/Highway 14 Eastbound Ramp intersection. A second option is to provide roundabout control at both intersections.

Steele County Road 6 Access Closure Impacts

Under the preferred alternative, the existing right-in/right-out accesses on Steele County Road 6/Austin Road at Highway 14 are proposed to be closed. Since the publication of the Draft EIS, a study was performed to determine the traffic impacts of the access closure on other nearby intersections. The results of the study are provided in a technical memorandum, entitled, “County Road 6 Access Closure Analysis” (dated 8/27/09), and is available for review at the Mn/DOT District 6 Offices in Rochester, Minnesota.

The study investigated traffic impacts of the access closure at the following intersections under 2030 conditions:

- Steele County Road 45 and 18th Street
- Steele County Road 45 and 22nd Street
- Steele County Road 45 and Highway 14 Westbound Ramp

Table 6 – Steele County Road 45/Highway 14 Traffic Operations and Intersection Control Results

Time Period	Intersection	Approach	Demand Volumes (Veh/Hour)				Delay (s/veh)						LOS By Intersection		Through	Left Turn		Right Turn	
							Left		Thru		Right		Delay	LOS	Max Queue	Storage	Max Queue	Storage	Max Queue
			Left	Thru	Right	Total	Delay	LOS	Delay	LOS	Delay	LOS	(S/Veh)		(ft)	(ft)	(ft)	(ft)	(ft)
Forecast 2015 Traffic Volumes with Side Street Stop Control (SimTraffic)																			
AM Peak Hour	County Road 45 and TH 14 Westbound Ramp (WB stop)	NB	50	345	0	395	7.0	A	5.4	A	0.0	A	4.1	A	0	300	36	0	0
		SB	0	115	140	255	0.0	A	0.3	A	0.5	A			0	0	0	250	2
		WB	15	0	105	120	7.3	A	0.0	A	7.6	A			32	0	0	300	58
	County Road 45 and TH 14 Eastbound Ramp (WB stop)	NB	0	220	35	255	0.0	A	0.7	A	4.4	A	2.0	A	0	200	0	200	0
		SB	45	85	10	140	2.1	A	0.3	A	0.5	A			0	300	37	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	50	0	175	225	6.5	A	0.0	A	2.8	A			57	0	0	0	0
PM Peak Hour	County Road 45 and TH 14 Westbound Ramp (WB stop)	NB	25	345	0	370	9.1	A	6.4	A	0.0	A	3.4	A	0	300	39	0	0
		SB	0	320	240	560	0.0	A	0.5	A	0.9	A			0	0	0	250	3
		WB	25	0	90	115	9.0	A	0.0	A	7.6	A			32	0	0	300	62
	County Road 45 and TH 14 Eastbound Ramp (WB stop)	NB	0	175	15	190	0.0	A	0.7	A	4.3	A	2.1	A	0	200	0	200	0
		SB	105	230	5	340	1.8	A	0.5	A	0.4	A			0	300	39	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	60	0	215	275	9.0	A	0.0	A	3.0	A			66	0	0	0	0
Forecast 2030 Traffic Volumes with Side Street Stop Control (SimTraffic)																			
AM Peak Hour	County Road 45 and TH 14 Westbound Ramp (WB stop)	NB	60	420	0	480	7.8	A	5.3	A	0.0	A	4.4	A	0	300	54	0	0
		SB	0	140	170	310	0.0	A	0.3	A	0.6	A			0	0	0	250	3
		WB	20	0	130	150	11.7	B	0.0	A	8.7	A			40	0	0	300	65
	County Road 45 and TH 14 Eastbound Ramp (WB stop)	NB	0	270	40	310	0.0	A	0.8	A	4.4	A	2.2	A	0	200	0	200	0
		SB	50	100	10	160	2.1	A	0.4	A	0.0	A			0	300	34	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	60	0	210	270	7.8	A	0.0	A	2.9	A			65	0	0	0	0
PM Peak Hour	County Road 45 and TH 14 Westbound Ramp (WB stop)	NB	30	420	0	450	10.5	B	6.5	A	0.0	A	3.7	A	0	300	56	0	0
		SB	0	390	290	680	0.0	A	0.6	A	1.0	A			0	0	0	250	10
		WB	30	0	110	140	11.6	B	0.0	A	8.2	A			54	0	0	300	64
	County Road 45 and TH 14 Eastbound Ramp (WB stop)	NB	0	210	20	230	0.0	A	0.6	A	4.3	A	2.4	A	0	200	0	200	4
		SB	130	280	5	415	2.4	A	0.6	A	0.0	A			0	300	61	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	70	0	260	330	12.4	B	0.0	A	3.1	A			86	0	0	0	0
Forecast 2030 Traffic Volumes with All-Way Stop Control (SimTraffic)																			
AM Peak Hour	County Road 45 and TH 14 Westbound Ramp (all-way stop)	NB	60	420	0	480	10.9	B	14.9	B	0.0	A	9.9	A	73	300	51	0	0
		SB	0	140	170	310	0.0	A	7.1	A	2.8	A			44	0	0	250	62
		WB	20	0	130	150	3.3	A	0.0	A	7.1	A			27	0	0	300	57
	County Road 45 and TH 14 Eastbound Ramp (all-way stop)	NB	0	270	40	310	0.0	A	9.4	A	8.0	A	7.1	A	100	200	0	200	47
		SB	50	100	10	160	6.8	A	10.3	B	0.0	A			54	300	38	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	60	0	210	270	4.9	A	0.0	A	2.9	A			49	0	0	0	0
PM Peak Hour	County Road 45 and TH 14 Westbound Ramp (all-way stop)	NB	30	420	0	450	12.7	B	15.5	C	0.0	A	9.4	A	79	300	47	0	0
		SB	0	390	290	680	0.0	A	7.1	A	4.4	A			68	0	0	250	74
		WB	30	0	110	140	4.2	A	0.0	A	6.9	A			46	0	0	300	46
	County Road 45 and TH 14 Eastbound Ramp (all-way stop)	NB	0	210	20	230	0.0	A	9.1	A	7.7	A	7.9	A	87	200	0	200	31
		SB	130	280	5	415	7.6	A	12.3	B	0.0	A			91	300	62	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	70	0	260	330	5.1	A	0.0	A	3.1	A			54	0	0	0	0
Forecast 2030 Traffic Volumes with Traffic Signal at TH 14 WB Ramp and Eastbound/Westbound Stop Control at TH 14 Eastbound Ramp (SimTraffic)																			
AM Peak Hour	County Road 45 and TH 14 Westbound Ramp (traffic signal control)	NB	60	420	0	480	7.8	A	6.7	A	0.0	A	5.4	A	97	300	49	0	0
		SB	0	140	170	310	0.0	A	1.5	A	0.9	A			36	0	0	250	31
		WB	20	0	130	150	23.3	C	0.0	A	8.5	A			50	0	0	300	62
	County Road 45 and TH 14 Eastbound Ramp (EB/WB stop)	NB	0	270	40	310	0.0	A	1.0	A	4.4	A	2.2	A	0	200	0	200	0
		SB	50	100	10	160	2.3	A	0.7	A	0.0	A			0	300	35	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	60	0	210	270	7.0	A	0.0	A	2.9	A			59	0	0	0	0
PM Peak Hour	County Road 45 and TH 14 Westbound Ramp (traffic signal control)	NB	30	420	0	450	10.7	B	7.8	A	0.0	A	5.0	A	67	300	48	0	0
		SB	0	390	290	680	0.0	A	2.0	A	1.4	A			67	0	0	250	43
		WB	30	0	110	140	25.9	C	0.0	A	8.4	A			62	0	0	300	56
	County Road 45 and TH 14 Eastbound Ramp (EB/WB stop)	NB	0	210	20	230	0.0	A	0.7	A	4.3	A	2.6	A	0	200	0	200	0
		SB	130	280	5	415	3.0	A	1.3	A	0.0	A			0	300	66	200	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	0	0	0	0
		WB	70	0	260	330	11.2	B	0.0	A	3.2	A			75	0	0	0	0
Forecast 2030 Traffic Volumes with Roundabout Control (VISSIM)																			
AM Peak Hour	County Road 45 and TH 14 Westbound Ramp (roundabout control)	NB	30	450	0	480	1.4	A	1.3	A	0.0	A	1.6	A	0	-	-	-	-
		SB	0	160	170	330	0.0	A	1.0	A	1.1	A			40	-	-	-	-
		WB	20	0	130	150	3.9	A	0.0	A	3.9	A			82	-	-	-	-
	County Road 45 and TH 14 Eastbound Ramp (roundabout control)	NB	0	270	40	310	0.0	A	1.2	A	1.0	A	1.5	A	32	-	-	-	-
		SB	50	120	10	180	1.1	A	1.1	A	0.8	A			27	-	-	-	-
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	-	-	-	-
		WB	60	0	210	270	1.5	A	0.0	A	2.1	A			92	-	-	-	-
PM Peak Hour	County Road 45 and TH 14 Westbound Ramp (roundabout control)	NB	60	420	0	480	1.4	A	1.3	A	0.0	A	1.8	A	0	-	-	-	-
		SB	0	470	290	760	0.0	A	1.9	A	1.6	A			39	-	-	-	-
		WB	30	0	110	140	3.9	A	0.0	A	3.8	A			68	-	-	-	-
	County Road 45 and TH 14 Eastbound Ramp (roundabout control)	NB	0	220	20	240	0.0	A	1.2	A	1.0	A	1.6	A	37	-	-	-	-
		SB	130	365	5	500	1.9	A	1.7	A	1.7	A			30	-	-	-	-
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A			0	-	-	-	-
		WB	70	0	260	330	1.1	A	0.0	A	1.8	A			63	-	-	-	-

- Steele County Road 45 and Highway 14 Eastbound Ramp
- Austin Road and 18th Street
- Austin Road and 22nd Street
- Steele County Road 48 and 18th Street

The traffic analyses included a review of:

- Recent crash data for the intersections
- An estimate of the amount of traffic (including truck traffic) expected to be shifted to other intersections due to the access closure
- A traffic operations analysis for the 2030 AM and PM peak hour with the Steele County Road 6 accesses closed
- A review of the ability of large trucks to turn at the intersections

The traffic analyses performed indicate that the amount of traffic shifted from the Steele County Road 6 accesses to other intersections is expected to be relatively small compared to existing traffic at each intersection. The amount of truck traffic expected to be shifted to other intersections due to the Steele County Road 6 access closure is expected to be less than one or two trucks for any particular movement at the intersections during the peak hours. Consequently, the County Road 6 access closure at Highway 14 is not expected to have any major traffic impacts at other nearby intersections. Some minor improvements at two study intersections are expected to be needed to address 2030 traffic conditions. The need for these improvements is being driven by existing conditions or future background traffic growth and not the shifted traffic from the County Road 6 access closure.

4.0 UPDATED SOCIAL, ECONOMIC, AND ENVIRONMENTAL IMPACTS ANALYSIS

The purpose of this section is to present an update on the anticipated impacts of the preferred alternative on the social, economic, and natural environments, as they differ from the information presented in the Draft EIS. For impacts that have not changed, the information is summarized here, and the reader will be referred to the Draft EIS.

4.1 WHAT ARE THE SOCIAL AND COMMUNITY IMPACTS?

Right-of-Way and Relocation

The amount of right-of-way to be acquired for the preferred alternative was calculated by taking the total amount of land within the preliminary right-of-way corridor that falls outside any existing right-of-way. To the extent possible, the preferred alternative has been designed to utilize existing state and local government-owned right-of-way in an effort to minimize right-of-way needs. The following design guidelines were used in determining the right-of-way acquisition needs for the preferred alternative.

- A 300-foot corridor is desirable for a rural four-lane highway section. All locations where no existing right-of-way exists were designed using a 300-foot right-of-way corridor.
- Existing Highway 14 right-of-way ranges from approximately 100 feet in the east to approximately 300 feet in the west.
- An existing 66-foot right-of-way was assumed and applied to all segments of an alternative that utilizes an existing roadway.
- A 66-foot right-of-way corridor was applied to all new/reconstructed township and frontage roads.
- A 100-foot right-of-way corridor was applied to all new/reconstructed county roads.

The preferred alternative will require approximately 578 total acres of new right-of-way to accommodate the proposed improvements. This is a preliminary estimate of the right-of-way required for the project and will be refined as part of the final design and as a result of the right-of-way acquisition process. In addition, temporary construction easements may be required in areas where the construction limits extend beyond the proposed right-of-way.

Table 7 – Potential Right-of-Way Acquisition

Alternative	Additional Highway Right-of-Way Needed[1]	Additional Local Road Right-of-Way Needed[1]
Preferred Alternative	502 acres	76 acres

1 Impacts based on preliminary right-of-way and may change as part of the final design and right-of-way acquisition process.

Relocation

Highway construction quite often requires the relocation of residential, commercial, and farm properties. The acquisition of property is one of the most obvious impacts associated with highway construction. The identification of potential relocations was completed by overlaying the preferred alternative alignment onto aerial photographs. The same right-of-way corridor widths as above were also used in the assessment of potential relocations. Properties where the required right-of-way impacted the building or required a substantial portion of the lot were considered for relocation. Depending on the outcome of the right-of-way process, additional relocations may be considered if requested by the property owner.

The preferred alternative will require acquisition of 17 residences/farmsteads. The project will not require any business relocations. Figures A1 through A8, located in Appendix A, depict the anticipated relocations. The alignment of the preferred alternative may be adjusted further in the final design phase to reduce these impacts.

Mitigation

The design phase of the preferred alternative will focus efforts to minimize residential impacts to the extent possible. The needs of each relocatee will be assessed on a case-by-case basis closer to the time of acquisition. See Draft EIS Section 4.1 – Right-of-Way and Relocation for further information.

An analysis of the residential real estate market in the project area was conducted in order to gain a preliminary understanding of the market's ability to absorb the residential/farmstead relocations associated with construction of the preferred alternative. The research indicated that as of September 2009, there were over 260 existing residential/farmstead listings and over 170 land/lots for sale listed through the Online Multiple Listing Service (OMLS) in:

- City of Owatonna
- Owatonna Township
- Havana Township
- City of Claremont
- Claremont Township
- City of Dodge Center
- Wasioja Township

The median price of these residential/farmstead and lot/land listings are approximately $160,000 and $50,000, respectively. The potential replacement housing supply under current conditions appears to be more than adequate for accommodating relocations from the proposed project.

Relocation Assistance

The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and 49 CFR Part 24 provide that assistance be granted to persons, businesses, farms, and non-profit organizations that may be displaced by public improvements, such as this highway project.

Mn/DOT will provide relocation assistance for persons displaced by the project without discrimination. Advisors are available to explain relocation details, policies, and procedures with potentially displaced individuals. The advisors will work with a displacee in locating comparable replacement property and will work directly with property occupants to assist with their specific relocation plans.

Residential displacees are entitled to advisory services and the reimbursement of some of the costs associated with relocation. These may include moving expenses, replacement housing costs, increased rental/mortgage payments, closing costs, and other valid relocation costs. The replacement dwelling to which a displacee relocates must be "decent, safe, and sanitary", meaning it must meet all the minimum requirements established by federal regulations and conform to all housing and occupancy codes.

If necessary, Last Resort Housing provisions will be implemented to ensure comparable replacement housing is available to each displacee. These provisions may include increased replacement housing payments, construction of properties, or other alternate methods based on reasonable costs.

Relocation assistance will also be made available to businesses, farms, and non-profit organizations. Acquisition and relocation will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. In addition to advisory services, payment may be made for certain expenses pertaining to:

- Moving Costs
- Loss of tangible personal property as a result of relocation or discontinuance of a business
- Reestablishment expenses
- Costs incurred in searching for a replacement site
- Fixed payment in lieu of moving and reestablishment costs

Economic Environment

The construction of the preferred alternative will impact the economy of the project area by converting agricultural land to highway uses and relocating or acquiring residences and farmsteads. The improved highway may also attract new development that would compensate for such losses. See Draft EIS Section 4.1 – Economic Environment for further discussion.

Indirect impacts to existing businesses may occur as a result of access changes and construction activities including potential traffic delays and detours.

Mitigation

Relocation assistance will be provided for all acquired properties, no other economic mitigation measures are proposed.

Railroad Assessment

Minnesota Rules 8830.2740 provides criteria for considering grade separation of at-grade railroad and roadway crossings. The existing Highway 14 crossing of the DM&E rail line in Steele County currently meets and/or exceeds several of these criteria. Furthermore, the Federal Railroad Administration, FHWA, and Mn/DOT have established initiatives to eliminate the number of at-grade railroad crossings on the National Highway System and all roadways.

The preferred alternative improves safety conditions by eliminating several public and private crossings of the DM&E rail line within the project area. Up to ten public road at-grade crossings and four private crossings are proposed to be closed/eliminated since the eastern two-thirds of the Highway 14 corridor is to be realigned south of the DM&E rail line. Three crossings, all within the City of Claremont, would remain under the preferred alternative including Dodge County Road 1, Elm Street, and Dodge County Road 3.

Grade-separated crossings of other highways over the rail line would be added at Steele County Road 16 and the new Dodge County Road 5/Highway 56 interchange. An analysis of the future exposure rate at the County Road 43/DM&E railroad crossing in Havana Township was conducted. The future exposure rate was determined by multiplying the number of trains forecast to travel along the rail corridor and the number of forecast vehicles traveling along County Road 43 and crossing over the rail line. Based on the results of this analysis, the future conditions at this crossing do not warrant the need for a grade separated crossing and that installation of improved signage, flashing warning lights, and control gates are the appropriate safety improvements for this crossing.

Mitigation

No mitigation is proposed as part of the proposed highway improvements. Mn/DOT will continue to coordinate with the DM&E and local roadway jurisdictions as improvements to the rail line are proposed and as improvements to Highway 14 are further designed.

Social and Community Environment

Information regarding population, housing, and community resources is available in Draft EIS Section 4.1 – Social and Community Environment. The preferred alternative is anticipated to have minimal impacts on community resources. The potentially affected resources include the St Thomas Convention Center, the Claremont City Offices, and the Claremont Game Refuge. The preliminary construction limits indicate the impacts to these

resources would be limited. While access to these community resources would be altered, relocation of community resource structures is not proposed. Some local units of government have expressed concern regarding the creation of long dead end roadways that will impact emergency response and potential maintenance issues with cul-de-sacs. The preferred alternative will prohibit direct access to properties along the corridor. However, alternative access is to be provided by secondary streets.

Mitigation

Mitigation measures for acquisition and relocations are described under the Right-of-Way and Relocation section of this Final EIS. Mitigation for relocated access points will also be conducted as part of the right-of-way acquisition process.

Land Use

As discussed in Draft EIS Section 4.1 – Land Use, the preferred alternative will have some impact on land use in the project area. Right-of-way acquisition will impact seven homes and ten farmsteads along the corridor and will also convert farmland and wetland acreage to transportation uses. There is also the potential for the improved four-lane freeway section to attract additional development to interchange areas. It is assumed this development would primarily occur within the cities of Owatonna and Claremont.

Based on the importance of Highway 14 to the affected communities, the preferred alternative is consistent and compatible with existing and future land use plans and maps.

Mitigation

Controlling potential land use changes that occur following implementation of the proposed improvements would be accomplished primarily through local government zoning authority and through highway access management (proposed freeway design). Mn/DOT has already coordinated with local units of government regarding the project and further discussions will occur to discuss land use and transportation planning efforts and any mitigation commitments once the preferred alternative has been selected. Mitigation commitments, if needed, may include land use plan and zoning map modifications made by local governments. Furthermore, Mn/DOT encourages cities in the project area to use smart growth techniques and innovative best management practices for stormwater, such as those listed on the NEPA Stormwater Green Sheet that was provided by the EPA. A copy of the Stormwater Green Sheet is included in Section 8.2 of this Final EIS as part of the response to comments for the EPA comment letter on the Draft EIS.

Parks and Public Recreational Areas

Parks and public recreational areas are listed and discussed in Draft EIS Section 4.1 – Parks and Public Recreational Areas. Upon completion of the preliminary design, it was determined that the preferred alternative will have

no impacts on existing parks in the study area. However, the preferred alternative will impact the Claremont State Game Refuge and impact grant-in-aid snowmobile trails.

State Game Refuge

The Claremont State Game Refuge (not managed by the MNDNR) is located within the Highway 14 project area. State Game Refuges are lands set aside as refuges for animals. Hunting is not allowed on these lands unless designated by the commissioner (Minnesota Statute 97A.085). According to Dodge County land records, more than 50 percent of the land contained within the Claremont State Game Refuge is privately owned property and, therefore, the refuge is not considered a Section 4(f) resource.

The preferred alternative runs through approximately three miles of the Claremont State Game Refuge boundary and will require right-of-way acquisition of land within the boundary. The preferred alternative is not anticipated to substantially affect the Claremont Game Refuge because the land expected to be acquired for the proposed highway improvements is privately-owned agricultural land that is primarily located adjacent to the DM&E rail line.

State Trails

Most of the recreational trails within and in close proximity to the project area are Department of Natural Resources (MNDNR) grant-in-aid snowmobile trails. These trails are generally used for recreational purposes during winter months. The location of the trails can change as they require access easements through permission from property owners.

Construction of the preferred alternative, which will be a controlled access freeway section, may affect the routes of grant-in-aid snowmobile trails since these trails will not be allowed within the highway right-of-way and will need to cross the highway corridor at grade-separated locations (interchanges and overpasses).

Mitigation

No mitigation measures are proposed for impacts to the Claremont State Game Refuge or grant-in-aid snowmobile trails. Coordination between the MNDNR and Mn/DOT will continue through the project development process.

Pedestrian and Bicycle Movements

There are no pedestrian or bicycle facilities within the project area. From west to east, the preferred alternative will provide grade-separated crossings of Highway 14 at:

- Steele County Road 45 (interchange with trail on bridge)
- Highway 218 (existing interchange)
- Steele County Road 43 (interchange)

- Steele County Road 16 (overpass)
- Dodge County Road 1 (overpass)
- Dodge County Road 3 (interchange)
- Highway 56/Dodge County Road 5 (interchange)

These grade-separated crossings will allow for safe crossing of the highway corridor for pedestrians and bicyclists.

Since publication of the Draft EIS, Mn/DOT has been approached by a group pursuing an extension of the Stagecoach regional trail that would potentially run through the eastern third of the project area. Currently, their preferred alignment for the trail would parallel the DM&E rail line from Dodge Center to Claremont. The preliminary design of the highway corridor was completed in a manner that would not preclude the future construction of a trail by a third party along the south side of the railroad tracks.

A sidewalk extension is planned at Steele County Road 45 that will extend an existing sidewalk from SE 22nd Street across Highway 14 to the St. Thomas – Gainey Conference Center. A sidewalk currently exists along the east side of County Road 45 north of SE 22nd Street. The preferred alternative includes extending the sidewalk south along County Road 45 to the north ramp terminal intersection. Pedestrians will be directed to cross County Road 45 at this location. The sidewalk will further extend south along the west side of County Road 45 to the St. Thomas – Gainey Conference Center entrance. The County Road 45 Bridge over Highway 14 has been designed to include a sidewalk.

Mitigation

No other mitigation beyond the improvements discussed above is proposed at this time.

Environmental Justice

The Draft EIS included an evaluation of the entire project corridor for environmental justice issues including the potential effects to an identifiable low-income population located south of Highway 14 in the City of Claremont. The Draft EIS concluded there would be no disproportionately high and adverse effects on minority populations or low-income populations as a result of the proposed alternatives (see Draft EIS Section 4.1 – Environmental Justice).

Mitigation

No mitigation measures are proposed since no disproportionately high and adverse effects are anticipated on minority and/or low-income populations.

Transit Services

The preferred alternative will potentially have a positive impact on the quality of transit service along the corridor and beyond as a result of improved traffic

operations. Short-term adverse impacts to transit services may result from construction activities including minor detours or construction delays. See Draft EIS Section 4.1 – Transit Services for a description of transit options available in the project area.

Mitigation

No mitigation measures are proposed.

Utilities

Construction of the preferred alternative will require the relocation of some local and regional utility services. Coordination and cooperation with the utility service providers will occur during the final design phase of the project. See Draft EIS Section 4.1 – Utilities for a description of utilities located in the project area.

Mitigation

Coordination with utility providers will occur during the final design phase of the project to ensure all utilities within the area are identified, so avoidance and minimization measures can be further implemented. No other mitigation measures are proposed.

As discussed in the Draft EIS, certain utilities require environmental analysis under the State of Minnesota environmental review program (Minnesota Rules 4410.4300) for utilities currently administered by the Minnesota Department of Commerce and Minnesota Public Utilities Commission. In addition, Minnesota Statutes 85.415 requires utility companies to obtain permits from the MnDNR to cross state owned lands and waters. Such permits include provision for environmental analysis and the minimization/mitigation of adverse impacts on the environment.

Contaminated Properties

The presence of potentially contaminated properties (defined as properties where soil and/or groundwater is impacted with pollutants, contaminants, or hazardous materials) is a concern in the development of highway projects because of 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. The primary step in recognizing and evaluating potentially contaminated properties is completing a Phase I Environmental Site Assessment (ESA).

A Phase I ESA was completed in the summer 2007 followed by a supplemental Phase I ESA in June 2008. A complete summary of the sites identified in the Phase I ESA was documented in the Draft EIS (see Section 4.1 – Contaminated Properties).

According to the Phase I ESA, approximately 22 medium and high risk sites were identified within or in close proximity (approximately 500 ft.) of the preferred alternative improvements. The potentially contaminated properties

(low-, medium-, high-risk sites) are depicted on Figures A1 through A8 found in Appendix A.

Mitigation

Prior to construction activities, properties identified as having the greatest potential to directly impact the preferred alternative will be further evaluated during the final design and associated processes. During the final design and construction and/or right-of-way process, potentially contaminated properties with a potential to impact the preferred alternative may be drilled and sampled, if necessary, to determine the extent and magnitude of contaminated soil or groundwater. The results of these investigations will be used to determine if the impact of contaminated materials on the preferred alternative can be avoided and/or minimized through design refinements, right-of-way refinements, and determining if the improvements will be on a fill or cut section. Construction work will be conducted in compliance with all state and federal laws and regulations.

If necessary, a plan will be developed by Mn/DOT for properly handling and treating contaminated soil and/or groundwater. Mn/DOT will work with the Petroleum Brownfields Program and/or the Voluntary Investigation and Cleanup Programs at the Minnesota Pollution Control Agency (MPCA), as appropriate, to obtain assurances that Mn/DOT's contaminated site cleanup work and/or contaminated site acquisition will not associate it with long-term environmental liability for the contamination.

Architectural and Archaeological Resources

In compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (36 CFR 800) and Section 4(f) of the Department of Transportation Act of 1966 (49 USC 303, 23 USC 138), a cultural resources investigation of the proposed Highway 14 corridor was conducted. The Draft EIS Section 4.2 – Architectural and Archaeological Resources provided a summary of the Phase I and Phase II evaluations completed for this project. Copies of the Phase I and Phase II reports are available for review at the Mn/DOT District 6 Offices in Rochester, Minnesota.

Based on the findings of the reports, there are a total of eleven historic resources recommended eligible for listing on the National Register of Historic Places (NRHP) within the area of potential effect (APE) for the preferred alternative. Figures A1 through A8, located in Appendix A, depict the locations of the resources. The following historic resources have been further evaluated for the preferred alternative:

- Arendts Farmstead (DO-CLT-014)
- Four segments of the Winona & St. Peter Railroad Corridor (DO-CLT-030, DO-CLT-017, DO-WAS-040, and ST-HAV-011)
- Lehmann Farmstead (DO-CLT-031)
- Lehmann Farmstead (DO-CLT-047)

- A. and R. Kasper Farmhouse (ST-ONA-014)
- One segment of the Burlington, Cedar Rapids & Northern Railroad Corridor (ST-ONA-015)
- One segment of the Minnesota Central Railroad Corridor (ST-ONA-018)
- Homeyer Farm (ST-HAV-032)
- Pichner Farmstead (ST-HAV-034)
- Dunker Farmstead (ST-HAV-035)
- Thompson Farmstead (ST-HAV-038)

No NRHP-eligible archaeological sites will be impacted by the preferred alternative as documented in the findings from a Phase II Evaluation completed in June 2009. Adverse affects on historic structures can result from right-of-way/relocation impacts, as well as visual and auditory effects and other possible direct and indirect impacts during and after construction. Table 8 below identifies the determinations made whether or not a historic structure is adversely affected by the preferred alternative and what type of impact is anticipated. The Minnesota State Historic Preservation Office (SHPO) has concurred with the findings presented in Table 8 (see Appendix B for Mn/DOT Cultural Resources and SHPO letters).

Table 8 – Preferred Alternative Effects on Historic Resources

Property Name	SHPO Inventory Number	Adverse Effect Yes/No	Type of Effect
Arendts Farmstead	DO-CLT-014	No	N/A
Segments of Winona & St. Peter Railroad Corridor	DO-CLT-030, DO-CLT-017, DO-WAS-040, and ST-HAV-011	No	N/A
Lehmann Farmstead	DO-CLT-031	No	N/A
Lehmann Farmstead	DO-CLT-047	Yes	Right-of-Way Acquisition and Removal of Structure
A. and R. Kasper Farmhouse	ST-ONA-014	No	N/A
Burlington, Cedar Rapids & Northern Railroad Corridor	ST-ONA-015	No	N/A
Minnesota Central Railroad Corridor	ST-ONA-018	No	N/A
Homeyer Farm	ST-HAV-032	Yes	Right-of-Way Acquisition

Property Name	SHPO Inventory Number	Adverse Effect Yes/No	Type of Effect
Pichner Farmstead	ST-HAV-034	Yes	Audible/Visual
Dunker Farmstead	ST-HAV-035	Yes	Right-of-Way Acquisition and Removal of Structure
Thompson Farmstead	ST-HAV-038	Yes	Audible/Visual

The Final Section 4(f) Evaluation (located in Appendix C) provides greater detail of potential effects to the Dunker Farmstead (ST-HAV-035), Homeyer Farm (ST-HAV-032), and Lehmann Farmstead (DO-CLT-047) since the proposed transportation improvement would result in a Section 4(f) use of these historic resources.

Mitigation

The mitigation measures have been incorporated into a Memorandum of Agreement (MOA) prepared under Section 106 that was developed and executed by Mn/DOT, FHWA, and the SHPO (see Appendix B).

Mitigation contained in the MOA includes further documentation, by Mn/DOT, of historic structures within the project area and prior to demolition of identified eligible properties. Mn/DOT is also required to seek the transfer of ownership of the Dunker (ST-HAV-035) and Lehman (DO-CLT-47) properties with the intent of the new owner moving/rebuilding the barns for use at new locations. Lastly, Mn/DOT will work with the construction contractor to protect unevaluated portions of archaeological Site 21DO0014. Further coordination with SHPO on these mitigation requirements will occur throughout the remaining phases of the project development process.

4.2 WHAT ARE THE NATURAL ENVIRONMENT IMPACTS?

Noise

With the identification of the preferred alternative, a more detailed analysis of noise impacts was completed. The objective of this analysis was to further quantify the potential impacts of the preferred alternative using a more detailed model that considers a specific alignment, locations of receptors, and topography of the area. The results of this modeling were then used to determine the feasibility and cost reasonableness of using noise walls to provide mitigation for the project's impacts on receptors.

Noise Description

Noise is defined as any unwanted sound. Sound travels in a wave motion and produces a sound pressure level. This sound pressure level is commonly measured in decibels. Decibels (dBA) represent the logarithmic increase in sound energy relative to a reference energy level. A sound increase of three dBA is barely perceptible to the human ear, a five dBA increase is clearly

noticeable, and a ten dBA increase is heard as twice as loud. For example, if the sound energy is doubled (e.g., the amount of traffic doubles), there is a three dBA increase in noise, which is just barely noticeable to most people. On the other hand, if traffic increases to where there is ten times the sound energy level over a reference level, then there is a ten dBA increase and it is heard as twice as loud.

For highway traffic noise, an adjustment, or weighting, of the high- and low-pitched sounds, is made to approximate the way that an average person hears sounds. The adjusted sound levels are stated in units of "A-weighted decibels" (dBA). In Minnesota, traffic noise impacts are evaluated by measuring and/or modeling the traffic noise levels that are exceeded ten percent and 50 percent of the time during the hour of the day and/or night that has the heaviest traffic. These numbers are identified as the L_{10} and L_{50} levels. The L_{10} value is compared to FHWA noise abatement criteria.

The following chart provides a rough comparison of the noise levels of some common noise sources.

Sound Pressure Level (dBA)	Noise Source
140	Jet Engine (at 25 meters)
130	Jet Aircraft (at 100 meters)
120	Rock and Roll Concert
110	Pneumatic Chipper
100	Jointer/Planer
90	Chainsaw
80	Heavy Truck Traffic
70	Business Office
60	Conversational Speech
50	Library
40	Bedroom
30	Secluded Woods
20	Whisper

Source: "A Guide to Noise Control in Minnesota," Minnesota Pollution Control Agency, http://www.pca.state.mn.us/programs/pubs/noise.pdf and "Highway Traffic Noise," FHWA, http://www.fhwa.dot.gov/environment/htnoise.htm

State of Minnesota Noise Regulations

State noise standards are for a one-hour period and apply to outdoor areas. The standards are in terms of the L_{10} and L_{50} noise descriptors. The L_{10} is the sound level that is exceeded for ten percent, a total of six minutes, of the hour of interest. The L_{50} is the sound level that is exceeded for 50 percent, a total of thirty minutes, of the hour of interest.

Table 9 provides the Minnesota State Noise Standards for three Noise Area Classifications (NAC), and for daytime, nighttime, L_{10}, and L_{50}. The standards for NAC-1 apply to residential areas and other uses intended for overnight sleeping (hotels, motels, mobile homes, etc.). The NAC-1 standards also apply to schools, churches, medical services, and park areas. The nighttime standards differ from the daytime standards only in areas intended for overnight sleeping. The NAC-1 daytime standards apply during nighttime hours at other NAC-1 land-use areas not intended for overnight sleeping. The NAC-2 standards are applicable to certain NAC-1 land uses if the following criteria are met:

- The building noise attenuation is at least 30 decibels (dBA);
- The building has year-round, indoor climate control;
- The building has no facilities for outdoor activities.

Table 9 – Minnesota State Noise Standards

Noise Area Classification	General Land Use Type	Sound Level (dBA)			
		Daytime		Nighttime	
		L10	L50	L10	L50
1	Residential	65	60	55	50
2	Commercial	70	65	70	65
3	Industrial	80	75	80	75

Federal Noise Abatement Criteria

In the Federal Noise Abatement criteria, a noise impact is defined as occurring when the predicted traffic noise levels:

- Approach or exceed the noise abatement criteria (see Table 10);
- Substantially exceed the existing noise levels.

The Federal Noise Abatement Criteria (23 CFR, Procedures for Abatement of Highway Traffic Noise and Construction Noise) are in terms of the L_{eq} or L_{10} descriptor. In Minnesota, the L_{10} descriptor is used to identify impacts and has been used to identify impacts in this analysis. The criteria for activity category E (Table 10) are in terms of interior noise levels and are applied where there are no exterior activities to be affected by traffic noise. All other criteria are in terms of exterior noise levels.

The State of Minnesota has defined “approach or exceed” as being within one dBA or less of the activity category of the NAC, and “substantially exceed” as an increase of five dBA or more over existing noise levels.

Table 10 – FHWA Noise Abatement Criteria Hourly A-Weighted Sound Level in Decibels

Activity Category	L_{10} (h)	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 the area is to continue to serve its 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 or B above.
D	No Limit	Undeveloped Lands
E	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Traffic-Related Noise Analysis

As part of this EIS, a detailed noise analysis has been conducted, and a proposed noise mitigation plan prepared. Many residences are located adjacent to the project area, and receptor locations were chosen that are representative of the various groupings of residences.

Methodology

Existing (2009) and future (2030) noise levels were modeled using the Federal Highway Administration (FHWA) noise prediction model STAMINA 2.0, as modified for use by Mn/DOT. Noise projections were based on 2006 traffic counts, 2030 forecasted peak-hour traffic volumes, time of day, vehicle speeds, mix of vehicles, roadway grades, and the distance from the roadway center-of-lanes to the receptor (horizontal and vertical).

Noise Monitoring

Noise level monitoring is commonly performed during a noise study to document existing noise levels. Monitored noise levels can be used as a baseline of the possible ambient levels that can occur. The monitoring done in this study was not intended to verify or validate the modeled noise levels. The monitoring was done without the collection of measured volumes, speeds, vehicle mixes, and lane distribution of traffic. With the traffic volume variations that exist at the monitoring sites, noise modeling likely best describes the possible worst hour scenarios for both existing and future noise levels.

The noise levels along Highway 14 were monitored on October 30, and November 2, 2006 in the near vicinity of modeled noise receptor locations within the project area. Three noise receptor locations (NM1 through NM3) were chosen for monitoring sites within the project area. These sites are illustrated on the conceptual design layouts located in Appendix A. The monitoring results are provided in Table 11. Sound levels are expressed in dBA.

Table 11 – Monitored Noise Level

Location	General Location	Time	Monitored Noise Level (dBA)	
			L_{10}	L_{50}
NM1	Located in the southeast quadrant of the Highway 14/County Road 45 Interchange.	3:04PM-4:04 PM (daytime)	64	60
		3:45-4:45 AM (nighttime)	58	53
NM2	Located along Elm Street south of downtown Claremont.	4:07-5:07 PM (daytime)	62	56
		5:50-6:50 AM (nighttime)	59	53
NM3	Located south of existing Highway 14 between County Road 5 and Highway 56 intersections.	5:15-6:15 PM (daytime)	63	53
		5:55-6:55 AM (nighttime)	56	52
	Shaded cells represent noise levels currently above MPCA State standards			

Application of State and Federal Regulations

Mn/DOT's Noise Policy is based on state and federal noise regulations. Projects without federal funding do not need to meet federal noise regulations. However, those projects that do not receive federal funding will, nevertheless, have to meet State noise regulations, be evaluated by Mn/DOT for need for noise mitigation, where necessary be evaluated for cost-effectiveness and reasonableness of any mitigation, and all evaluations must be done using the same criteria and methodology that are applied to federally-funded projects. This procedure insures that Mn/DOT's decisions on noise levels are made consistently with all projects, despite funding sources.

In this project, future noise levels exceeded both the Federal Noise Abatement Criteria and the State Noise Standards at many sensitive noise receptors. Therefore, noise abatement measures are included in this analysis. The project must comply with both the State of Minnesota Noise Standards and the Federal Noise Abatement Criteria. To do this, all reasonable and feasible noise mitigation measures are planned as a part of the project. Even with these noise mitigation measures, the Minnesota Noise Standards are exceeded at many locations. Therefore, a Noise Standards Exemption Request will be submitted to the Commissioners of the MPCA. This document is a means of demonstrating that all reasonably available noise mitigation measures are employed as part of the project.

Noise Analysis Results

The MINNOISE/STAMINA 2.0 noise model applied five scenarios for comparison of noise levels. The scenarios are:

1. Existing conditions (2009)
2. No Build Alternative (2030)
3. Build Alternative 3 (2030) with no new noise barriers along the corridor

4. Build Alternative 3 (2030) with new 10-foot high noise barriers at select locations
5. Build Alternative 3 (2030) with new 20-foot high noise barriers at select locations

The noise analysis for the daytime L_{10} noise levels is referred to in this discussion. For purposes of addressing the Minnesota nighttime and L_{50} standards, analysis results are also included in Tables 12 through 15 for the daytime L_{50}, nighttime L_{10}, and nighttime L_{50} noise levels.

Noise modeling was conducted at 72 receptor sites. See Tables 12 through 15 for the results of the noise analysis, and comparison to the Minnesota State Noise Standards and the Federal Noise Abatement Criteria. Receptor locations are shown on Figures A1 through A8, located in Appendix A. Due to the length of the Highway 14 improvement corridor, it was divided into a western half and eastern half. Receptors were numbered based upon their location along the corridor.

Due to the limited number of receptors that can be entered into MINNOISE, where applicable, some potential receptors were represented by similarly located receptors in the model. The only registered plats for residential development identified along the corridor were those of a development north of Highway 14 and east of County Road 6. These plats were represented in the model scenarios.

All receptors were entered into the MINNOISE model using Alpha factors equaling 0.5. Alpha factors within MINNOISE are factors that control the rate at which noise is propagated, or at what rate over distance, noise diminishes. An Alpha factor of 0.5 within MINNOISE has a noise rate of decay of 4.5dBA per doubling of distance. This is an appropriate value for propagation over soft ground with an at-grade roadway and first floor receptor.

MINNOISE calculates the amount of potential noise directly related to traffic speeds, traffic mix (percent cars and heavy trucks), and peak hour percentages of predicted future traffic (Design Year 2030 "Build" and Design Year 2030 "No Build"). Total daily traffic volumes for Highway 14 were taken from the traffic analysis completed for the Draft EIS. Average peak traffic hours along TH 14 were determined to be:

- The hour from 4:30PM to 5:30PM (Daytime) and
- The hour from 6AM to 7AM (Nighttime).

Hourly traffic counts were available at road crossings along Highway 14. The peak "daytime" traffic hour (between 7AM and 10PM) was the hour between 4:30 and 5:30PM. The peak "nighttime" traffic hour (between 10PM and 7AM) was the hour between 6AM and 7AM. Hourly traffic volumes were calculated along Highway 14 based upon the percent of total daily volume for the above mentioned hours. Speed assumptions were based on existing posted speed of 55 mph and proposed speed of 65 mph.

Table 12 – East Peak Daytime Noise Levels (4:30 – 5:30 PM)

Receiver	Applicable Noise Standard L_{10} (dBA)	Existing Daytime L_{10} (dBA)	Daytime L_{10} (dBA) No-Build	Daytime L_{10} (dBA) Build	Applicable Noise Standard L_{50} (dBA)	Existing Daytime L_{50} (dBA)	Daytime L_{50} (dBA) No-Build	Daytime L_{50} (dBA) Build
R1 E	65	53.8	57.1	61.5	60	50.3	54.6	58.9
R2 E	65	60.7	64.0	**80.0**	60	56.1	60.7	**73.5**
R3 E	65	54.5	57.8	**70.3**	60	51.0	55.3	66.2
R4 E	65	49.3	52.5	65.1	60	46.4	50.6	62.0
R5 E	65	47.3	50.5	62.6	60	44.6	48.7	59.9
R6 E	65	45.5	48.8	61.4	60	43.1	47.1	58.7
R7 E	65	44.9	48.2	60.5	60	42.6	46.6	58.0
R8 E	65	47.1	50.3	61.7	60	44.7	48.7	59.1
R9 E	65	44.2	47.4	60.6	60	41.9	45.9	58.1
R10 E	65	40.3	43.4	61.3	60	38.8	42.4	58.7
R11 E	65	40.0	43.0	63.5	60	38.5	42.0	60.6
R12 E	65	41.7	44.6	65.4	60	40.0	43.5	62.1
R13 E	65	40.0	42.9	63.0	60	38.3	41.8	60.2
R14 E	65	40.3	43.2	63.6	60	38.6	42.0	60.6
R15 E	65	41.2	44.0	67.9	60	39.4	42.8	64.2
R16 E	65	41.4	44.3	66.3	60	39.7	43.1	62.9
R17 E	65	40.2	43.1	59.3	60	38.5	41.9	57.0
R18 E	65	41.3	44.2	65.3	60	39.6	43.0	62.1
R19 E	65	40.5	43.4	**69.3**	60	38.8	42.3	65.3
R20 E	65	41.5	44.4	**71.7**	60	39.8	43.2	67.2
R21 E	65	40.4	43.3	**71.7**	60	38.6	42.1	67.2
R22 E	65	40.3	43.3	**70.9**	60	38.6	42.1	66.5
R23 E	65	40.9	43.9	**79.6**	60	39.2	42.6	**73.1**
R24 E	65	41.5	44.4	68.4	60	39.7	43.2	64.6
R25 E	65	41.7	44.6	66.5	60	39.9	43.3	63.0
R26 E	65	42.1	45.0	63.9	60	40.2	43.7	60.9
R27 E	65	40.4	43.4	60.3	60	38.7	42.2	57.6
R28 E	65	66.9	**69.8**	45.2	60	61.3	65.5	44.0
R29 E	65	**69.5**	**72.5**	45.9	60	63.2	67.5	44.5
R30 E	65	68.5	**71.5**	44.8	60	62.5	66.8	43.5
R31 E	65	68.9	**71.8**	44.5	60	62.7	67.0	43.2
R 32 E	65	**71.2**	**74.3**	44.5	60	64.5	68.9	43.2
R33 E	65	66.8	**69.7**	44.6	60	61.2	65.4	43.3
R34 E	65	66.8	**69.7**	43.9	60	61.2	65.4	42.6
R35 E	65	**69.2**	**72.1**	43.0	60	62.9	67.3	41.7
R36 E	65	66.0	68.9	43.5	60	60.7	64.8	42.2
R37 E	65	65.5	68.3	42.5	60	60.1	64.2	41.2
R38 E	65	65.8	68.6	42.6	60	60.3	64.5	41.3
R39 E	65	65.0	67.8	42.7	60	59.6	63.8	41.5
R40E	65	57.0	59.8	45.6	60	53.3	57.1	44.1

Shaded cells represent those locations exceeding applicable noise standards. **Bold** values approach/exceed the FHWA Criteria of 70 dBA.

Table 13 – East Peak Nighttime Noise Levels (6:00 – 7:00 AM)

Receiver	Applicable Noise Standard L_{10} (dBA)	Existing Daytime L_{10} (dBA)	Daytime L_{10} (dBA) No-Build	Daytime L_{10} (dBA) Build	Applicable Noise Standard L_{50} (dBA)	Existing Daytime L_{50} (dBA)	Daytime L_{50} (dBA) No-Build	Daytime L_{50} (dBA) Build
R1 E	55	51.9	55.2	59.7	50	47.5	52.1	56.4
R2 E	55	58.7	62.1	**77.8**	50	53.2	58.1	**70.4**
R3 E	55	52.6	55.9	68.3	50	48.3	52.8	63.3
R4 E	55	47.4	50.6	63.2	50	43.9	48.2	59.3
R5 E	55	45.4	48.6	60.8	50	42.1	46.3	57.3
R6 E	55	43.7	46.8	59.5	50	40.6	44.7	56.2
R7 E	55	43.1	46.2	58.6	50	40.1	44.2	55.5
R8 E	55	45.3	48.3	59.8	50	42.2	46.3	56.5
R9 E	55	42.3	45.5	58.7	50	39.5	43.5	55.5
R10 E	55	38.4	41.4	59.3	50	36.4	40.0	56.1
R11 E	55	38.1	41.0	61.6	50	36.2	39.7	57.9
R12 E	55	39.8	42.6	63.4	50	37.7	41.1	59.4
R13 E	55	38.1	40.9	61.0	50	36.0	39.4	57.5
R14 E	55	38.4	41.2	61.6	50	36.2	39.7	57.9
R15 E	55	39.3	42.1	65.9	50	37.0	40.5	61.4
R16 E	55	39.5	42.3	64.3	50	37.3	40.8	60.1
R17 E	55	38.3	41.1	57.3	50	36.1	39.6	54.4
R18 E	55	39.4	42.2	63.3	50	37.2	40.7	59.3
R19 E	55	38.6	41.5	67.2	50	36.5	40.0	62.3
R20 E	55	39.6	42.5	**69.6**	50	37.4	40.9	64.2
R21 E	55	38.5	41.5	**69.6**	50	36.2	39.9	64.2
R22 E	55	38.4	41.4	68.8	50	36.2	39.9	63.9
R23 E	55	39.0	42.0	**77.2**	50	36.7	40.5	**69.8**
R24 E	55	39.6	42.6	66.4	50	37.2	41.0	61.7
R25 E	55	39.8	42.8	64.5	50	37.4	41.2	60.2
R26 E	55	40.2	43.2	61.9	50	37.8	41.5	58.2
R27 E	55	38.5	41.5	58.3	50	36.3	40.0	55.0
R28 E	55	64.8	67.8	43.1	50	58.2	62.6	41.6
R29 E	55	67.3	**70.4**	43.8	50	60.1	64.6	42.1
R30 E	55	66.4	**69.5**	42.7	50	59.4	63.8	41.0
R31 E	55	66.7	**69.8**	42.4	50	59.6	64.1	40.7
R 32 E	55	**69.0**	**72.2**	42.4	50	61.3	65.9	40.7
R33 E	55	64.7	67.7	42.5	50	58.2	62.5	40.9
R34 E	55	64.7	67.7	41.8	50	58.2	62.5	40.2
R35 E	55	67.0	**70.1**	40.9	50	59.8	64.3	39.3
R36 E	55	63.9	66.9	41.4	50	57.7	62.0	39.8
R37 E	55	63.4	66.4	40.4	50	57.1	61.4	38.8
R38 E	55	63.7	66.7	40.6	50	57.3	61.6	38.9
R39 E	55	62.9	65.9	40.7	50	56.6	60.9	39.1
R40E	55	55.1	57.9	43.6	50	50.5	54.6	41.7

Shaded cells represent those locations exceeding applicable noise standards. **Bold** values approach/exceed the FHWA Criteria of 70 dBA.

Table 14 – West Peak Daytime Noise Levels (4:30 – 5:30 PM)

Receiver	Applicable Noise Standard L_{10} (dBA)	Existing Daytime L_{10} (dBA)	Daytime L_{10} (dBA) No-Build	Daytime L_{10} (dBA) Build	Applicable Noise Standard L_{50} (dBA)	Existing Daytime L_{50} (dBA)	Daytime L_{50} (dBA) No-Build	Daytime L_{50} (dBA) Build
R1W	65	43.7	46.4	61.0	60	41.1	44.6	58.6
R2 W	65	67.5	**70.4**	53.2	60	61.6	65.8	51.4
R3 W	65	60.8	63.5	51.0	60	56.3	60.2	49.4
R4 W	65	60.1	62.9	52.0	60	56.0	59.8	50.3
R5 W	65	65.8	68.7	56.0	60	60.4	64.6	54.1
R6 W	65	61.2	63.9	54.7	60	56.9	60.7	52.8
R7 W	65	59.3	62.1	63.2	60	55.4	59.2	60.3
R8 W	65	60.3	63.0	55.0	60	56.2	60.0	53.2
R9 W	65	60.3	63.0	55.5	60	56.2	60.0	53.6
R10 W	65	67.9	**70.8**	58.4	60	62.0	66.3	56.2
R11 W	65	54.8	57.5	**73.7**	60	51.6	55.3	68.7
R12 W	65	56.0	58.8	64.4	60	52.7	56.3	61.3
R13 W	65	58.3	61.1	66.9	60	54.5	58.3	63.4
R14 W	65	59.8	62.5	60.2	60	55.8	59.6	57.8
R15 W	65	54.9	57.6	61.8	60	51.7	55.4	59.1
R16 W	65	60.1	62.9	63.1	60	56.0	59.9	60.1
R17 W	65	64.1	67.1	68.6	60	59.0	63.2	64.7
R18 W	65	61.3	64.2	65.7	60	56.8	60.9	62.3
R19 W	65	58.6	61.4	62.9	60	54.7	58.6	60.0
R20 W	65	54.1	56.9	58.4	60	51.0	54.7	56.0
R21 W	65	61.2	64.1	65.5	60	56.8	60.8	62.1
R22 W	65	67.9	**70.8**	**72.2**	60	62.9	67.1	68.4
R23 W	65	61.6	64.4	65.7	60	58.0	61.9	63.0
R24 W	65	66.5	**69.4**	**70.7**	60	61.9	66.0	67.2
R25 W	65	67.5	**70.5**	**71.7**	60	62.8	67.0	68.0
R26 W	65	61.7	64.5	65.7	60	58.1	62.0	63.1
R27 W	65	59.3	62.2	63.4	60	56.1	60.0	61.0
R28 W	65	67.3	**70.2**	**71.4**	60	62.6	66.8	67.7
R29 W	65	66.9	**69.9**	**71**	60	62.3	66.5	67.5
R30 W	65	67.3	**70.3**	**71.4**	60	62.6	66.8	67.8
R31 W	65	68.9	**71.6**	**73.0**	60	64.1	68.0	**69.3**
R32 W	65	67.3	**69.3**	**69.6**	60	62.3	65.3	65.9

Shaded cells represent those locations exceeding applicable noise standards. **Bold** values approach/exceed the FHWA Criteria of 70 dBA.

Table 15 – West Peak Nighttime Noise Levels (6:00 – 7:00 AM)

Receiver	Applicable Noise Standard L_{10} (dBA)	Existing Daytime L_{10} (dBA)	Daytime L_{10} (dBA) No-Build	Daytime L_{10} (dBA) Build	Applicable Noise Standard L_{50} (dBA)	Existing Daytime L_{50} (dBA)	Daytime L_{50} (dBA) No-Build	Daytime L_{50} (dBA) Build
R1 W	55	41.8	44.5	59.2	50	38.6	42.2	56.1
R2 W	55	65.3	68.4	51.3	50	58.5	62.9	49.0
R3 W	55	58.8	61.6	49.1	50	53.4	57.5	47.0
R4 W	55	58.2	61.0	50.0	50	53.2	57.2	47.9
R5 W	55	63.7	66.7	54.2	50	57.4	61.7	51.6
R6 W	55	59.2	62.0	52.7	50	54.0	58.1	50.4
R7 W	55	57.4	60.2	61.3	50	52.6	56.6	57.7
R8 W	55	58.3	61.1	53.1	50	53.4	57.4	50.8
R9 W	55	58.3	61.1	53.6	50	53.4	57.4	51.2
R10 W	55	65.7	68.8	56.5	50	59.0	63.4	53.7
R11 W	55	52.9	55.6	**71.6**	50	49.0	52.8	65.7
R12 W	55	54.2	56.9	62.5	50	50	53.8	58.7
R13 W	55	56.4	59.2	65.0	50	51.8	55.7	60.7
R14 W	55	57.9	60.7	58.3	50	53.0	57.0	55.2
R15 W	55	53.0	55.8	59.9	50	49.1	52.9	56.6
R16 W	55	58.2	61.0	61.2	50	53.1	57.3	57.5
R17 W	55	62.1	65.1	66.7	50	56.0	60.4	61.9
R18 W	55	59.3	62.3	63.8	50	53.9	58.2	59.6
R19 W	55	56.6	59.5	61.0	50	51.9	56.0	57.4
R20 W	55	52.2	55.0	56.5	50	48.3	52.2	53.5
R21 W	55	59.2	62.2	63.6	50	53.9	58.1	59.4
R22 W	55	65.8	68.8	**70.2**	50	59.9	64.3	65.6
R23 W	55	59.6	62.5	63.8	50	55.2	59.3	60.4
R24 W	55	64.5	67.5	68.8	50	59.0	63.3	64.5
R25 W	55	65.5	68.6	**69.7**	50	59.8	64.3	65.2
R26 W	55	59.8	62.7	63.8	50	55.4	59.5	60.5
R27 W	55	57.4	60.3	61.5	50	53.5	57.5	58.5
R28 W	55	65.3	68.3	**69.5**	50	59.6	64.1	65.0
R29 W	55	64.9	68.0	**69.1**	50	59.4	63.8	64.7
R30 W	55	65.3	68.4	**69.5**	50	59.7	64.1	65.0
R31 W	55	66.8	**69.7**	**71.1**	50	61.2	65.2	66.5
R32 W	55	65.2	66.2	67.7	50	59.3	61.3	64.0
	Shaded cells represent those locations exceeding applicable noise standards. **Bold** values approach/exceed the FHWA Criteria of 70 dBA.							

Noise Wall Mitigation Analysis

When noise impacts are identified, a noise wall mitigation analysis must be performed. Figures A1 through A8, located in Appendix A, illustrate the noise receptor locations and noise mitigation measures (walls) that have been analyzed for cost-effectiveness. The figures illustrate the location of all analyzed noise walls that were considered for determining acoustic effectiveness (5 dBA or greater reduction) and cost effectiveness.

With noise levels exceeding state and federal noise standards, a mitigation analysis was required and completed to determine if measures, such as a noise wall, are reasonable and effective in attenuating the noise at those locations.

To have a noise wall considered for mitigation, one of the following factors must exist:

- The existing noise levels are in excess of the state noise standards.
- The predicted noise levels are in excess of the state noise standards in the design year for the project.
- The noise levels are predicted to be "substantially" above current noise levels in the project design year. "Substantial" is defined as a 5 dBA or greater increase in noise.
- The predicted noise levels for the design year approach or exceed the appropriate federal NAC limits. "Approaching" is defined as noise levels being within 1 dBA of the FHWA NAC. In most instances, levels predicted as 69 dBA or greater, yet less than 70 dBA, are considered as approaching the FHWA NAC of 70 dBA.

With noise levels exceeding state and federal noise standards within the Highway 14 project area, a mitigation analysis was required to determine if measures, such as a noise wall, are feasible to construct, effective in attenuating noise (≥5 dBA reduction), and reasonable in terms of cost-effectiveness.

Noise Wall Feasibility and Reasonableness

The Federal Highway Administration states that "feasibility deals primarily with engineering considerations (e.g., can a barrier be built given the topography of the location; can a substantial noise reduction be achieved given certain access, drainage, safety, or maintenance requirements; are other noise sources present in the area, etc.). Reasonableness is a more subjective criterion than feasibility. It implies that common sense and good judgment were applied in arriving at a decision."

The FHWA identifies the following to consider when determining whether or not a mitigation measure is reasonable:

1. Noise Abatement Benefits
    a. Amount of noise reduction provided
    b. Number of people protected
2. Cost of Abatement
    a. Total cost
    b. Cost variation with degree of benefits provided
3. Views of the Impacted Residents
    a. Community wishes
    b. Aesthetic impacts (e.g., barrier height, material type, etc.)
    c. Desire for a surrounding view

4. Absolute Noise Levels
    a. Existing noise levels
    b. Future traffic noise levels
    c. Context and intensity of noise levels (see 40 CFR, Part 1508.27)
5. Change in Noise Levels
    a. Difference between the future traffic noise levels and the existing noise levels
    b. Difference between the future traffic noise levels for the build alternative and the no-build alternative
6. Development Along the Highway
    a. Amount of development that occurred before and after the initial construction of the highway
    b. Type of development (e.g., residential, commercial, mixed, etc.)
    c. Extent to which zoning or land use is changing
    d. Effectiveness of land use controls implemented by local officials to prevent incompatible development
7. Environmental Impacts of Abatement Construction
    a. Effects on the natural environment
    b. Noise reduction during highway construction

Taking these factors into consideration, there are 26 receptors within this analysis that exceed MPCA noise standards and merit noise wall consideration. Thirteen noise walls were modeled and analyzed to determine the level of noise reduction provided for each receptor that exceeded MPCA noise standards. The thirteen noise walls were all considered to be feasible from a constructability standpoint. Figures A1 through A8, show the noise receptor locations and noise mitigation measures that have been analyzed for acoustic effectiveness and cost effectiveness. Multiple scenarios were run to optimize the length of the noise walls. Only the wall length scenarios that showed the most effective noise reduction are included.

Table 16 illustrates the complete noise impact survey including Design Year 2030 levels without a noise barrier, Design Year 2030 with a noise barrier, and resulting noise level differences for the Daytime and Nighttime scenarios. Table 16 also illustrates the modeled noise reduction with 10- and 20-foot walls at each receptor. The number of residences with at least a 5 dBA reduction is also included in Table 16. A total of seven analyzed noise walls

were determined to be acoustically effective, which required they proceed in the process to determine whether or not they are cost-effective.

Cost-Effectiveness Analysis

For noise walls to be considered reasonable, the cost-effectiveness shall not exceed $3,250 per decibel of reduction per residence. The cost-effectiveness is calculated for individual barrier segments. For barriers to be warranted, they must be acoustically effective by providing a meaningful reduction in noise, defined as a five decibel reduction or more. The noise wall cost-effectiveness calculations for the seven walls determined to be acoustically effective are included in Table 16. Noise walls might not be cost-effective for the following reasons:

- Cross-streets may create a situation where noise mitigation cannot be constructed continuously along the noise source.
- Residential density is low.

Evaluation of Other Noise Abatement Measures

Noise walls have been chosen as the most cost-effective noise mitigation measure available for this project. Other noise mitigation measures have been considered, as listed in 23 CFR 772.13(c). They are addressed below:

- Traffic management measures:

The primary purpose of the facility is to move people and goods. Restrictions of certain vehicles or speeds would be inconsistent with the purpose of the project.

- Alteration of horizontal and vertical alignments:

The project was realigned for practical reasons based on grade and safety. The chosen alignment results in a minimum of impacted sensitive receptor sites.

- Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development that would be adversely impacted by traffic noise:

Acquisition of property for noise mitigation purposes is not a part of the project scope. However, efforts will be made through local planning authorities to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized.

- Noise insulation of public use or nonprofit institutional structures:

This is a noise abatement measure that would not affect the noise level violations of Minnesota State Noise Standards because these standards are exterior standards. FHWA guidelines and Mn/DOT policy recommend that only public buildings, such as schools and hospitals, be considered for acoustical insulation. No public buildings are located within the Highway 14 noise modeling area.

Mitigation

Traffic noise impacts occur for Highway 14 when modeled traffic noise levels approach or exceed the FHWA NAC-1 (70 dBA) level by one decibel, when impacts are modeled exceeding state noise guidelines, or those which noise levels exceed the FHWA NAC category B criteria of a 5 dBA or more increase per receptor.

A mitigation analysis was performed to determine the feasibility of constructing noise walls, the acoustical effectiveness of 10-foot and 20-foot noise walls at feasible locations, and the reasonableness of the noise walls in terms of cost-effectiveness. The mitigation analysis identified 26 receptors that exceeded MPCA noise standards and that merited noise wall consideration. Thirteen noise walls were modeled and analyzed to determine the level of noise reduction provided for each receptor that exceeded MPCA noise standards.

The thirteen noise walls were all considered to be feasible from a constructability standpoint. A total of seven analyzed noise walls were determined to be acoustically effective (≥5 dBA reduction), which required they proceed in the process to determine whether or not they are cost-effective. The cost-effectiveness analysis revealed that a 20-foot noise wall at a location north of Highway 14 and east of Steele County Road 45 (receptors R22W, R23W, R25W, R26W, R28W, R29W, and R30W) is both acoustically effective in mitigating noise and also meets the Mn/DOT cost criteria of $3,250.00 per decibel of reduction per residence, making it economically reasonable. The registered undeveloped residential plats were represented in these cost effectiveness calculations as R22 and R26. Based upon the location of this analyzed wall, taking into account the proper setback, sight lines, and location, a 20-foot noise wall that is approximately 4,700 feet in length is a feasible noise mitigation alternative. Taking this into account, a noise wall should be considered at this location for design and construction.

As the final design stage of this project progresses, the noise analysis may need to be refined to take into account any major design changes. The construction materials, exact location, and height of this wall will be finalized during the detail design process and/or during the development of the noise exemption request.

In accordance with FHWA procedures, Mn/DOT will solicit input from the residents directly affected by the potential noise wall that was shown to have met the cost reasonableness criteria. The purpose of the process will be to determine whether a majority of the residents do or do not support construction of the identified noise wall adjacent to their property. The process will involve sending informational material to each affected residence explaining the noise analysis process and the specifics of the noise wall being considered adjacent to their property. The materials will also include a response form to officially declare support or opposition to the proposed noise wall. Coordination with residents directly affected by the potential noise wall will occur during the final design phase of the project.

Table 16 – Noise Barrier Cost Effectiveness

Wall	Receptor	Land Use	Number of Receptors Represented	Modeled Existing Noise (dBA)	No Build 2030 Noise (dBA)	Build 2030 Noise Level (dBA) with		Noise Reduction (dBA) with Barrier	Number of Receptors with 5 dBA Reduction	Wall Length (feet)	Wall Height (feet)	Acoustically Effective (≥5 dBA) (Yes/No)	Cost Effectiveness (cost/dBA/Res)	Wall Proposed (Yes/No)
						No Barrier	Barrier							
A1	R22W	Residential	1	67.9	**70.8**	**72.2**	**70.5**	1.7	0	4700	10	No	N/A	No
A1	R23W	Residential	10	61.6	64.4	65.7	65.4	0.3						
A1	R25W	Residential	1	67.5	**70.5**	**71.7**	**69.7**	2.0						
A1	R26W	Residential	12	61.7	64.5	65.7	65.3	0.4						
A1	R28W	Residential	3	67.3	**70.2**	**71.4**	**69.7**	1.7						
A1	R29W	Residential	2	66.9	**69.9**	**71.0**	**69.2**	1.8						
A1	R30W	Residential	20	67.3	**70.3**	**71.4**	**69.6**	1.8						
B	R24W	Residential	1	66.5	**69.4**	**70.7**	**69.7**	1.0	0	690	10	No	N/A	No
C	R21W	Residential	1	61.2	64.1	65.5	65.2	0.3	0	550	10	No	N/A	No
D	R17W	Residential	1	64.1	67.1	68.6	68.3	0.3	0	2060	10	No	N/A	No
D	R18W	Residential	2	61.3	64.2	65.7	65.3	0.4						
E	R12W	Residential	1	56.0	58.8	64.4	63.2	1.2	0	1556	10	No	N/A	No
E	R13W	Residential	1	58.3	61.1	66.9	66.3	0.6						
F	R24E	Residential	1	41.5	44.4	68.4	66.2	2.2	0	626	10	No	N/A	No
F	R25E	Residential	1	41.7	44.6	66.5	65.1	1.4						
G	R19E	Residential	1	40.5	43.4	**69.3**	68.6	0.7	0	710	10	No	N/A	No
H	R17E	Residential	1	40.2	43.1	59.3	59.0	0.3	0	1135	10	No	N/A	No
H	R18E	Residential	1	41.3	44.2	65.3	64.9	0.4						
I	R15E	Residential	1	41.2	44.0	67.9	67.1	0.8	0	2588	10	No	N/A	No
I	R16E	Residential	1	41.4	44.3	66.3	65.5	0.8						
J	R12E	Residential	1	41.7	44.6	65.4	64.4	1.0	0	776	10	No	N/A	No
K	R1E	Residential	1	53.8	57.1	61.5	60.0	1.5	0	2534	10	No	N/A	No
K	R2E	Residential	1	60.7	64.0	**80.0**	**80.0**	0.0						
K	R3E	Residential	1	54.5	57.8	**70.3**	67.7	2.6						
K	R4E	Residential	1	49.3	52.5	65.1	64.8	0.3						
L	R31W	Residential	1	68.9	**71.6**	**73.0**	**70.9**	2.1	0	842	10	No	N/A	No
A1	R22W	Residential	8	67.9	**70.8**	**72.2**	64.4	7.8	39	4700	20	Yes	$2,661	Yes
A1	R23W	Residential	10	61.6	64.4	65.7	61.5	4.2						
A1	R25W	Residential	1	67.5	**70.5**	**71.7**	63.6	8.1						
A1	R26W	Residential	52	61.7	64.5	65.7	60.6	5.1						
A1	R28W	Residential	3	67.3	**70.2**	**71.4**	63.8	7.6						
A1	R29W	Residential	2	66.9	**69.9**	**71.0**	63.3	7.7						
A1	R30W	Residential	20	67.3	**70.3**	**71.4**	63.6	7.8						
B	R24W	Residential	1	66.5	**69.4**	**70.7**	65.5	5.2	1	690	20	Yes	$39,808	No
C	R21W	Residential	1	61.2	64.1	65.5	62.9	2.6	0	550	20	No	N/A	No
D	R17W	Residential	1	64.1	67.1	68.6	64.2	4.4	0	2060	20	No	N/A	No
D	R18W(2)	Residential	2	61.3	64.2	65.7	61.0	4.7						
E	R12W	Residential	1	56.0	58.8	64.4	60.9	3.5	1	1556	20	Yes	$93,360	No
E	R13W	Residential	1	58.3	61.1	66.9	61.9	5.0						
F	R24E	Residential	1	41.5	44.4	68.4	64.3	4.1	0	626	20	No	N/A	No
F	R25E	Residential	1	41.7	44.6	66.5	63.5	3.0						
G	R19E	Residential	1	40.5	43.4	**69.3**	64.1	5.2	1	710	20	Yes	$40,962	No
H	R17E	Residential	1	40.2	43.1	59.3	57.8	1.5	0	1135	20	No	N/A	No
H	R18E	Residential	1	41.3	44.2	65.3	61.9	3.4						
I	R15E	Residential	1	41.2	44.0	67.9	62.4	5.5	2	2588	20	Yes	$69,946	No
I	R16E	Residential	1	41.4	44.3	66.3	60.7	5.6						
J	R12E	Residential	1	41.7	44.6	65.4	61.8	3.6	0	776	20	No	N/A	No
K	R1E	Residential	1	53.8	57.1	61.5	56.9	4.6	1	2534	20	Yes	$88,395	No
K	R2E	Residential	1	60.7	64.0	**80.0**	80.0	0.0						
K	R3E	Residential	1	54.5	57.8	**70.3**	61.7	8.6						
K	R4E	Residential	1	49.3	52.5	65.1	63.9	1.2						
L	R31W	Residential	1	68.9	**71.6**	**73.0**	65.7	7.3	1	842	20	Yes	$34,603	No
M	R32W	Residential	1	67.3	**69.3**	**69.6**	67.4	2.2	0	230	20	No	N/A	No

Shaded cells represent locations exceeding applicable noise standards. **Bold** values approach or exceed the FHWA Criteria of 70 dBA.

In this project, future noise levels exceeded both the Federal Noise Abatement Criteria and the State Noise Standards at many sensitive noise receptors. Therefore, noise abatement measures are proposed and are included in this analysis. The Highway 14 roadway improvements must comply with both the State of Minnesota Noise Standards and the Federal Noise Abatement Criteria. To do this, all reasonable and feasible noise mitigation measures are planned as a part of the project. Even with these noise mitigation measures, the Minnesota Noise Standards are exceeded at locations south of Highway 14. Therefore, a Noise Standards Exemption Request is required to be submitted to the Commissioners of the MPCA. This document is a means of demonstrating that all reasonably available noise mitigation measures are employed as part of the project.

Air Quality

Draft EIS Section 4.2 – Air Quality describes the air quality analysis completed for the proposed improvements, including an analysis of the likely Mobile Source Air Toxics (MSAT) emission impacts of this project. The project is not located in an area where conformity requirements apply, and the scope of the project does not indicate that air quality impacts will be expected. Therefore, it has been determined that no further air quality analysis is necessary.

Mitigation

No mitigation measures are proposed.

Water Quality and Surface Water Drainage

The existing water quality impacts that occur directly from Highway 14 are associated with maintenance of the roadway surface, deicing during the winter, and storm water runoff. In large part, pollutants from deicing and storm water are transported to vegetated road ditches prior to reaching receiving water bodies. However, in areas where the road is close to a water resource, such as bridges over the Straight River and Dodge Center Creek, there is limited area for treatment and any existing buffers are narrow.

The project will increase the existing impervious surface area which will result in additional storm water runoff and greater discharge rates. The most common contaminants in highway runoff include sediments, nutrients, heavy metals, oil, grease, and deicing chemicals. However, impacts from erosion and sedimentation will be addressed both during and after construction according to the conditions of a National Pollutant Discharge Elimination System Permit (NPDES) Construction Stormwater permit. For a description of these permit requirements see Draft EIS Section 4.2 – Water Quality and Surface Water Drainage section. Since publication of the Draft EIS, further detailed analysis has been conducted and is summarized below.

Based on the preliminary design, the preferred alternative will increase the impervious surface area of Highway 14 by approximately 123 acres. This calculation is important in determining the water quality strategies that have been proposed to ensure compliance with state permit requirements. Both

the Straight River (ID# 07040002-535) and the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek) (ID# 07040004-592) are listed as Impaired Waters by the MPCA for aquatic life based on turbidity. Turbidity is a measurement of the amount of solid particles (e.g., silt) that are suspended in water that result in a loss of clarity or transparency. When constructed, the project's water quality treatment design must conform to the most current requirements (presently, infiltration) as expressed through the NPDES permit.

Existing drainage patterns and features (i.e. topography, hydrographic information, drainage ditches, culverts, etc.) were reviewed at the onset of the water quality and surface water drainage assessment. For purposes of this assessment, the preferred alternative corridor has been divided into 29 sub-drainage areas. These drainage areas range in size and were primarily defined by topography and existing hydrology.

The proposed rural four-lane divided highway design for the preferred alternative will include roadside ditches, as well as a center grassed median between the eastbound and westbound lanes. The strategies best suited for containing and treating the storm water runoff on rural design projects are grassed swales with separating berms and the vegetated filter/infiltration strips and areas. Most of the runoff from the preferred alternative will drain to a grassed median, roadside ditch, or storm water treatment detention ponds.

Grassed swales or vegetated swales are densely vegetated drain ways with slightly sloped bottoms. The role of the vegetation is to reduce flow velocity and provide sediment settling and filtration. Typically, tall rigid grasses with extensive root systems are desirable. The grassed swales can be implemented along the median and along the roadside ditches. Berms, perpendicular to the direction of flow, may be installed to slow the flow velocity and retain the runoff. It is important to note that separating berms cause grass swales to function essentially as detention basins and can virtually retain all of the sediment washed away by storm water runoff. Thus, the grassed swales can simultaneously provide excellent runoff control and storm water treatment. Swales can also provide additional benefits, such as erosion control and pleasant aesthetics.

Storm water detention ponds have also been planned at 14 locations along the corridor. These wet detention ponds will be used as end of the line runoff control and storm water treatment. Wet detention ponds have been strategically placed in order to capture substantial amounts of the roadway runoff for treatment (see Figures A1 through A8 located in Appendix A for proposed pond locations). Since Highway 14 is a rural roadway section, it is not feasible or economical to capture and treat all of the storm water from the roadway in detention ponds. Note these pond sites are based on the preliminary design and specific locations and sizes may be altered if deemed necessary during the final design phase of the project.

Other BMPs, such as sodding, seeding, erosion control mat, biorolls, bioengineering, and rock ditch checks will be used on all disturbed areas of

the project to reduce sediment and pollutant loading to surface waters. Additional BMPs may be suggested by the MPCA and will be determined as part of the permitting process.

New/replacement culverts and ditches associated with the transportation improvements will need to be constructed in order to maintain drainage patterns. If increased capacity is needed for a culvert(s), this could be achieved by larger or multiple culverts, increased grade on culverts, and/or more hydraulically efficient inlets. Any culvert improvements would need to consider stream slope, erosion potential, upstream and downstream conditions, and watercourse capacity.

Mitigation

As part of the final design phase for the preferred alternative, a Storm Water Pollution Prevention Plan (SWPPP), which is required as part of the NPDES Permit, will be prepared that will outline the practices to be used for this project to prevent impacts to the quality of the receiving waters. The SWPPP would be incorporated and made part of the construction documents.

A DNR Public Waters Work Permit is required for any activity affecting the course, current, or cross-section of public waters unless specifically exempted in Minn. Rules Chapter 6115. Based on the preliminary layout, no placement of fill or temporary impacts to public waters is anticipated. Following the completion of the final design, if the project requires the placement of fill material within the channel or temporary impacts, a DNR Public Waters Work Permit will be required.

The preferred alternative will also require a permit from the MPCA that will ensure potential impacts from erosion and sedimentation will not adversely impact water quality. A more detailed discussion of water quality related permit requirements and BMPs was provided in the Water Quality and Surface Water Drainage section of the Draft EIS.

Floodplains and Water Body Modifications

The Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) and associated floodway maps for Dodge and Steele Counties, Minnesota have been used for this analysis.

Highway 14 currently crosses the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek) near the eastern termini of the project and the Straight River near the western termini of the project. The preferred alternative will not encroach on the Dodge Center Creek and Straight River floodplains.

Nature of Encroachments

Existing bridges transversely cross the floodplains at both the Straight River and the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek). Roadway work would minimally affect these bridges as both crossings currently carry four-lane traffic and no roadway embankment work is anticipated that would encroach on floodplains or floodways. The Straight

River bridges are proposed to be replaced in their existing location while the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek) bridge is not proposed to be replaced.

Impact Analysis

Under state law, the floodplain is considered to be the land adjoining lakes and rivers that is covered by the "100-year" or "regional" flood. This flood is considered to be a flood that has a one percent chance of occurring in any given year. The area of the 100-year flood is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment so that the 100-year flood may be carried out without substantial increases in flood heights. The area between the floodway and the boundary of the 100-year flood is termed the floodway fringe. Construction or fill in the floodway fringe should not substantially affect the flood levels because the activity would not obstruct the primary flood flows occurring in the floodway.

The impact analysis is summarized as follows:

1) There would be no interruption or termination of a transportation facility, which is needed for emergency vehicles or provides the only evacuation route for a city or surrounding communities. All roadways would remain above the 100-year flood elevation.

2) No substantial adverse impact on natural and/or beneficial floodplain values should result from this project.

    a) No fisheries impact is anticipated.

    b) The project improvements would not increase flow velocities in the rivers for most flow conditions.

    c) The project would not involve any State or Federal Wild and Scenic River. The project will involve State Canoe and Boating Rivers of the Straight River and the Zumbro River. The Straight River is listed as a canoeing river just south of the project area. The South Branch Middle Fork Zumbro River confluence with the larger Zumbro River is listed as a canoe river at the City of Oronoco in Olmsted County (located northeast of the project area). The preliminary layout of the preferred alternative includes the replacement of the single span highway bridges over the Straight River in their existing location. Slight design modifications to accommodate wider shoulders are planned for the replacement bridges. Best management practices will be utilized to minimize the effects of the proposed improvements.

    d) Surface water bodies include previously mentioned streams, ditches or intermittent runs. Several small open water ponds created for wetland mitigation are located along the highway corridor. There are also numerous seasonally flooded wetland areas. The preferred alternative would have minor impact on several wetlands. These

effects would be minimized by utilizing best management practices for surface water runoff. Impacts to wetlands would be properly mitigated following state and federal regulations (see Wetlands and Water Quality sections of this Final EIS).

e) Threatened and endangered plant and/or animals have been identified in the project area. Impacts on these resources are anticipated to be minimal and are not directly associated with floodplains (see Threatened and Endangered Species section of this Final EIS).

f) Appropriate turf establishment and erosion control measures would be used. Contractors would comply with Mn/DOT specifications regarding erosion control and protection of public waters. As is discussed in the Erosion Section, an erosion control plan and best management practices would be employed. Erosion control measures, temporary and permanent, would apply to the preferred alternative. Measures would include use of temporary seeding, bale ditch checks, silt fences, temporary sedimentation basins, ditch blocks, energy dissipaters and re-vegetation of disturbed areas with native species.

3) No substantial increased risk of flooding would result. No roadway embankment work would encroach on floodplains or floodways. There are no known existing flooding problems or concerns within the project area.

   County and Judicial Ditches and crossings would be maintained both during and following construction of the proposed improvements. Orders for crossing three drainage ditches will be obtained from requisite ditch authorities. During design, these flood prone areas and drainage ways will be examined for any localized flooding problems and corrected to the extent practicable.

4) This project should not result in any incompatible floodplain development. The proposed improvements are consistent with local land use and zoning regulations.

Mitigation

Based on the above floodplain assessment, the preferred alternative is not expected to cause substantial floodplain impacts.

Geology/Groundwater

Impacts to aquifers from construction of the preferred alternative will be negligible due to the confining layers of loam to clay loam overlying the aquifers. According to Minnesota Department of Health (MDH) records, drinking water aquifers in the area are covered by one or more layers of fine-grained material that would likely protect it from any potential source of contamination. Potential minor impacts could occur near areas where streams or other surface waters, such as wetlands, may have connections to

surficial sand and gravel aquifers. It is also anticipated that the preferred alternative will require the abandonment of private wells and impact agricultural drain tile systems as a result of right-of-way acquisitions and relocations. For further information, see Draft EIS Section 4.2 – Geology/Groundwater.

A more detailed consideration of farm drainage systems has been included in preliminary design of the preferred alternative. On February 24, 2009, a special public meeting was held in the City of Claremont to discuss potential farm drainage impacts and to request drain tile information such as surveys and drawings from agricultural landowners. As a result of this meeting and several one-on-one conversations with landowners, drain tile information for a majority of the preferred alternative corridor was obtained and utilized in the preliminary design of the preferred alternative. This information will be further utilized in the final design to define drainage outlets, design capacity of systems, and hydraulic gradients.

Mitigation

Construction BMPs will be used during construction to minimize potential impacts to surface water and ground water.

Farm drainage systems are vitally important to area farmers. The information gathered during the preliminary design phase will be utilized in final design to protect the integrity of each field tile drainage system as much as possible, while still allowing for the proposed highway construction. Special attention will also be given to construction activities to ensure soils characteristics are not compromised through soil compaction.

The abandonment of any wells will be conducted in accordance with Minnesota Department of Health requirements. Continuity of existing farmland drain tile systems will be sustained during and after construction.

Wetlands

A preliminary analysis of wetlands and potential impacts was conducted for the Draft EIS (see Draft EIS Section 4.2 – Wetlands). Since the completion of the Draft EIS and identification of the preferred alternative, a detailed wetland delineation process has been undertaken using the methodology of the Corps of Engineers Wetlands Delineation Manual, 1987, and the Midwest Regional Supplement. This delineation was completed on May 20-21, and June 17, 2009. Wetlands were identified and mapped in the field with the assistance of MNDNR staff. The Routine Onsite Determination Method (RODM) was used for the delineation as most of the areas are small and do not require multiple transects. Field notes, samples, and photographs were taken at representative locations in each basin and transferred to RODM data sheets. The results of the analysis are summarized below, and the delineation methodology, process, and detailed results are described further in the Highway 14 Wetlands Delineation Report, which is available for review at the Mn/DOT District 6 Office in Rochester, Minnesota. A copy of this report

was forwarded to the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service.

The wetland delineation evaluated all areas that met wetland criteria within the proposed right-of-way of the preferred alternative. Areas that are clearly natural wetlands or are within the right-of-way and contain remnant wetland vegetation have been identified as wetlands. Within the project area, particularly along the existing Highway 14 right-of way, the DM&E railroad right-of-way, and the various connecting roadways are many areas of roadside ditch. These roadside ditches often meet wetland criteria, but may have been created to convey road runoff, and may not have been wetland prior to road construction. For the purposes of this environmental review, roadside ditches have been included and quantified as a potential impact. The determination of the jurisdiction of these ditches will be evaluated with the permitting process in place at the time of project construction.

A total of 16 wetlands were identified and mapped within the construction limits of the preferred alignment (see Figures A1 through A8, located in Appendix A). A majority of the wetlands are located within agricultural areas, and often have row crop agriculture up to the edge of the wetland. In some instances, wetlands are being farmed, at least in part. The larger basins tend to be shallow marshes that are a part of a larger drainage system and are too wet to farm. All of the wetlands delineated exhibited some signs of disturbance, mostly through drainage or dominance of invasive vegetation, such as reed canary grass (*Phalaris arundinacea*). Table 17 is a summary of the wetlands delineated, and the area of impact based on the proposed construction limits of the preferred alternative improvements.

Table 17 – Summary of Wetland Characteristics

Basin ID	Cowardin[1] Classification	Circular 39[2] Classification	Eggers and Reed[3]	Description	Area of Impact (acres)	Basin Size[4] (acres)
1	PFO1A	Type 7	Floodplain Forest	Floodplain forest	0.34	71.00[5]
2	PEMB	Type 2	Sedge Meadow	Native-wet prairie	0.03	0.03
3	PEMB	Type 2	Wet Meadow	Reed canary grass ditch	0.05	0.05
4	PEMB	Type 2	Wet Meadow	Reed canary grass ditch	0.01	0.01
5	PEMB	Type 2	Wet Meadow	Reed canary grass meadow	2.37	3.10
6	PEMB	Type 2	Wet Meadow	Reed canary grass meadow	1.34	3.10
7	PEMC	Type 3	Shallow Marsh	Cattail fringe of larger wooded swamp	0.40	6.50
8	PEMC	Type 3	Shallow Marsh	Shallow marsh portion of wooded swamp	0.02	0.10
9	PEMA	Type 1	Seasonally Flooded Basin	Depression in horse pasture	0.31	0.34
10	PEMA	Type 1	Seasonally Flooded Basin	Depression in horse pasture	0.18	0.35
11	PSS1B	Type 6	Shrub-carr	Depression in horse pasture	0.06	0.37

Basin ID	Cowardin[1] Classification	Circular 39[2] Classification	Eggers and Reed[3]	Description	Area of Impact (acres)	Basin Size[4] (acres)
12	PEMB	Type 2	Wet Meadow	Small drainage channels in upland woods	0.09	3.00
13	PEMB	Type 2	Wet Meadow	Reed canary grass meadow	1.18	2.64
14	PUBG	Type 4	Deep Marsh	Excavated pond	0.02	1.58
15	PEMA	Type 1	Seasonally Flooded Basin	Farmed wetland	0.16	0.16
16	PEMB	Type 2	Wet Meadow	Farmed wetland	1.16	2.06
				Total	**7.72 acres**	

[1] *Classification of Wetlands and Deepwater Habitats of the United States.* (Cowardin *et al.*, December 1979).
[2] *Wetlands of the United States, Circular 39.* (Shaw and Fredine, United States Fish and Wildlife Service, 1956).
[3] *Wetland Plants and Plant Communities of Minnesota and Wisconsin* (Eggers and Reed, 1987).
[4] *Estimated using aerial photographs if the wetland extends beyond the area delineated.*
[5] *. Wetland contains channel and riparian areas, which extend linearly beyond the project area, and cannot be quantified. Area present in table is portion of wetland within the immediate project vicinity.*

For the delineated wetlands, the largest wetland type impacted is wet meadow (with 6.12 acres, or 80 percent of the impacts occurring to this type), which is dominated by reed canary grass. Other types are substantially less by area and percentage, but are in some cases higher in quality as they have less invasive species and tend to be larger, less disturbed complexes. A summary of wetland impacts by wetland type is summarized in Table 18.

Table 18 – Summary of Wetland Impacts by Wetland Classification

Wetland Classification	Number of Basins	Total Area of Impact (acres)
Floodplain Forest	1	0.34
Seasonally Flooded Basins	3	0.65
Wet Meadow	7	6.20
Sedge Meadow	1	0.03
Shallow Marsh	2	0.42
Deep Marsh	1	0.02
Scrub Shrub	1	0.06
Total		**7.72 acres**

In addition to the wetlands, a total of 69 roadside ditches were also identified within the construction limits of the preferred alternative. As previously discussed, the ditches are being summarized independently from the other wetlands, as there may be variable jurisdiction when the project is permitted.

The ditches located throughout the project area are either created or modified from existing wetlands to facilitate conveyance of water. These ditches are often saturated, but have water levels that vary substantially depending on precipitation or the water levels in the receiving bodies (usually

larger, regional drainage ditches). Vegetation in these basins is almost exclusively cattails (*Typha* spp.) or reed canary grass (*Phalaris arundinacea*) depending on duration of inundation. This designation also includes portions of the channels dominated by open, flowing water that are components of the larger regional drainage system. Within the project area, a majority of the wet ditches are Type 3 reed canary grass swales, although cattail ditches are also very common. A few sedge meadow areas were observed, but most tended to be within the DM&E railroad right-of-way, and generally not within the project construction limits. A summary of the drainage ditch impacts are presented in Table 19.

Table 19 – Summary of Roadside Ditch Impacts By Habitat Type

Habitat Classifications	Number of Basins	Total Area of Impact (acres)
Reed canary grass ditch	31	4.53
Cattail ditch	19	3.63
	Total	**8.16 acres**

For all the areas delineated, a total of 7.72 acres of wetland, and 8.16 acres of drainage ditch that may be regulated as wetland could potentially be impacted.

The analysis completed as part of the Draft EIS indicated 15.25 to 17.48 acres of wetland impact under Alternative 3 – South Bypass Alignment, which is within the actual impacts identified in this Final EIS. The reasons for the variability in the values include the following:

- Wetland impacts in the Draft EIS were based on NWI mapping with field verification. More accurate delineations of wetland boundaries have been completed in May and June 2009 for the Final EIS.
- The Draft EIS included a conservative estimate using the required right-of-way required for each alternative in order to represent a "worst case" scenario. The right-of-way corridor and construction limits for the preferred alternative have been refined in the Final EIS, and the preferred alternative alignment has been shifted in several places to minimize impacts.
- Although the amount of drainage ditch was greater than estimated, the amount of wetland was actually less, which reduced the total impact areas slightly.

Wetland Jurisdiction

The jurisdiction of all wetlands will be determined during the permitting process under the rules in place at that time. Based on current rules it is anticipated that the following agencies would have jurisdiction over the wetlands in the project area:

The United States Army Corps of Engineers (USACE) regulates all wetlands and ditches, provided they meet the criteria of the 1987 Manual and the subsequent regional supplements. This includes drainage ditches, as there is

no recognition of incidental wetlands. Currently, the USACE has no authority over isolated wetlands. Many of the wetlands in the project area appear to be isolated, but a Jurisdictional Determination will need to be completed to establish which basins are regulated by USACE and which are not.

The Minnesota Wetland Conservation Act (WCA) also regulates wetlands, and is administered by Mn/DOT when impacts occur within its right-of-way. The WCA regulates all wetlands, regardless of isolation. This process recognizes created areas as incidental, which would include many of the drainage ditches.

The Minnesota Pollution Control Agency (MPCA) also regulates wetlands through two primary mechanisms. The first is through review of the project with regards to compliance with Section 401 of the Clean Water Act. This project is anticipated to require an Individual Permit from the USACE, which also requires 401 water quality certification from the MPCA. The MPCA also regulates wetland through Minnesota Rules 7050.0186, which attempts to prevent degradation of wetlands and waters, requires sequencing to avoid and minimize impacts, and provide compensatory mitigation if impacts cannot be avoided.

The Minnesota Department of Natural Resources (MNDNR) regulates Public Waters, and is a participant if projects occur within 1,000 feet of a Public Water. The proposed project includes the crossing of the Straight River on the west side of the project, and the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek) on the east end of the project. The preferred alternative includes improvements that will also pass within 300 feet of Dodge Center Creek in order to maintain connectivity of several local roadways. A DNR Public Waters Work Permit is required for any activity affecting the course, current, or cross-section of public waters unless specifically exempted in Minn. Rules Chapter 6115. Based on the preliminary layout, no placement of fill or temporary impacts to public waters is anticipated. Following the completion of the final design, if the project requires the placement of fill material within the channel or temporary impacts, a DNR Public Waters Work Permit will be required.

Sequencing

Wetland impact sequencing includes three steps: impact avoidance, impact minimization, and impact compensation/mitigation. Each wetland was evaluated individually for opportunities to avoid or minimize impacts.

Wetland impacts were avoided where possible, however reasons for not avoiding impacts to a specific wetland included one or more of the following:

- Need to provide safe roadway geometrics;
- Alignment cannot be shifted to the north because of railroad corridor;
- Shifting the alignment would isolate the wetland in the median; and
- Shifting the alignment would create impacts to other wetlands or to other social, environmental, or natural resources.

If wetland avoidance was not possible, the next step in the sequencing process, minimization was considered. Several minimization measures were considered in the design of the preliminary layout for the preferred alternative including:

- Use of the existing roadway alignments wherever possible. By using an existing roadway alignment (state highway, county road, or township road), only the new width of the roadway causes impacts to wetlands.
- Increase in ditch slope. Increasing the slope of the ditch adjacent to the outside lanes would reduce the footprint of the roadway. The typical rural cross section calls for 1:6 (vertical:horizontal) slopes. Thus, either a 1:5 or 1:4 slope with additional unpaved shoulder width are acceptable strategies to minimize wetland impacts. Steeper slopes are not acceptable because of the hazard presented to drivers running off the road or hitting guard rail. Also, the slope near culverts will be gentle so as to cover the culvert.
- Reduction in the elevation of the road profile. Lowering the road profile can reduce the footprint of the roadway. This strategy has limited application because the roadway should be at least five feet above the water level to prevent water damage to the roadbed, and in some areas, the roadway should be at least four feet above the adjacent ground to allow snow to blow off the road to decrease the hazard posed by drifting snow. Also, there must be sufficient cover over culverts.
- Construction of bridges. Bridging over wetlands is applicable only where there are exceptional wetlands because of the cost of bridging and the reduction in safety. There are no such wetlands impacted by the Highway 14 project, so construction of bridges is not an appropriate minimization strategy.

In order to minimize water quality impacts to wetlands, water quality treatment best management practices (BMPs) have been designed and incorporated into the preliminary layout (see Water Quality section in this Final EIS).

In general, the minimization strategies listed above can be difficult to implement where there are small wetlands not close to one another.

Mitigation

A Combined Wetland Permit Application and Replacement Plan will be prepared and submitted for the preferred alternative prior to construction. A Pre-Section 404 Permit Application meeting was held in July 2007. The purpose of the meeting was to initiate early coordination between the USACE and Mn/DOT on the Highway 14 Improvement Project. Jurisdiction Determination procedures were discussed and will be further considered as the project progresses into more detailed design and eventually permitting. Upon completion of the environmental review process, with particular

emphasis to wetland impacts, it shall be requested that the USACE provide a determination supporting that the least environmentally damaging practical alternative has been selected.

Replacement of lost wetlands will be in accordance with state and federal regulatory requirements at the time of project construction. Replacement will occur prior to or concurrent with the wetland impacts, and will include all efforts to provide “in-kind”, “in place” and “in-advance” wetland replacement. Furthermore, efforts will be made to replace all lost functions and values. This will likely require the use of wetland banking, which is currently the preferred method of mitigation for both the USACE and the WCA.

Mn/DOT’s existing wetland bank system may provide eligible credit, to date there are existing accounts and wetland credits held by Mn/DOT within the Bank Service Area and assuming the potentially long term of the project schedule, additional bank sites could be developed over the next several years to accommodate the project needs. The specific method(s) for mitigating impacts to wetlands will be determined during the final design phase and permitting of the project. The Highway 14 Wetlands Delineation Report will be reviewed and revised as needed prior to project construction.

No Practicable Alternative Finding

Based on the findings of the Wetland Delineation Report and summary above, it has been determined that there are no practicable alternatives to the proposed action, and the proposed action includes all practicable measures to minimize harm to wetlands.

Vegetation

The present day vegetation within and adjacent to the preferred alternative corridor is dominated by agricultural row crops and hay fields. Areas of Native vegetation can be found in limited areas within the study area. Small areas of remnant prairie can be found adjacent to the DM&E railroad corridor and along a small number of county/township road ditches. Bottomland hardwood forest is found near the Straight River and Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek) riparian corridors.

The remnant prairie areas were identified and mapped in the field with the assistance of MNDNR staff. The boundaries of these areas were utilized in avoidance and minimization measures as part of the preliminary design of the preferred alternative. However, based on the preliminary construction limits of the preferred alternative, there are five remnant prairie areas that will be encountered, resulting in approximately 0.5 acres of direct impact.

The preferred alternative will impact a small number of woodland areas (larger tracts of forestlands and densely vegetated farmsteads/building sites). There is approximately 23 acres of woodlands within the right-of-way of the preferred alternative. These impacts primarily occur along the fringe of these areas. For safety purposes, all mature vegetation within the highway clear zone will be removed.

Mitigation

Impacts to vegetation have been avoided and minimized in the preliminary design and will be further considered in the final design phase. Construction of the preferred alternative is not yet programmed and will not likely be constructed for several years. Reevaluation of prairie remnant sites prior to the completion of the final design and start of construction should happen. Efforts to limit right-of-way acquisition and construction activities within these natural vegetation areas will be made including appropriately locating staging areas needed during the construction phase and through the use of protective fencing for areas within the right-of-way that occur outside the limits of construction. A substantial amount of right-of-way will be available with the preferred alternative that may be appropriate for prairie vegetation establishment. Mn/DOT specifications will be modified to require use of local ecotypes of native grasses and forbes in reestablishing vegetation along this project. Where existing prairie remnants are impacted, topsoil will be salvaged for re-application to the impacted area so that the native seed bank and soil microbes can be re-established.

Mn/DOT's integrated roadside management planning guidelines will assist in minimizing the potential spread of invasive plant species through reestablishment of native plant communities in all disturbed areas as well as routine maintenance of the state highway right-of-way corridor.

Fish and Wildlife

The preferred alternative will impact wetlands, likely impacting the associated wildlife habitats.

The preferred alternative will also pass through the Claremont Game Refuge, which includes habitat for many birds and mammal species. Potential impacts may include higher than average deer collision rates. As identified in Table 6 of the Draft EIS, there were 37 reported crashes involving animals on this segment of Highway 14 during the five-year crash history review period (Jan. 2001 – Dec. 2005).

Under the provisions of the Migratory Bird Treaty Act, Mn/DOT has established a policy and process for mitigating impacts to nesting swallow concentrations on bridges. No existing impacts to swallow colonies are anticipated.

Existing effective fish passage at the Straight River and the Lower Branch of the Middle Fork Zumbro River (Dodge Center Creek) will be maintained.

Mitigation

Impacts to wetlands and vegetation have been discussed and proposed mitigation is described in each respective section.

Since the preferred alternative remains adjacent to the southern edge of the DM&E railroad corridor and fish passage will remain as it currently exists, impacts to fish and wildlife will be minimal.

Deer-car collisions are most likely to occur during wintering season in the area of the Claremont Game Refuge. Mitigation for deer-car collisions will be further discussed with the MNDNR and considered as part of the final design. Mitigation options may include planting non-preferred vegetation in the right-of-way, adding more frequent deer crossing signs, and installing wildlife passages with fencing and periodic one-way gates or jump ramps along the right-of-way.

Mn/DOT will adhere to the provisions of the Migratory Bird Treaty Act.

State/Federal Threatened and Endangered Species

The Draft EIS included an assessment of threatened and endangered species (see Draft EIS Section 4.2 – State/Federal Threatened and Endangered Species).

Because the proposed action is not yet programmed and will not be constructed for several years and since this information is subject to change, Mn/DOT acting as the non-federal representative for the Federal Highway Administration has stated that any determination of effect made at this time would be premature and therefore recommends that the action be reevaluated and consultation reinitiated within three years prior to the start of construction. The response letter from Mn/DOT's Office of Environmental Services (OES) is included in Appendix D of the Draft EIS. This letter also states that the project is within the distribution range of the dwarf trout lily (*Erythronium propullans*) and the prairie bush clover (*Lespedeza leptostachya*), both federally-listed species. No occurrence of candidate federal species or listed critical habitat has been identified within the proposed right-of-way limits for the preferred alternative.

Correspondences with MNDNR staff have occurred in the early planning and design phases of the project. Several state-listed threatened and special concern mussel species are found in the Straight River. No impacts to the riverbed are anticipated.

Wood turtles (*Clemmys insculpta*), a state-listed threatened species, have been sighted in the vicinity of the Lower Branch of the Middle Fork of the Zumbro River (Dodge Center Creek). The preferred alternative will not impact the bridges over the river or floodplain habitat. The MNDNR has recommended that effective erosion and sediment control practices be implemented and maintained in the area to avoid potential impacts.

Several mesic prairie remnants have been identified within the project area. These sites have been field verified and delineated. To the extent practical, the preliminary design of the preferred alternative minimized impacts to these locations. However, upon further review of the preferred alternative, it has been determined that the preferred alternative will impact 5 locations where prairie remnants currently exist, resulting in approximately 0.5 acres of impact.

Mitigation

If state listed species are encountered within the construction limits or staging areas, the MNDNR will be consulted for plant salvage possibilities. Mn/DOT and the MNDNR have a well established and reputable plant salvage program to implement when there are unavoidable impacts to native plants.

Coordination between the MNDNR and Mn/DOT will continue through the project development process, which may result in additional measures (e.g. construction staging, fencing prairie areas, etc.) to minimize effects.

Prime and Statewide Important Farmland

An extensive study of the potential effects of the proposed improvements to farmland in the project area was completed for the Draft EIS (see Draft EIS Section 4.2 – Prime and Statewide Important Farmland). As indicated in the Draft EIS, the preferred alternative (Alternative 3 with Claremont South Bypass Option 4) will convert nearly 600 acres of land classified as prime, unique, and/or of statewide importance to a transportation use. This calculation includes all areas (i.e. wetlands, farmsteads, public rights of way, and agricultural fields) that have underlying soil types that are classified in the soil surveys for each county that have been classified as prime, unique, and/or of statewide importance. Based on data contained in the Farmland Conversion Impact Rating Form (CPA 106), the amount of farmland converted in Dodge County and Steele County by the preferred alternative will be approximately 0.1 percent of the total farmland in the counties. The CPA 106 Form is included in Appendix E of the Draft EIS along with correspondence letters to the County Natural Resources Conservation Service office.

The preferred alternative will also have direct and indirect impacts on farming operations. There are a number of farms that are within the proposed right-of-way limits that would lose cultivated land and buildings that are currently in use. Most of the farmland impacts created by the preferred alternative are the result of acquisition of strips of right-of-way from those farms located along either existing Highway 14 or the DM&E rail line.

Indirect impacts will occur in areas where farm parcels are triangulated or severed by the proposed highway corridor and farming operations become less efficient and cost-effective. It is estimated that the preferred alternative will cause approximately twelve farm severances/triangulation. These impacts are estimates based on the preliminary layout. These impacts are primarily associated with the Steele County Road 43 interchange, Claremont South Bypass and Dodge County Road 3 interchange, and Highway 56/Dodge County Road 5 interchange.

A controlled access highway will also result in fewer access points than currently exist making farming operations more difficult in some areas. It is proposed that grade-separated crossings along the project corridor will occur at the following locations:

- Steele County Road 45

- Highway 218
- Steele County Road 43
- Steele County Road 16
- Dodge County Road 1
- Dodge County Road 3
- Highway 56/Dodge County Road 5

The identification of Alternative 3 as the preferred alternative will allow the existing Highway 14 alignment to be utilized for farm operations and movement of farm machinery.

As discussed in the Geology/Groundwater section, a more detailed consideration of farm drainage systems has been included in the preliminary design of the preferred alternative. Individual landowners/operators were contacted to discuss potential farm drainage impacts on all agricultural lands affected by the preferred alternative. Drainage information such as locations of existing culverts, tile lines, and intakes was requested and incorporated into the preliminary design. This information was used to establish a roadway drainage system that will have minimal effects on agricultural properties.

Mitigation

Without compromising the design of the preferred alternative, all practical measures to minimize harm to prime, unique, and/or statewide important farmlands and overall farm operations have been applied to the preliminary design. Furthermore, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, will be followed with regards to farmland acquisition and relocation of farmsteads.

Mn/DOT is committed to reestablishing effective field tile drainage systems. Potential impacts to individual properties will be determined on a case-by-case basis as part of the final design and right-of-way acquisition process.

Visual Quality

As described in Section 4.2 – Visual Quality in the Draft EIS, the construction of the preferred alternative will create impacts to visual quality. The preferred alternative will have an effect on the existing visual scene and resources for both travelers and neighbors. The proposed highway improvements will require additional pavement and clearing of some natural areas. The south bypass alignment of the preferred alternative will also introduce a highway to a previously agricultural area.

Mitigation

No mitigation is required for visual impacts. During the final design phase, a corridor landscaping plan will be prepared. Minimizing visual impacts from tree removal and/or creating irregular edges in the tree line will be considered.

Indirect Impacts

See Draft EIS Section 4.3 for a complete discussion of Indirect Impacts. Potential short-term and long-term indirect impacts resulting from the preferred alternative include:

- Increased travel time effects for some area residents and business patrons occurring. This segment of Highway 14 will become a controlled access freeway and will require additional travel time to/from the proposed interchange locations along the proposed freeway section of highway.
- Potential for land use changes, especially on land surrounding new interchange locations.

Each of these potential indirect impacts is further discussed below.

Increased Travel Time

With the exception of the highway corridor itself, travel times will potentially increase for area residents, farm operators, and business patrons that will no longer have direct highway access. They will be required to travel longer distances to the points of highway access and/or overpasses. Additional travel time and expenses associated with access closures are likely to be offset by the benefits of improved safety over time provided by a controlled access highway corridor (freeway section).

Land Use Changes

Future land use in the project area is determined by many factors, including access to the transportation system, the availability of municipal services (sewer and water), environmental amenities, and economic conditions. Construction of a new or improved highway can create conditions that can aid in the change of development patterns. Highway construction by itself does not cause new development if there are not market forces that support new development and changes in land use. In order for potential land use changes to occur, the development plans have to be consistent with local land use and zoning regulations.

Most new commercial development is expected within the quadrants of the planned interchange locations of the preferred alternative. The desire to occupy the site may precede the ability to extend orderly municipal services to the site. This may result in longer utility lines until contiguous development can “catch up” to the property desiring services. The desire to occupy these locations can also artificially raise land prices and may affect property values of undeveloped adjoining parcels. Potential development at interchange areas will be regulated by City and/or County zoning regulations. Most of the proposed interchange areas are currently zoned for agriculture, so local zoning/comprehensive plan changes would need to be enacted for future development to occur. The timeframe of project construction and City/County zoning regulations will determine if, when and where future development may occur.

Mitigation

No mitigation has been identified for travel time change indirect impacts. Given the existing regulatory framework, where local governments control land use planning, zoning and other development regulatory activities, indirect impacts of the project are expected to be minimal. Potential indirect land use impacts may be avoided and/or minimized through land use controls and roadway access restrictions.

Cumulative Impacts

See Draft EIS Section 4.2 – Cumulative Impacts for a complete discussion of potential cumulative effects resulting from the incremental effects of the Highway 14 Improvement Project along with all past, present, and reasonably foreseeable future projects within the study area vicinity. Cumulative impacts are defined by the CEQ as the following:

> "Impacts on the environment that result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." (40 CFR 158.7)

The proposed project spans both Steele and Dodge Counties and is located within the Cannon River and Zumbro River watersheds. Within Minnesota, the Cannon and Zumbro River watersheds comprise approximately half of the Lower Mississippi River watershed. Based on data provided by the Minnesota Department of Natural Resources, this agriculturally intensive watershed has lost more than 97 percent of the presettlement wetlands. The remaining wetlands tend to be farmed, drained, or highly modified by changes in surrounding land use or alteration of hydrology. Similarly, this conversion of land to agriculture has resulted in a loss of more than 99 percent of the native vegetation present prior to settlement. Small areas of native prairie remnants remain, but are small, isolated, and not sustainable without protection and management.

Immediately west of the project area, Highway 14 is being reconstructed on a new alignment extending west from the current Interstate-35/Highway 14 interchange in the City of Owatonna to Waseca. The transportation improvements completed both state and federal environmental reviews that indicated the project will result in direct impacts to the built environment (homes, businesses, and historic structures/properties) and the natural environment (wetlands, vegetation, water quality). This four-lane freeway section west of Interstate-35 will enhance the mobility between Mankato and Rochester and improve travel safety along this segment of Highway 14.

The Dakota, Minnesota and Eastern (DM&E) Railroad has undergone environmental review to construct/reconstruct new and existing rail line to reach the coal mines of Wyoming's Powder River Basin. Within the Highway 14 study area, the DM&E project will primarily involve reconstruction of the existing tracks and the potential of a rail siding track west of Claremont. Therefore, impacts within the Highway 14 study area are anticipated to be

associated with the speed and number of trains traveling along the rail line. Minor impacts to the natural environment may occur as a result of reconstructing the existing tracks and rail siding track.

Local economic development within the project area, such as the Al-Corn Clean Fuels facility in Claremont, is anticipated to occur within the project area. A mix of commercial and residential development within the communities of Owatonna, Claremont, and Dodge Center will likely occur over time. The submitted comment letter from the Environmental Protection Agency encourages the cities in the project area to follow the examples of other progressive cities and use smart growth techniques and innovative best management practices for stormwater and building projects (see Final EIS Section 8.3 – Agency Comments and Responses for additional information).

Conclusion

Potential cumulative impacts exist in issue areas related to land consumption, land development, wetlands, water quality, farmlands, and vegetation/wildlife habitat. These potential impacts are typically considered through local and county comprehensive planning efforts. These cumulative impacts can be best avoided and/or minimized through land use controls and roadway access restrictions. Furthermore, local and state resource agencies such as the MNDNR, MPCA, Board of Water and Soil Resources, Soil and Water Conservation District, and others can work with local jurisdictions to develop resource preservation plans and land use standards that focus on preserving natural and environmental resources. Local development controls could greatly assist in protecting or even enhancing sensitive resources in the study area, if local units of government are willing to implement protective actions and enforce strong land use regulations.

The Highway 14 Improvement Project along with the cumulative effects from past, present, and reasonably foreseeable projects is not anticipated to result in substantial impacts to any one or combination of resources. This determination has been made in the context of the existing regulatory framework and the mitigation activities proposed for project impacts, and with respect to:

- Simultaneous land use planning and local government regulatory activities and implementation of BMPs
- The incremental impact on the built environment (homes/businesses, historic structures, etc.)
- The natural environment (wetlands, farmlands, water quality, etc.)

4.3 WHAT ARE THE CONSTRUCTION IMPACTS?

Precautions will be taken to limit impacts connected with highway and interchange construction activities. Potential environmental effects associated with construction can include traffic congestion, traffic detours, economic (business access), noise, water quality and soil erosion, borrow and excess materials, utility disruption, and farmland impacts. The potential impacts

along with applicable mitigation measures for each of these areas are discussed below.

Traffic Congestion

Construction of the project is expected to take at least two construction seasons to complete, cause traffic delays, cause travel difficulty to adjacent developments, and increase congestion within the project area. A construction staging plan will be developed during the final design phase of the project that will further assess potential traffic congestion impacts associated with construction. The staging plan will attempt to address the need for property access, while minimizing the total length of construction time.

Traffic Detours

A construction staging plan will be completed during the final design stage of the project, identifying potential detours. This plan will attempt to minimize disruptions to traffic patterns while maximizing directness of detoured routes. This would minimize short-term impacts on emergency services (police, fire, and rescue) and transit services throughout the project area.

Economic (Business Access)

The proposed project is expected to generate both direct construction jobs and indirect jobs to support construction related activities. The exact number of jobs cannot be determined at this time. The Federal Highway Administration recently calculated that for every million dollars spent on highway and bridge construction, approximately 27 jobs could be supported throughout the economy.

The preferred alternative will prohibit direct access to properties along the corridor. However, alternative access is to be provided by secondary streets. Existing businesses within the project area may experience negative short-term impacts during construction due to traffic disturbances/detours. The preferred alternative will limit potential adverse economic impacts since a large portion of the improvements will be constructed on a new alignment. As part of the construction staging plan, efforts will be made to ensure that traffic movements and access to businesses are maintained.

Construction Noise

The construction activities associated with implementation of the proposed project will result in increased noise levels relative to existing conditions. Noise levels due to construction activities in the project area will vary depending on the types of equipment used, the location of the equipment, and the operating mode. During a typical work cycle, construction equipment may be idling, preparing to perform tasks, or operating under a full load. Equipment may be congregated in a specific location or spread out over a larger area. Some construction could potentially occur in close proximity to existing noise-sensitive land uses. Adverse impacts resulting from construction noise are expected to be localized and temporary. All

construction equipment will be properly equipped to minimize potential construction noise impacts.

Table 20 shows peak noise levels monitored at 50 feet from various types of construction equipment. This equipment is primarily associated with site grading/site preparation, which is generally the roadway construction phase associated with the greatest noise levels.

Table 20 – Typical Construction Equipment Noise Levels at 50 feet

Equipment Type	Manufacturers Sampled	Number of Models in Sample	Peak Noise Level (dBA)	
			Range	Average
Backhoes	5	6	74-92	83
Front Loaders	5	30	75-96	85
Dozers	8	41	65-95	85
Graders	3	15	72-92	84
Scrapers	2	27	76-98	87
Pile Drivers	N/A	N/A	95-105	101

Source: US EPA and FHWA

Elevated noise levels are, to a degree, unavoidable for this type of project. Mn/DOT will require that construction equipment be properly muffled and in proper working order. While Mn/DOT and its contractor(s) are exempt from local noise ordinances, it is the practice to require contractor(s) to comply with applicable noise restrictions and ordinances to the extent reasonable. Advanced notice will be provided to affected communities of any planned abnormally loud construction activities. Night construction may sometimes be required to minimize traffic impacts and to improve safety, but construction will be limited to daytime hours as much as possible. Construction is expected to last at least two construction seasons. Any proposed noise barriers will be built as early as construction staging allows.

Any associated high-impact equipment noise, such as pile driving, pavement sawing, or jack hammering, will be unavoidable with construction of the proposed project. Pile-driving noise is associated with any bridge construction and sheet piling necessary for retaining wall construction. While pile-driving equipment results in the highest peak noise level, as shown in Table 20, it is limited in duration to the activities noted above (e.g., bridge construction). The use of pile drivers will be prohibited during nighttime hours.

Water Quality and Soil Erosion

The potential for soil erosion and impacts on water quality are greatest at the time a project requires the removal of vegetation and topsoil for initial clearing, grubbing, and grading activities. Areas adjacent to water resources have the highest potential for adverse impacts. Erosion control measures as suggested by the MPCA will be installed to minimize potential soil erosion impacts from construction activities. These practices may include, but are not limited to, the following, sedimentation basins, silt control devices (silt fences, hay bails), slope drains, and rapid revegetation of exposed construction areas. As part of the final design of the preferred alternative an

erosion control plan, also known as a Storm Water Pollution Prevention Plan (SWPPP), will be prepared and submitted as part of the NPDES permit.

Borrow or Excess Material

The selection of borrow material for the construction of the proposed improvements will be the responsibility of the construction contractor. Existing gravel/borrow sites, in some instances, are identified in the contract special provisions. Due to the cost of hauling aggregate resources, it is assumed that the potential area of effect would be within close proximity of the corridor. The haul distance could be shorter or longer because it is highly dependent upon the number of trucks being used by the contractor.

Mn/DOT has no authority over land use outside the state's right-of-way. Such matters, including gravel mining, generally fall under the jurisdiction of local units of government as part of land use ordinances. The State of Minnesota has designated local units of government as the RGU for environmental review and analysis of gravel mining operations. Any new sites would be subject to environmental reviews under Minnesota Rule Chapter 4410.4300, Subp. 12 and will require an archaeological survey of the site. At the time of construction, Mn/DOT will be notifying the Planning and Zoning Department of both Dodge County and Steele County informing them of the potential gravel needs for the proposed action. The extraction of gravel resources could affect sensitive environmental resources in the area. Both Dodge County and Steele County have existing land use regulations that ensure appropriate environmental reviews occur for any gravel mining requests.

The disposal of excess material will be conducted in accordance with Mn/DOT specifications, environmental regulations, and according to a project disposal plan that will be prepared by the Contractor and approved by Mn/DOT.

Utility Disruption

Construction activities may result in temporary impacts to local utilities. Coordination and cooperation with the local service providers has been and will continue to be maintained throughout the project development process.

Farmland Impacts

Within the study area, construction activities may temporarily disrupt farm operations and/or farm businesses such as planting, growing, and harvesting of crops. Temporary impacts could also result from loss of productivity of croplands directly adjacent to construction activities or loss of customers to a farm-related business during construction of the highway improvements.

Temporary farm-related impacts may include soil compaction from construction equipment, removal and replacement of drain tile, and the removal of crops and topsoil for staging areas and construction. Some loss in yield will occur from soil compaction in these areas or from loss of drain tile efficiencies. Soil compaction impacts are expected to last no more than one to two years following completion of construction and field drain tile systems will be replaced or restored to pre-construction effectiveness. These impacts

are considered minor relative to the area of cropland affected when compared to the permanent loss of cropland from new right-of-way.

Relationship Between Local Short-Term Uses of Man's Environment and the Maintenance and Enhancement of Long-Term Productivity

All highway projects require the investment or commitment of some portion of resources found in the existing environment. Short-term refers to the immediate consequences of the project whereas long-term relates to its direct or secondary effects on future generations.

Potential Adverse Use

Temporary Reduction of Energy and Material Resources

The materials consumed in the construction of the proposed improvements will be unavailable for other uses. These include the construction of other non-highway related facilities. The energy consumed in the construction, maintenance, and operation of the facility is slightly higher than the energy consumed by the No-Build Alternative (in the short-term).

Temporary Loss of Vegetation

In addition to permanent vegetation loss as a result of an expanded highway, construction activities will result in additional short-term losses of vegetation adjacent to the roadway improvements. If necessary, Mn/DOT and MNDNR staff will consider and coordinate plant salvage of important or rare native vegetation that could be affected by the preferred alternative. Revegetation design will be coordinated with visual quality, erosion control, and shoreline and embankment stabilization components of the project to ensure minimal impacts as a result of temporary vegetation loss.

Temporary Loss of Wetlands

The preferred alternative will directly impact existing wetlands. Due to the scattered distribution of wetlands, the impact on wetlands cannot be completely avoided. See Final EIS Section 4.2 Wetlands for a discussion of avoidance and minimization efforts as well as compensatory mitigation opportunities associated with the preferred alternative.

Temporary Impacts on Water Resources

The preferred alternative has the potential to create temporary impacts on water resources due to the close proximity of drainage ditches and wetlands. Every practical effort will be made to minimize impacts on water resources.

Short-Term Economic Impacts

The construction of the expanded highway will require the acquisition of property and will remove this land from the tax rolls resulting in some short-term loss of property tax revenues. This short-term loss is anticipated to be offset due to the increased value of land served by the new highway.

Also, the preferred alternative requires a number of relocations. Depending on the availability and location of replacement housing and farms, such

acquisitions could affect the tax base for local units of government through a short-term loss in tax revenues. Short-term construction detours may require that typical business relationships be temporarily altered. This may include short-term changes in the conduct of business and trade activities until the highway improvements are fully integrated.

Inconveniences from Construction

Construction will cause minor traffic delays and short-term inconveniences for motorists in the area. Construction detours and higher levels of congestion may result due to construction activities.

Significant Capital Investment

Financial commitments to the project include acquisition, relocation, and construction costs. These public dollars will not be available for other uses. In addition, the land converted to highway use represents a reduction in tax base. These costs are to be recovered through more efficient travel and reduced user costs and an increase in the overall tax base due to the improved accessibility and mobility within the project area and region.

Long-Term Gains in Productivity

Improved Mobility and Accessibility

Due to the expanded capacity of the highway, travel times within and through the project area will be improved.

Reduction in Travel Time and Cost of Travel

A four-lane highway has the ability to accommodate high volumes of traffic. The presence of free flowing traffic will reduce motorist travel times and fuel consumption, which will reduce the overall cost of travel.

Economic Benefit

The economic advantage lies in the long-term efficiencies that an improved transportation system will provide. These efficiencies include travel time savings, increased safety, business expansion opportunities, and increased tourism. The preferred alternative has some degree of beneficial economic impacts. The travel time savings will be a benefit to trucking companies, shippers, salespeople, tourists, and to commuters going to and from work. The travel time saved by shippers and salespeople will result in reduced costs for businesses, making them more competitive in the marketplace.

Reduction of Crashes

The construction of a rural four-lane divided (grass center median), full access controlled freeway (interchanges) will improve safety for motorists using the highway and will reduce the severity of crashes (i.e., head-on and side-swipe collisions).

Improvements in Surface Water Drainage

Within the project study area, there are currently very few storm water management techniques being practiced. The proposed highway improvements will incorporate storm water treatment facilities that will collect and treat highway runoff prior to discharging to receiving water bodies.

Irreversible and Irretrievable Commitment of Resources

Land Consumption

The preferred alternative will require the acquisition of undeveloped and developed land for the purpose of roadway construction. Within the foreseeable future, this commitment of property to roadway use is considered irreversible and irretrievable as long as the facility continues to serve the public good. However, if a greater need arises for use of the land or if the highway facility is no longer needed, the land could be converted to another use. At present, there is no reason to believe such a conversion would ever be necessary or desirable.

Social and Cultural Resources

The displacement and relocation of residences and other resources (including historic properties) of the built environment (public and private) are considered to be irreversible and irretrievable. The potential number of relocations, including historic properties, for the preferred alternative was based on structures (historic property boundaries) that fall within the proposed right-of-way. Avoidance measures will be further considered during the final design phase of the preferred alternative that may reduce the number of acquisitions or impacts. These avoidance measures may include minor alignment shifts of the preferred alternative or new frontage roads or extensions of existing or proposed frontage roads.

Construction Materials

The project will result in the commitment of such materials as steel, cement, aggregate, and bituminous. These resources are largely irretrievable except for those items that have some salvage value and can be recycled. A benefit-cost analysis was completed for the preferred alternative and was presented in the Benefit-Cost Analysis section of the Draft EIS (see Section 4.1). Part of the analysis considered the cost of construction materials as well as the value of material that could be salvaged sometime in the future. Therefore, all construction materials needed for the preferred alternative are not considered to be fully irretrievable resources.

Financial Resources

The improvements will require a considerable amount of federal and state financial commitment. The total cost for the preferred alternative is estimated to be $151.2 million. While these public funds are not directly retrievable, the investment will enhance the safety of the users of Highway 14, the cost of travel along the roadway, and the economic vitality of the region.

Natural Resources

The proposed improvements may require the commitment of natural resources including the loss of vegetation, wetland functions and values, and other wildlife habitat. The commitment of these resources may in part be irreversible and irretrievable. Avoidance and minimization measures will be incorporated into the final design of the preferred alternative. Mitigation measures will be employed in an attempt to counter all remaining impacts.

5.0 WHAT PERMITS AND APPROVALS ARE REQUIRED FOR THE PROJECT?

It is anticipated that federal, state, and other local permits/approvals/ concurrence may be required for the proposed action. The following permits/approvals/concurrence will likely be required prior to construction of the proposed action:

- Adequacy Determination from Mn/DOT
- Record of Decision from FHWA
- Section 404 Permit from the United States Army Corps of Engineers (USACE)
- Section 401 Water Quality Certification from Minnesota Pollution Control Agency (MPCA)
- National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit from the MPCA
- Noise Exemption from the MPCA
- Minnesota Wetland Conservation Act (WCA) from Mn/DOT
- Municipal Approval from the City of Claremont and the City of Owatonna
- Public Waters Work Permit from the Minnesota Department of Natural Resources (MNDNR)
- Orders for crossing three drainage ditches will be obtained from requisite ditch authorities

6.0 WHO RECEIVED COPIES OF THE FINAL EIS/FINAL SECTION 4(F) EVALUATION?

6.1 FEDERAL AGENCIES

- U.S. Environmental Protection Agency
- U.S. Fish & Wildlife Service
- U.S. Army Corps of Engineers
- Natural Resources Conservation Service
- U.S. Department of Interior

6.2 STATE AGENCIES/ORGANIZATIONS

- Environmental Quality Board
- Board of Water & Soil Resources
- Minnesota Department of Public Service
- Minnesota Department of Commerce
- Minnesota State Historic Preservation Office
- Minnesota Department of Natural Resources
- Legislative Reference Library
- Minnesota Department of Health
- Minnesota Department of Agriculture
- Minnesota Pollution Control Agency

6.3 LOCAL AGENCIES/ORGANIZATIONS

- City of Dodge Center
- City of Claremont
- City of Owatonna
- Triton School District #2125
- Owatonna School District #761
- Dodge County
- Steele County
- Dodge County Soil and Water Conservation District
- Steele County Soil and Water Conservation District
- Wasioja Township
- Claremont Township
- Havana Township
- Owatonna Township

6.4 OTHER

- Rochester Public Library
- Owatonna Public Library
- Dodge Center Library
- Highway 14 Partnership

7.0 WHAT TYPE OF PROJECT COORDINATION AND PUBLIC INVOLVEMENT HAS OCCURRED SINCE THE DRAFT EIS?

Mn/DOT is committed to public involvement/outreach at all levels in decision-making related to the Highway 14 Improvement Project. Mn/DOT has engaged community organizations, area property owners, business owners, residents, and local, county, regional, and state agencies in the development of the project. See Draft EIS Section 7.0 for a description of activities that took place prior to its publication. Since publication of the Draft EIS, public involvement activities have included:

- Draft EIS Public Hearings
- Project Advisory Committee (PAC) Meetings
- City Council and County Board Workshops
- Public Open House Meeting
- Project Newsletters
- Project Website Updates

Informational and coordination meetings have also been held with representatives from local, state, and federal agencies with approval and/or permit authority to discuss appropriate analysis methodology for different resource areas.

7.1 PROJECT ADVISORY COMMITTEE (PAC)

The PAC was formed to establish a communication link with the affected communities, organizations, and agencies. The committee represents local units of government (cities, counties, and townships) to communicate their concerns to the PAC through their representative to ensure that their community values/interests are expressed. To date, the PAC has met 13 times. The PAC comprises representatives from each of the following groups.

- City of Dodge Center
- City of Claremont
- City of Owatonna
- Dodge County
- Steele County
- Wasioja Township
- Claremont Township
- Havana Township
- Owatonna Township
- Minnesota Legislative Representatives

7.2 COMMUNITY MEETINGS

Throughout the project development process city, township, and county meetings have been held along the corridor that were aimed at gaining a better understanding of the perspectives and priorities of the residents and local officials. Notice for these meetings was provided through a combination of local meeting notices, press releases, and posting on the project web site. All of the open houses and public meetings provided an opportunity for the public to participate in the project development process and to review project information and comment on the project.

7.3 PUBLIC OPEN HOUSES

In addition to the community open house meetings discussed above, Mn/DOT has hosted open house meetings/public hearings at key points in the project development process. On December 12, 2006, a project scoping open house meeting was held at the Triton High School in Dodge Center. The purpose of the meeting was:

- To inform individuals of the upcoming EIS and design efforts
- To gather information from the public regarding the full range of alignment alternatives addressed in the Scoping Document
- To inform the public of opportunities to get involved in an important transportation project

On April 19, 2007 an open house was held to provide an update on the Draft EIS and to share the results of the access and interchange location analysis conducted for the corridor. Draft EIS public hearings were held on October 27th, 2008 at Triton High School in Dodge Center and October 30th, 2008 at the Mn/DOT District 6 Office in Owatonna. The public hearings included a presentation on the information contained in the Draft EIS as well as to obtain public input and comments on the document.

7.4 AGENCY/PUBLIC COORDINATION

Mn/DOT has regularly involved resource and regulatory agencies in the project development process. This practice has been established by incorporating the Participating Agency provisions outlined in the federal SAFETEA-LU regulations. The Participating Agency guidance calls for inviting and actively engaging federal, state, regional, and local governmental entities early in the project development process. The Highway 14 Participating Agency Committee includes members from local, state, and federal resource agencies. This includes, but is not limited to, cities, townships, school districts, counties, Soil and Water Conservation Districts, MNDNR, MPCA, MDA, EPA, USFWS, NRCS, and U.S. Army Corps of Engineers. An Agency and Public Coordination Plan was assembled at the onset of the project to facilitate the overall communication and coordination process. The interested reader may refer to Appendix A of the *Scoping Document* to review this plan, which is available for download on the project website. Additional

coordination meetings with various resource agencies and departments have occurred including extensive coordination with the local units of government through the use of the PAC and special city, county, and township meetings.

7.5 PROJECT NEWSLETTERS AND MAILINGS

A series of informational newsletters and mailings have been prepared and distributed to property owners and business owners in the project area with the intent of providing up-to-date project related information.

7.6 PROJECT WEB PAGE

An informational project web page has been established on the World Wide Web at (http://www.dot.state.mn.us/d6/projects/hwy14/). The site provides an additional means of distributing information and gathering input with an e-mail reply feature. The site is periodically updated to reflect project developments, planning/design changes, and to address new issues.

8.0 RESPONSE TO COMMENTS ON THE DRAFT EIS

The following section provides a response to public and agency comments received during the comment period for the Draft EIS. Public comments have been summarized by topic.

8.1 OPPORTUNITIES FOR PUBLIC COMMENT AND GUIDELINES FOR RESPONDING TO COMMENTS

The Draft EIS for the Highway 14 Project was distributed in October 2008 to agencies and organizations on the official distribution list, as well as additional agencies/organizations that had either requested a copy of the document, and/or that could be affected by the proposed project. The comment period for the Draft EIS officially closed on November 17, 2008.

Two public hearings to receive comments on the proposed project and Draft EIS were held as follows:

Monday, October 27, 2008, 5:00 to 7:00 p.m.
Triton High School
813 West Highway Street
Dodge Center, MN 55927

Thursday, October 30, 2008, 5:00 to 7:00 p.m.
Minnesota Department of Transportation District 6 Office
1010 21st Ave. NW
Owatonna, MN 55060

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 cards provided at the open house or in letter form. Comments could also be submitted via e-mail.
- Oral Statements: Attendees were invited to verbally cite their comments to a tape recorder provided at the sign-in table.

A total of 39 comments were received from private citizens, business representatives, interest groups, agencies, and other government entities during the comment period. No oral testimonies were given at the public hearings. All written comments from individuals were published as part of the Public Hearing Record for the Draft EIS, available upon request from the Mn/DOT Project Manager.

Consistent with state and federal environmental review rules, substantive comments are responded to in this Final EIS. Written responses have been provided for comments pertaining to analysis conducted for and documented in the Draft EIS. Specifically, responses have been prepared for statements noting incorrect or unclear information or content requirements. Comments agreeing with the Draft EIS/project information, general opinions, statements of fact, or statements of preference were not formally responded to in this

Final EIS. Written comments are summarized and responded to in Section 8.2. Copies of all government, agency, and organized interest group letters are included and responded to in Section 8.3 of this Final EIS.

8.2 SUMMARY AND RESPONSE TO WRITTEN PUBLIC COMMENTS

Response to Comments Regarding Right-of-Way Acquisition/Property Impacts

1) Comments regarding property acquisition included concern over the right-of-way process, property values, property owners against acquisition, and general concern regarding the acquisition of residences and businesses.

   Response: Where possible, the preferred alternative has been modified to reduce right-of-way impacts. The properties that have been identified for acquisition are either directly impacted by the reconstructed roadway or are parcels where reasonable access cannot be maintained. The project will not require any business relocations. Right-of-way acquisition will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, and 49 CFR part 24. See Final EIS Section 4.1 Right-of-Way and Relocation. Persons interested in obtaining additional information can contact the Mn/DOT District 6 Land Management Supervisor at (507) 285-7500.

2) One business representative located near the existing intersection of Steele County Road 6 and Highway 14 requested a service road from either Steele County Road 45 or Highway 218 to mitigate the perceived economic impact from the proposed access closure at Steele County Road 6.

   Response: The existing Steele County Road 6/Austin Road and Highway 14 right-in/right-out intersections will be closed as part of the proposed freeway design. Traffic currently using these limited access intersections will be directed to other roadways that connect to either the Steele County Road 45 interchange or the Highway 218 interchange. Access to the business will be maintained via County Road 18 (SE 28th Street) which will function as a backage road to the area south of the existing intersection. The preferred alternative also includes a cul-de-sac to the south of this existing intersection which will require the acquisition of right-of-way from this business. Right-of-way negotiations will occur in this area as part of the land acquisition process.

Response to Comments Regarding Potential Noise Impacts

1) Several respondents stated the project may further increase the existing noise problem along Highway 14 and asked what measures are

being proposed to abate possible increases in noise levels within the study area.

Response: The noise analysis indicated that future noise levels at many sensitive noise receptors exceeded both the Federal Noise Abatement Criteria and the State Noise Standards under the build alternative. Further noise analysis, including noise abatement feasibility, has been performed for the preferred alternative. See Final EIS Section 4.2 Noise.

The mitigation analysis, documented in this Final EIS, revealed that a 20-foot noise wall at a location north of Highway 14 and east of Steele County Road 45 is both acoustically effective in mitigating noise and also meets the Mn/DOT cost criteria of $3,250.00 per decibel of reduction per residence, making it economically reasonable. Based upon the location of this analyzed wall, taking into account the proper setback, sight lines, and location, a 20-foot noise wall that is approximately 4,700 feet in length is a feasible noise mitigation alternative. Taking this into account, a noise wall should be considered at this location for design and construction.

Response to Comments Regarding Road Design & Access

1) One commenter suggested that County Road 18 be extended east along SE 28th Street to Highway 218 due to the closure of County Road 6.

   Response: According to the Steele County Transportation Plan (2005 – 2025), this segment has already been designated as County Road 18. County Road 18 extends from the West Beltline to County Road 43 (East Belt Line).

2) One commenter suggested that the land area in between the ramps and mainline along County Road 59 Option 1 be used for storm retention ponds/wetland mitigation so that it could feed into the intermittent stream just west of the interchange area.

   Response: Since the publication of the Draft EIS, the project team has further refined the Steele County Road 43 (referenced in the Draft EIS as County Road 59) area interchange option to minimize the impact of the proposed improvement. Storm water detention ponds are planned at 14 locations along the corridor, including the area identified by the commenter. These wet detention ponds will be used as end of the line runoff control and storm water treatment. Wet detention ponds have been strategically placed in order to capture substantial amounts of the roadway runoff for treatment (see Figures A1 through A8 located in Appendix A for proposed pond locations). Note these pond sites are based on the preliminary design and specific locations and sizes may be altered if deemed necessary during the final design phase of the project. See Final EIS Section 4.2 Water Quality and Surface Water Drainage for additional information.

3) One commenter suggested that County Road 180 be reconstructed to tie directly into existing Highway 14, east of the at-grade DM&E crossing.

Response: The preliminary design for the preferred alternative includes the reconstruction and realignment of a short segment of County Road 180 with existing Highway 14 to improve safety conditions along the local street network.

4) One commenter suggested a slight jog to the south in the vicinity of SE 64th Street to reduce impacts to wetlands #41, #42, and #43. The commented also suggested that the excess land created between the mainline and the DM&E railroad by this jog could be used for wetland mitigation or landscaping/tree reforestation.

Response: The preliminary design considered a range of design modifications for the preferred alternative. An alignment shift to reduce impacts to wetlands #41, #42, and #43 was considered but not made due to the resulting right-of-way, relocation, farmland, and additional wetland impacts.

5) One commenter suggested a slight jog to the south to reduce impact to wetland #12 about ½ mile east of SE 64th Street.

Response: See response to comment #4 in this section.

6) One commenter suggested the triangulated area bounded by County Road 3, Highway 14, and the DM&E Railroad be used for wetland mitigation and/or landscaping/tree reforestation if Option 2 is chosen.

Response: Based on the comments and supporting analysis in the Draft EIS, Alternative 3 – South Bypass Alignment with Claremont Bypass Option 4 was identified as the preferred alternative and Claremont Bypass Option 2 was dismissed from further consideration.

7) One commenter suggested a slight jog to the south to reduce impacts to Wetland #62 east of 150th Avenue.

Response: Where possible, the preferred alternative has been modified to reduce wetland impacts. Avoidance and minimization measures have been explored to the greatest extent possible without compromising the safety of the improvements. The reasons for not avoiding impacts to a specific wetland and the minimization measures that were considered in the design of the preliminary layout for the preferred alternative are discussed in Final EIS Section 4.2 Wetlands. In particular, the wetland impacts at the identified location have been minimized in the design of the preliminary layout for the preferred alternative (see Figure A7 in Appendix A). Furthermore, the extension of 630th Street has been lengthened to continue east to intersect with Dodge County Road 5, which will provide a local connection to the Highway 56/Dodge County Road 5 and Highway 14 interchange.

8) One commenter suggested a slight jog to the southeast of the proposed Highway 14/Highway 56/County Road 5 interchange to reduce impacts to forested areas and to eliminate the relocation need in the northwest quadrant of existing Highway 14/County Road H.

Response: Since publication of the Draft EIS, the design of the Highway 56/Dodge County Road 5 and Highway 14 interchange has been slightly modified with input from Wasioja Township and area property owners to minimize impacts on area residents and farm operations.

9) One commenter suggested that existing Highway 14 be reconstructed to tie directly into old Highway 14/County Road 34. The commenter noted that this would preserve old Highway 14/County Road 34 as the primary road into Dodge Center proper, instead of County Road H, and provides for a continuous local access road, parallel to the new Highway 14, from Owatonna to Kasson.

Response: The design of the preferred alternative connects directly to existing Highway 56, which provides access to Dodge Center via County Road 34 and County Road H.

10) One commenter suggested that the intersection at County Road 59 be moved to the west to prevent residential and business impacts.

Response: Since the publication of the Draft EIS, additional public and agency coordination (i.e. Steele County, City of Owatonna, Havana Township, Owatonna Township) has occurred that helped determine the preferred interchange option at Steele County Road 43 (referenced in the Draft EIS as County Road 59). A series of interchange options were further refined and considered as part of developing the preliminary layout. Steele County and Havana Township independently hosted a public meeting to further receive input from area residents and landowners. Mn/DOT worked collaboratively with the County and Township to identify the best local interchange option that would minimize impacts and maintain adequate connections to the local transportation network. As a result of this process, a standard diamond interchange located at the existing County Road 43/Highway 14 intersection was identified as the preferred alternative for the Final EIS. Steele County, in cooperation with the City of Owatonna, and Havana Township, are considering an Eastern Beltway Study that will further consider local roadway improvements in this area of the County. If upon the conclusion of the study analysis it is recommended that the interchange location and/or configuration should be reconsidered, then the County will complete an independent environmental review that will comply with local, state, and federal requirements.

11) One commenter suggested that Mn/DOT designate 34th Ave to the east as the eastern beltway. The commenter noted that this would minimize displacement issues, mitigate wetland impacts, be a safer route, and stimulate greater use rather than County Road 59. Furthermore, the commenter noted that it would provide a direct route to Highway 218

for those using a north, south route and access to Highway 14 more efficiently. The commenter also suggested an "option two" type of configuration, but moved to the West and located at 34th Ave, which would route traffic from County Road 59 West to the East Beltway.

Response: It is Mn/DOT's understanding that Steele County will be proceeding with an independent study to determine their future eastern beltway. The alignment of this route will be determined as a result of this additional study.

12) One commenter identified specific impacts to their farming operation including increased travel time effects as a result of the proposed Highway 56/Dodge County Road 5 and Highway 14 interchange.

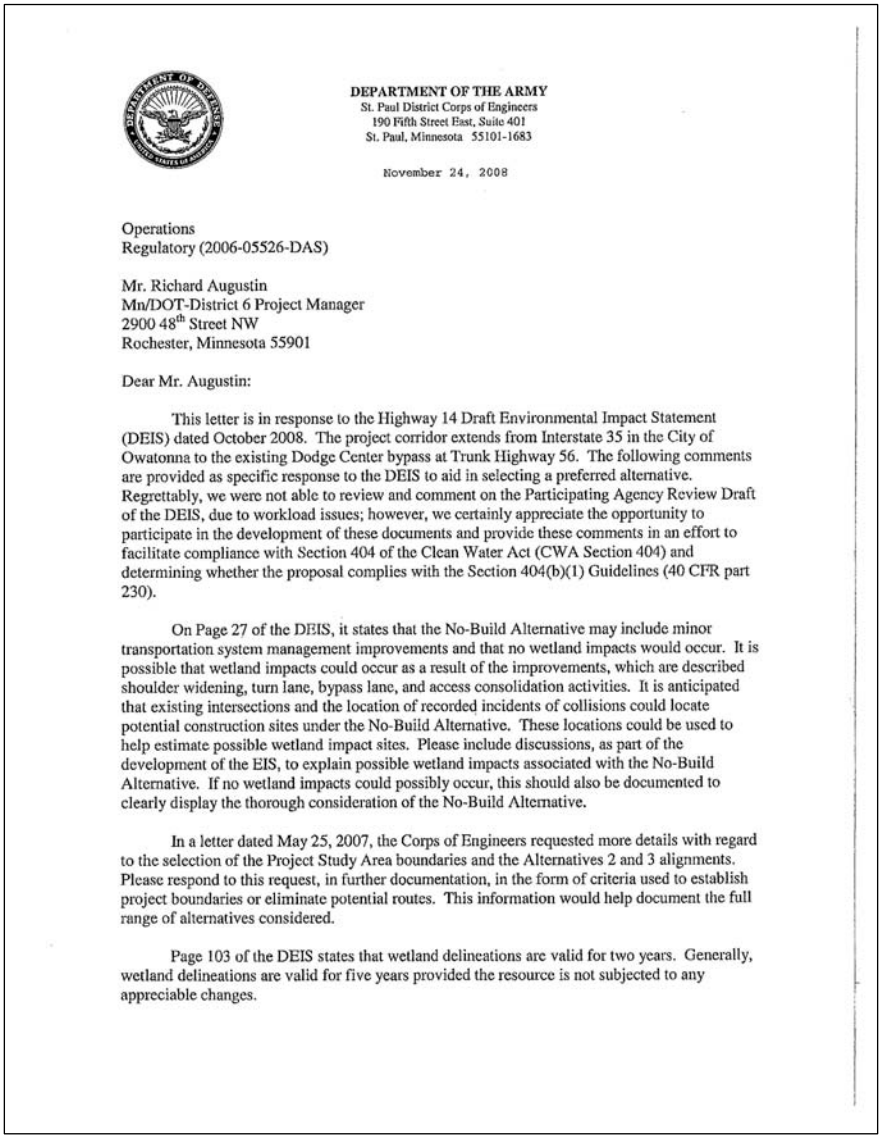
Response: See Final EIS Section 4.2 Prime and Statewide Important Farmland for a discussion of indirect impacts to farming operations. A controlled access highway will result in fewer access points than currently exist making farming operations more difficult in some areas. Additional travel time and expenses associated with access closures are likely to be offset by the benefits of improved safety over time provided by a controlled access highway corridor (freeway section). Since publication of the Draft EIS, the design of the Highway 56/Dodge County Road 5 and Highway 14 interchange has been slightly modified with input from Wasioja Township and area property owners.

8.3 AGENCY COMMENTS AND RESPONSES

Copies of comments submitted by the governmental agencies/organizations listed below are included on the following pages with "footnote" responses in the margin.

- U.S. Army Corps of Engineers
- U.S. Department of the Interior
- U.S. Environmental Protection Agency
- Minnesota Department of Agriculture
- Minnesota Department of Natural Resources
- Minnesota Pollution Control Agency
- Dodge County
- Dodge County Trails Association
- Steele County
- City of Claremont
- Claremont Township
- Havana Township
- Wasioja Township

U.S. Army Corps of Engineers (Page 1 of 3)



DEPARTMENT OF THE ARMY
St. Paul District Corps of Engineers
190 Fifth Street East, Suite 401
St. Paul, Minnesota 55101-1683

November 24, 2008

Operations
Regulatory (2006-05526-DAS)

Mr. Richard Augustin
Mn/DOT-District 6 Project Manager
2900 48th Street NW
Rochester, Minnesota 55901

Dear Mr. Augustin:

This letter is in response to the Highway 14 Draft Environmental Impact Statement (DEIS) dated October 2008. The project corridor extends from Interstate 35 in the City of Owatonna to the existing Dodge Center bypass at Trunk Highway 56. The following comments are provided as specific response to the DEIS to aid in selecting a preferred alternative. Regrettably, we were not able to review and comment on the Participating Agency Review Draft of the DEIS, due to workload issues; however, we certainly appreciate the opportunity to participate in the development of these documents and provide these comments in an effort to facilitate compliance with Section 404 of the Clean Water Act (CWA Section 404) and determining whether the proposal complies with the Section 404(b)(1) Guidelines (40 CFR part 230).

On Page 27 of the DEIS, it states that the No-Build Alternative may include minor transportation system management improvements and that no wetland impacts would occur. It is possible that wetland impacts could occur as a result of the improvements, which are described shoulder widening, turn lane, bypass lane, and access consolidation activities. It is anticipated that existing intersections and the location of recorded incidents of collisions could locate potential construction sites under the No-Build Alternative. These locations could be used to help estimate possible wetland impact sites. Please include discussions, as part of the development of the EIS, to explain possible wetland impacts associated with the No-Build Alternative. If no wetland impacts could possibly occur, this should also be documented to clearly display the thorough consideration of the No-Build Alternative.

In a letter dated May 25, 2007, the Corps of Engineers requested more details with regard to the selection of the Project Study Area boundaries and the Alternatives 2 and 3 alignments. Please respond to this request, in further documentation, in the form of criteria used to establish project boundaries or eliminate potential routes. This information would help document the full range of alternatives considered.

Page 103 of the DEIS states that wetland delineations are valid for two years. Generally, wetland delineations are valid for five years provided the resource is not subjected to any appreciable changes.

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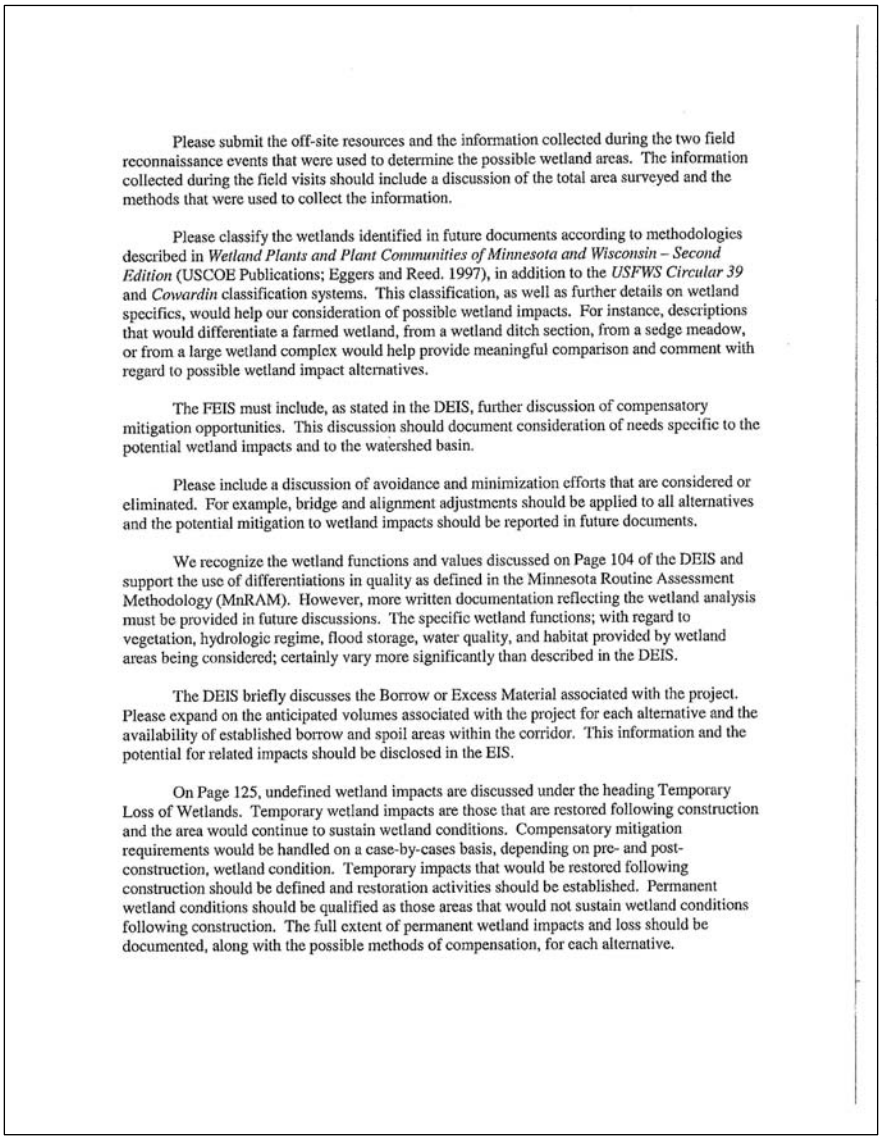
Response 1: The No-Build Alternative would involve no improvements being made to the existing Highway 14 corridor. The No-Build Alternative does not preclude ongoing maintenance work. Impacts from spot safety improvements would be minor, but cannot be accurately determined because no specific locations and/or types of improvements have been defined.

Response 2: The identified project termini (I-35 on the west and Dodge Center Bypass on the east) were selected because they represent the last segment of Highway 14 between the City of Mankato and the City of Rochester to be improved and expanded to a continuous four-lane highway (see Section II in the Scoping Document/Draft Scoping Decision Document and/or Draft EIS Section 2.1 Description of Project). Furthermore, a Pre-Section 404 Permit Application meeting was held in July 2007 with the U.S. Army Corps of Engineers (see Draft EIS Section 7.4 Agency/Public Coordination). The purpose of the meeting was to initiate early coordination between the USACE and Mn/DOT on the Highway 14 Improvement Project. Mn/DOT will continue to engage the Corps in the development of the project.

Response 3: Comment Noted. The Highway 14 Wetlands Delineation Report will be reviewed and revised as needed prior to project construction and delineations will be verified if more than five years have passed.

U.S. Army Corps of Engineers (Page 2 of 3)



Please submit the off-site resources and the information collected during the two field reconnaissance events that were used to determine the possible wetland areas. The information collected during the field visits should include a discussion of the total area surveyed and the methods that were used to collect the information. 4

Please classify the wetlands identified in future documents according to methodologies described in *Wetland Plants and Plant Communities of Minnesota and Wisconsin – Second Edition* (USCOE Publications; Eggers and Reed. 1997), in addition to the *USFWS Circular 39* and *Cowardin* classification systems. This classification, as well as further details on wetland specifics, would help our consideration of possible wetland impacts. For instance, descriptions that would differentiate a farmed wetland, from a wetland ditch section, from a sedge meadow, or from a large wetland complex would help provide meaningful comparison and comment with regard to possible wetland impact alternatives. 5

The FEIS must include, as stated in the DEIS, further discussion of compensatory mitigation opportunities. This discussion should document consideration of needs specific to the potential wetland impacts and to the watershed basin. 6

Please include a discussion of avoidance and minimization efforts that are considered or eliminated. For example, bridge and alignment adjustments should be applied to all alternatives and the potential mitigation to wetland impacts should be reported in future documents. 7

We recognize the wetland functions and values discussed on Page 104 of the DEIS and support the use of differentiations in quality as defined in the Minnesota Routine Assessment Methodology (MnRAM). However, more written documentation reflecting the wetland analysis must be provided in future discussions. The specific wetland functions; with regard to vegetation, hydrologic regime, flood storage, water quality, and habitat provided by wetland areas being considered; certainly vary more significantly than described in the DEIS. 8

The DEIS briefly discusses the Borrow or Excess Material associated with the project. Please expand on the anticipated volumes associated with the project for each alternative and the availability of established borrow and spoil areas within the corridor. This information and the potential for related impacts should be disclosed in the EIS. 9

On Page 125, undefined wetland impacts are discussed under the heading Temporary Loss of Wetlands. Temporary wetland impacts are those that are restored following construction and the area would continue to sustain wetland conditions. Compensatory mitigation requirements would be handled on a case-by-cases basis, depending on pre- and post-construction, wetland condition. Temporary impacts that would be restored following construction should be defined and restoration activities should be established. Permanent wetland conditions should be qualified as those areas that would not sustain wetland conditions following construction. The full extent of permanent wetland impacts and loss should be documented, along with the possible methods of compensation, for each alternative. 10

Response 4: Since the publication of the Draft EIS and identification of the preferred alternative, a detailed wetland delineation process has been undertaken using the methodology of the Corps of Engineers Wetlands Delineation Manual, 1987, and the Midwest Regional Supplement. The delineation methodology, process, and detailed results are described in the Highway 14 Wetlands Delineation Report, which is available for review at the Mn/DOT District 6 Office in Rochester, Minnesota. A copy of this report was forwarded to the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service. See Final EIS Section 4.2 Wetlands for additional information regarding impacts to wetlands.

Response 5: The impact of the preferred alternative on delineated wetlands is discussed in Final EIS Section 4.2 Wetlands. The wetland impacts associated with the preferred alternative are listed in this Final EIS in accordance with the Cowardin, the Circular 39, and the Eggers and Reed wetland classifications systems.

Response 6: See Final EIS Section 4.2 Wetlands for a discussion of compensatory mitigation opportunities associated with the preferred alternative. Replacement of lost wetlands will be in

accordance with state and federal regulatory requirements at the time of project construction. Replacement will occur prior to or concurrent with the wetland impacts, and will include all efforts to provide “in-kind”, “in place” and “in-advance” wetland replacement. Furthermore, efforts will be made to replace all lost functions and values. This will likely require the use of wetland banking, which is currently the preferred method of mitigation for both the USACE and the WCA.

Mn/DOT’s existing wetland bank system may provide eligible credit, to date there are existing accounts and wetland credits held by Mn/DOT within the Bank Service Area and assuming the potentially long term of the project schedule, additional bank sites could be developed over the next several years to accommodate the project needs. The specific method(s) for mitigating impacts to wetlands will be determined during the final design phase and permitting of the project. The Highway 14 Wetlands Delineation Report will be reviewed and revised as needed prior to project construction.

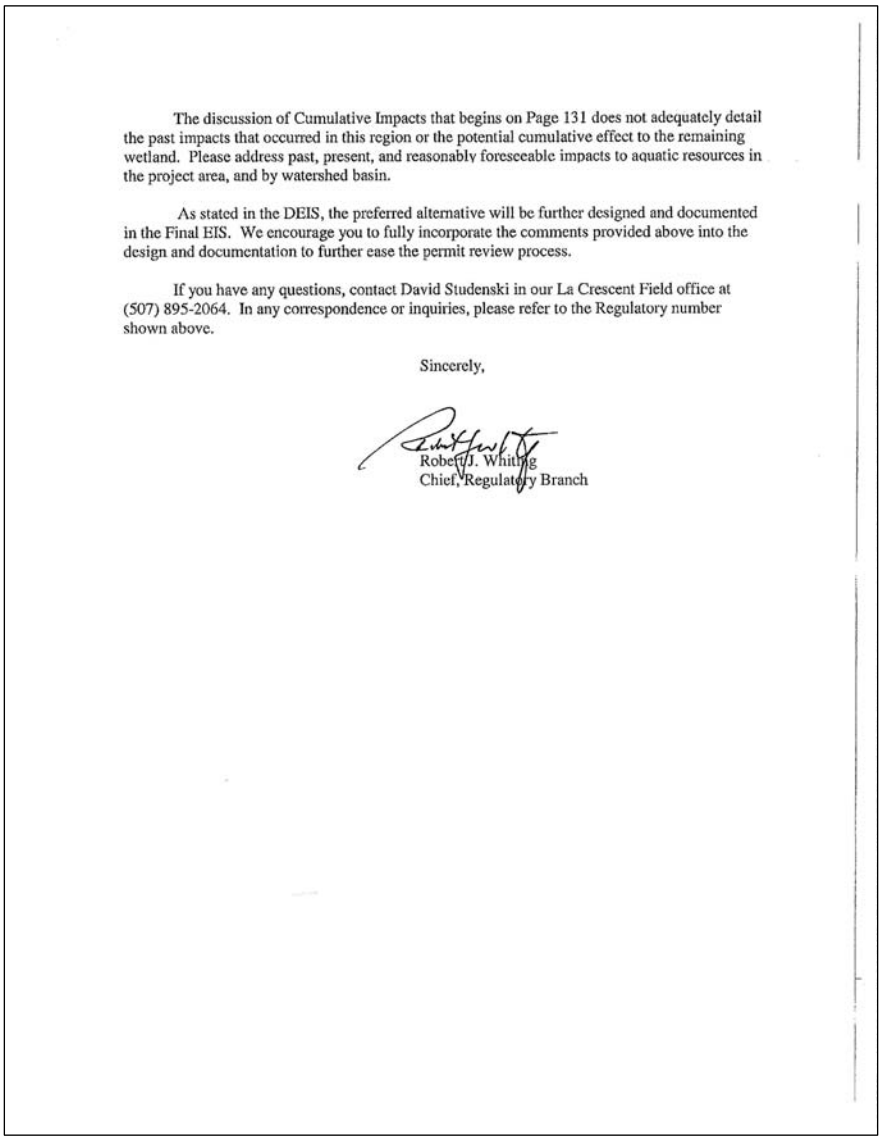
Response 7: Avoidance and minimization measures have been explored to the greatest extent possible without compromising the safety of the improvements. The reasons for not avoiding impacts to a specific wetland and the minimization measures that were considered in the design of the preliminary layout for the preferred alternative are discussed in Final EIS Section 4.2 Wetlands.

Response 8: A detailed discussion of wetland functions and values can be found in the Highway 14 Wetlands Delineation Report which is summarized in Final EIS Section 4.2 Wetlands. A copy of this report was forwarded to the U.S. Army Corps of Engineers, the U.S. Environmental Protection Agency, and the U.S. Fish and Wildlife Service.

Response 9: The amount of soil to be moved will be quantified as final design progresses. Section 4.3 of this Final EIS discusses borrow and excess materials that may be associated with the construction of the preferred alternative.

Response 10: The amount of permanent wetland impacts, and possible compensation, associated with the preferred alternative is discussed in Final EIS Section 4.2 Wetlands.

U.S. Army Corps of Engineers (Page 3 of 3)



The discussion of Cumulative Impacts that begins on Page 131 does not adequately detail the past impacts that occurred in this region or the potential cumulative effect to the remaining wetland. Please address past, present, and reasonably foreseeable impacts to aquatic resources in the project area, and by watershed basin.

As stated in the DEIS, the preferred alternative will be further designed and documented in the Final EIS. We encourage you to fully incorporate the comments provided above into the design and documentation to further ease the permit review process.

If you have any questions, contact David Studenski in our La Crescent Field office at (507) 895-2064. In any correspondence or inquiries, please refer to the Regulatory number shown above.

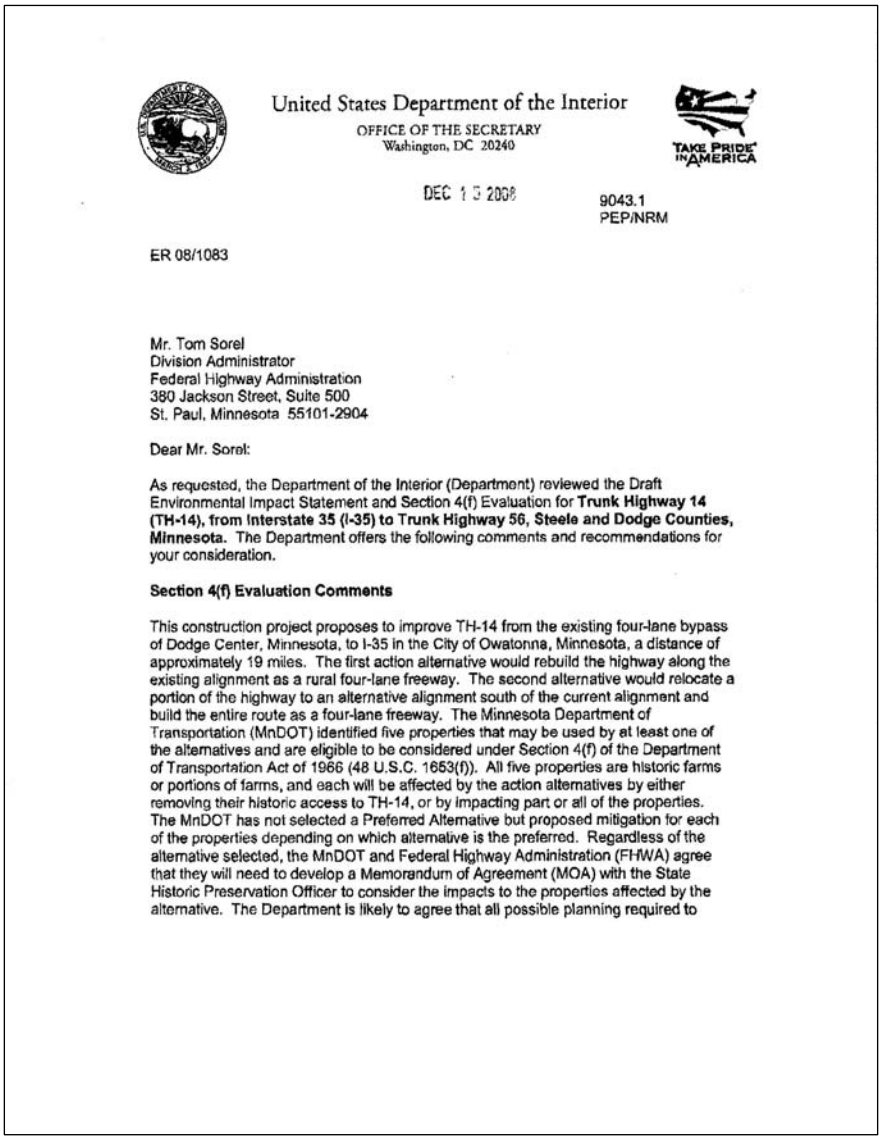
Sincerely,

Robert J. Whiting
Chief, Regulatory Branch

11

Response 11: Agricultural activity has degraded or impacted a majority of the wetlands in the project corridor either directly or indirectly. See Final EIS Section 4.2 – Cumulative Impacts for a complete discussion of potential cumulative effects resulting from the incremental effects of the Highway 14 Improvement Project along with all past, present, and reasonably foreseeable future projects within the study area.

U.S. Department of the Interior (Page 1 of 2)



United States Department of the Interior
OFFICE OF THE SECRETARY
Washington, DC 20240

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ER 08/1083

Mr. Tom Sorel
Division Administrator
Federal Highway Administration
380 Jackson Street, Suite 500
St. Paul, Minnesota 55101-2904

Dear Mr. Sorel:

As requested, the Department of the Interior (Department) reviewed the Draft Environmental Impact Statement and Section 4(f) Evaluation for **Trunk Highway 14 (TH-14), from Interstate 35 (I-35) to Trunk Highway 56, Steele and Dodge Counties, Minnesota.** The Department offers the following comments and recommendations for your consideration.

Section 4(f) Evaluation Comments

This construction project proposes to improve TH-14 from the existing four-lane bypass of Dodge Center, Minnesota, to I-35 in the City of Owatonna, Minnesota, a distance of approximately 19 miles. The first action alternative would rebuild the highway along the existing alignment as a rural four-lane freeway. The second alternative would relocate a portion of the highway to an alternative alignment south of the current alignment and build the entire route as a four-lane freeway. The Minnesota Department of Transportation (MnDOT) identified five properties that may be used by at least one of the alternatives and are eligible to be considered under Section 4(f) of the Department of Transportation Act of 1966 (48 U.S.C. 1653(f)). All five properties are historic farms or portions of farms, and each will be affected by the action alternatives by either removing their historic access to TH-14, or by impacting part or all of the properties. The MnDOT has not selected a Preferred Alternative but proposed mitigation for each of the properties depending on which alternative is the preferred. Regardless of the alternative selected, the MnDOT and Federal Highway Administration (FHWA) agree that they will need to develop a Memorandum of Agreement (MOA) with the State Historic Preservation Officer to consider the impacts to the properties affected by the alternative. The Department is likely to agree that all possible planning required to

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Response 1: An executed copy of the Memorandum of Agreement (MOA) with the State Historic Preservation Officer is included in Appendix B.

U.S. Department of the Interior (Page 2 of 2)

minimize potential harm to these resources has been employed, provided an executed copy of an MOA is included in the final evaluation.

General Comments

There are currently two construction alternatives proposed for upgrading TH-14 in addition to the No-Build Alternative. While detailed design and construction plans for each alternative are not available, the U.S. Fish and Wildlife Service favors Alternative 2. This alternative involves construction of the proposed project on the existing alignment of TH-14. Construction of Alternative 3 would have a greater potential for impacts to wildlife since this alternative would establish a new highway transportation corridor (albeit adjacent to an existing railroad corridor). Both alternatives impact nearly the same wetland acreage (15-17 acres). We concur that unavoidable wetland loss acres be replaced under the Minnesota Wetland Conservation Act and Section 404 of the Clean Water Act regardless of which alternative is selected by the MnDOT.

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 Section 4(f) resources, please contact Environmental Coordinator Nick Chevance, Midwest Region, National Park Service, 601 Riverfront Drive, Omaha, Nebraska 68102, telephone 402-661-1844. For continued consultation and coordination on issues related to the wetlands, please contact Gary Wege, U.S. Fish and Wildlife Service, Twin Cities Field Office, 41-1 American Boulevard East, Bloomington, Minnesota 55425-1665; telephone 612-725-3548, extension 207.

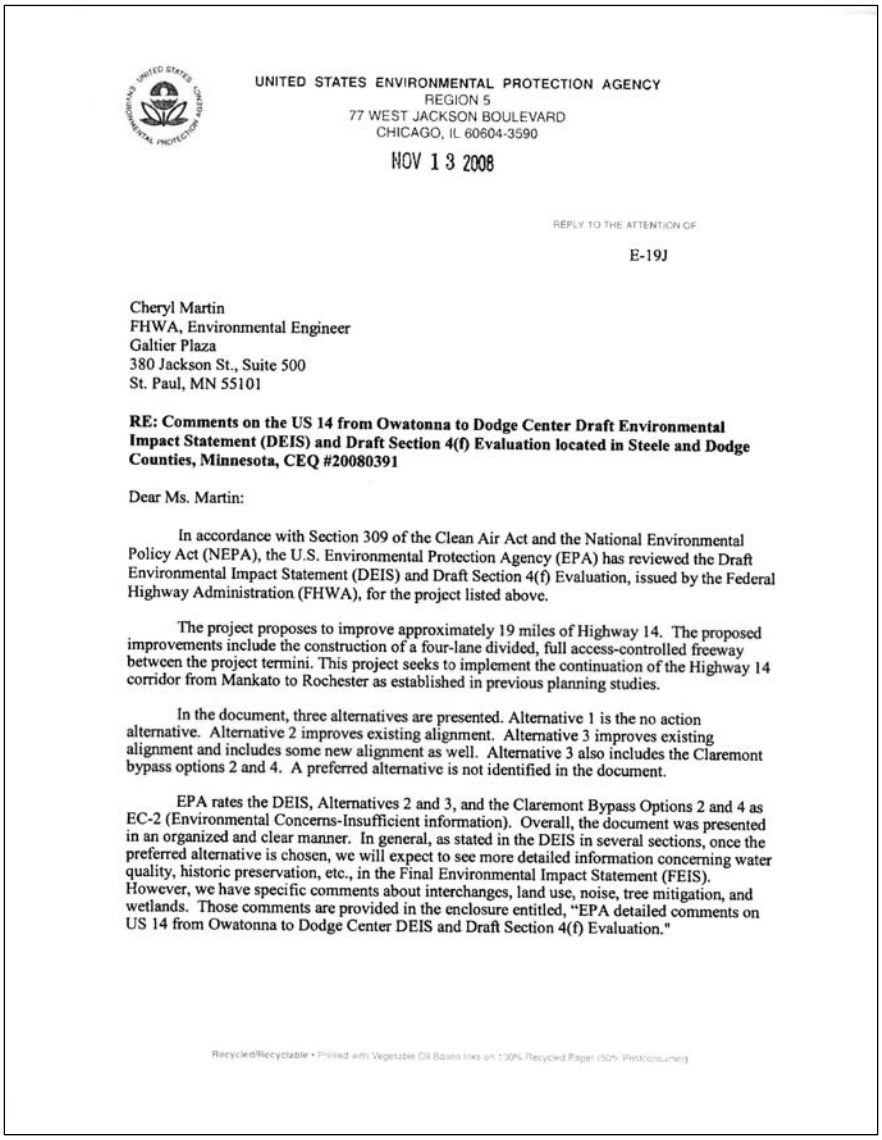
We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

1 (continued)

U.S. Environmental Protection Agency (Page 1 of 5)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV 13 2008

REPLY TO THE ATTENTION OF

E-19J

Cheryl Martin
FHWA, Environmental Engineer
Galtier Plaza
380 Jackson St., Suite 500
St. Paul, MN 55101

RE: Comments on the US 14 from Owatonna to Dodge Center Draft Environmental Impact Statement (DEIS) and Draft Section 4(f) Evaluation located in Steele and Dodge Counties, Minnesota, CEQ #20080391

Dear Ms. Martin:

In accordance with Section 309 of the Clean Air Act and the National Environmental Policy Act (NEPA), the U.S. Environmental Protection Agency (EPA) has reviewed the Draft Environmental Impact Statement (DEIS) and Draft Section 4(f) Evaluation, issued by the Federal Highway Administration (FHWA), for the project listed above.

The project proposes to improve approximately 19 miles of Highway 14. The proposed improvements include the construction of a four-lane divided, full access-controlled freeway between the project termini. This project seeks to implement the continuation of the Highway 14 corridor from Mankato to Rochester as established in previous planning studies.

In the document, three alternatives are presented. Alternative 1 is the no action alternative. Alternative 2 improves existing alignment. Alternative 3 improves existing alignment and includes some new alignment as well. Alternative 3 also includes the Claremont bypass options 2 and 4. A preferred alternative is not identified in the document.

EPA rates the DEIS, Alternatives 2 and 3, and the Claremont Bypass Options 2 and 4 as EC-2 (Environmental Concerns-Insufficient information). Overall, the document was presented in an organized and clear manner. In general, as stated in the DEIS in several sections, once the preferred alternative is chosen, we will expect to see more detailed information concerning water quality, historic preservation, etc., in the Final Environmental Impact Statement (FEIS). However, we have specific comments about interchanges, land use, noise, tree mitigation, and wetlands. Those comments are provided in the enclosure entitled, "EPA detailed comments on US 14 from Owatonna to Dodge Center DEIS and Draft Section 4(f) Evaluation."

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U.S. Environmental Protection Agency (Page 2 of 5)

If you have any questions regarding EPA's comments, please contact Ms. Julia Guenther at (312) 886-3172 or email her at guenther.julia @epa.gov.

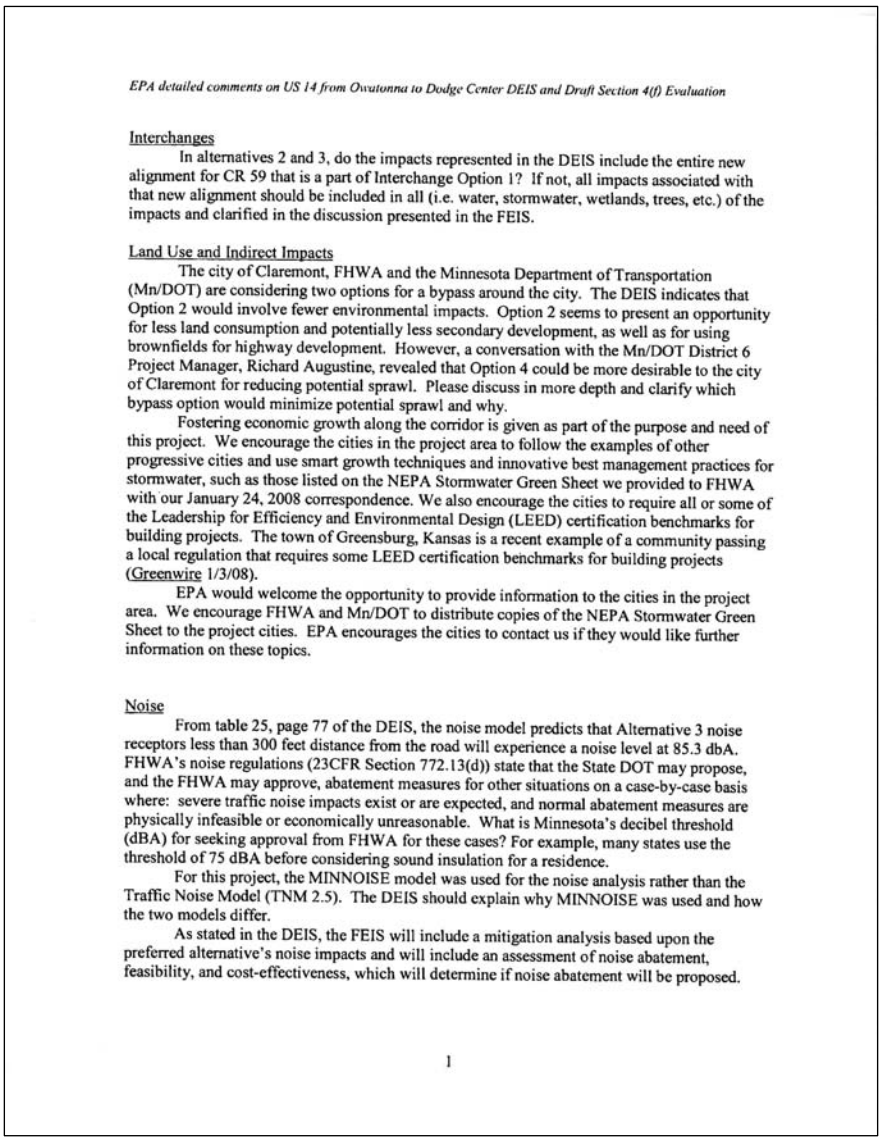
Sincerely,

Kenneth A. Westlake
Supervisor, NEPA Implementation
Office of Enforcement and Compliance Assurance

cc: Richard Augustin, MN/DOT-District 6 Office, Project Manager, 2900 48th Street NW, Rochester, MN 55901

Enclosures: (1) U.S. EPA detailed comments on US 14 from Owatonna to Dodge Center DEIS and Draft Section 4(f) Evaluation
(2) Summary of Rating Definitions and Follow-Up Action

U.S. Environmental Protection Agency (Page 3 of 5)



EPA detailed comments on US 14 from Owatonna to Dodge Center DEIS and Draft Section 4(f) Evaluation

Interchanges

In alternatives 2 and 3, do the impacts represented in the DEIS include the entire new alignment for CR 59 that is a part of Interchange Option 1? If not, all impacts associated with that new alignment should be included in all (i.e. water, stormwater, wetlands, trees, etc.) of the impacts and clarified in the discussion presented in the FEIS. 1

Land Use and Indirect Impacts

The city of Claremont, FHWA and the Minnesota Department of Transportation (Mn/DOT) are considering two options for a bypass around the city. The DEIS indicates that Option 2 would involve fewer environmental impacts. Option 2 seems to present an opportunity for less land consumption and potentially less secondary development, as well as for using brownfields for highway development. However, a conversation with the Mn/DOT District 6 Project Manager, Richard Augustine, revealed that Option 4 could be more desirable to the city of Claremont for reducing potential sprawl. Please discuss in more depth and clarify which bypass option would minimize potential sprawl and why. 2

Fostering economic growth along the corridor is given as part of the purpose and need of this project. We encourage the cities in the project area to follow the examples of other progressive cities and use smart growth techniques and innovative best management practices for stormwater, such as those listed on the NEPA Stormwater Green Sheet we provided to FHWA with our January 24, 2008 correspondence. We also encourage the cities to require all or some of the Leadership for Efficiency and Environmental Design (LEED) certification benchmarks for building projects. The town of Greensburg, Kansas is a recent example of a community passing a local regulation that requires some LEED certification benchmarks for building projects (Greenwire 1/3/08). 3

EPA would welcome the opportunity to provide information to the cities in the project area. We encourage FHWA and Mn/DOT to distribute copies of the NEPA Stormwater Green Sheet to the project cities. EPA encourages the cities to contact us if they would like further information on these topics.

Noise

From table 25, page 77 of the DEIS, the noise model predicts that Alternative 3 noise receptors less than 300 feet distance from the road will experience a noise level at 85.3 dbA. FHWA's noise regulations (23CFR Section 772.13(d)) state that the State DOT may propose, and the FHWA may approve, abatement measures for other situations on a case-by-case basis where: severe traffic noise impacts exist or are expected, and normal abatement measures are physically infeasible or economically unreasonable. What is Minnesota's decibel threshold (dBA) for seeking approval from FHWA for these cases? For example, many states use the threshold of 75 dBA before considering sound insulation for a residence. 4

For this project, the MINNOISE model was used for the noise analysis rather than the Traffic Noise Model (TNM 2.5). The DEIS should explain why MINNOISE was used and how the two models differ. 5

As stated in the DEIS, the FEIS will include a mitigation analysis based upon the preferred alternative's noise impacts and will include an assessment of noise abatement, feasibility, and cost-effectiveness, which will determine if noise abatement will be proposed. 6

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Response 1: The impact calculations represented in the Draft EIS (and Final EIS) includes the interchange option and associated local roadway improvements.

Response 2: The submitted comment letter from the City of Claremont outlines the local impacts associated with the two Claremont bypass options. Claremont South Bypass Option 4 was identified as part of the preferred alternative because it avoids dividing the City of Claremont and provides for desirable future land development opportunities.

Potential development at interchange areas will be regulated by City and/or County zoning regulations. Most of the proposed interchange areas are currently zoned for agriculture, so local zoning/comprehensive plan changes would need to be enacted for future development to occur. The timeframe of project construction and City/County zoning regulations will determine if, when and where future development may occur.

Response 3: The NEPA Stormwater Green Sheet is discussed in Final EIS Section 4.1 – Land Use and is included in this response to comments section.

Response 4: Since the publication of the Draft EIS and identification of the preferred alternative, a more detailed analysis of noise impacts was completed (see Final EIS Section 4.2 Noise). The objective of this analysis was to further quantify the potential impacts of the preferred alternative using a more detailed model that considers a specific alignment, locations of receptors, and topography of the area. The results of this modeling were then used to determine the feasibility and cost reasonableness of using noise walls to provide mitigation for the project's impacts on receptors.

Mn/DOT's Noise Policy is based on state and federal noise regulations. Projects without federal funding do not need to meet federal noise regulations. However, those projects that do not receive federal funding will, nevertheless, have to meet State noise regulations, be evaluated by Mn/DOT for need for noise mitigation, where necessary be evaluated for cost-effectiveness and reasonableness of any mitigation, and all evaluations must be done using the same criteria and methodology that are applied to federally-funded projects. This procedure insures that Mn/DOT's decisions on noise levels are made consistently with all projects, despite funding sources. Mn/DOT does not have a decibel threshold for seeking approval from FHWA for cases cited in 23 CFR Section 772.13(d).

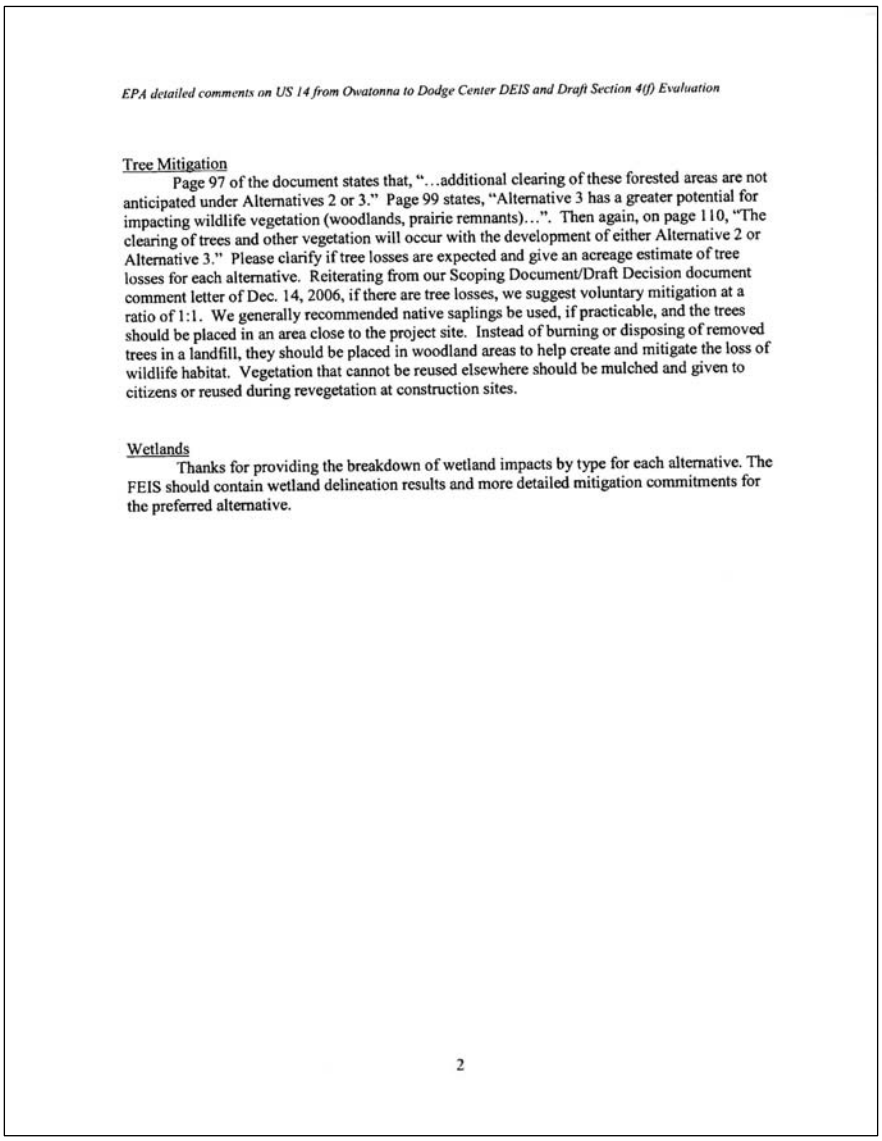
Response 5: Mn/DOT currently uses the Federal Highway Administration (FHWA) STAMINA model to model sound levels retrofitted to use Minnesota vehicle emission data. The name of this model is MINNOISE. The MINNOISE traffic noise prediction model is an FHWA approved model which must be used when a proposed project is reviewed by the Mn/DOT Office of Environmental Services.

FHWA uses the Traffic Noise Model (TNM). Minnesota was exempted from using TNM in the final rule (23 CFR Part 772). Information on the Traffic Noise Model is available at http://www.fhwa.dot.gov/environment/noise/tnm/index.htm.

Response 6: Further noise analysis, including noise abatement feasibility, has been performed for the preferred alternative. See Final EIS Section 4.2 Noise.

The mitigation analysis revealed that a 20-foot noise wall at a location north of Highway 14 and east of Steele County Road 45 is both acoustically effective in mitigating noise and also meets the Mn/DOT cost criteria of $3,250.00 per decibel of reduction per residence, making it economically reasonable. Based upon the location of this analyzed wall, taking into account the proper setback, sight lines, and location, a 20-foot noise wall that is approximately 4,700 feet in length is a feasible noise mitigation alternative. Taking this into account, a noise wall should be considered at this location for design and construction.

U.S. Environmental Protection Agency (Page 4 of 5)



EPA detailed comments on US 14 from Owatonna to Dodge Center DEIS and Draft Section 4(f) Evaluation

Tree Mitigation

Page 97 of the document states that, "…additional clearing of these forested areas are not anticipated under Alternatives 2 or 3." Page 99 states, "Alternative 3 has a greater potential for impacting wildlife vegetation (woodlands, prairie remnants)…". Then again, on page 110, "The clearing of trees and other vegetation will occur with the development of either Alternative 2 or Alternative 3." Please clarify if tree losses are expected and give an acreage estimate of tree losses for each alternative. Reiterating from our Scoping Document/Draft Decision document comment letter of Dec. 14, 2006, if there are tree losses, we suggest voluntary mitigation at a ratio of 1:1. We generally recommended native saplings be used, if practicable, and the trees should be placed in an area close to the project site. Instead of burning or disposing of removed trees in a landfill, they should be placed in woodland areas to help create and mitigate the loss of wildlife habitat. Vegetation that cannot be reused elsewhere should be mulched and given to citizens or reused during revegetation at construction sites.

Wetlands

Thanks for providing the breakdown of wetland impacts by type for each alternative. The FEIS should contain wetland delineation results and more detailed mitigation commitments for the preferred alternative.

2

7

Response 7: The preferred alternative will impact a small number of woodland areas (larger tracts of forestlands and densely vegetated farmsteads/building sites). There is approximately 23 acres of woodlands within the right-of-way of the preferred alternative. These impacts primarily occur along the fringe of these areas. For safety purposes, all mature vegetation within the highway clear zone will be removed. The cover type conversions assume complete impact of the entire proposed right-of-way corridor. This conservative approach does not take into account woodland areas that may remain within the proposed right-of-way that fall outside the designated clear zones. During the final design phase, a corridor landscaping plan will be prepared and efforts will be considered that minimize tree loss.

U.S. Environmental Protection Agency (Page 5 of 5)

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment

U.S. Environmental Protection Agency (NEPA Stormwater Green Sheet Attachment)

NEPA Stormwater Green Sheet

Stormwater section of NEPA documents should discuss/include (at a minimum):

- ✓ Compliance with NPDES construction and post-construction requirements (project larger than one acre has to comply by writing a pollution prevention plan)
- ✓ Compliance with local ordinances
- ✓ Compliance with the Energy Independence and Security Act of 2007

"Energy Independence and Security Act of 2007" Title IV ("Energy Savings in Building and Industry"), Subtitle C "(High Performance Federal Buildings"). Here is the entire provision:
SEC. 438. STORM WATER RUNOFF REQUIREMENTS FOR FEDERAL DEVELOPMENT PROJECTS.
The sponsor of any development or redevelopment project involving a Federal facility with a footprint that exceeds 5,000 square feet shall use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

This provision is quite significant. It will require Federal sites to achieve/maintain the predevelopment hydrology to the "maximum extent technically feasible". Sites will need to include things like rain gardens and permeable pavements in order to do this.

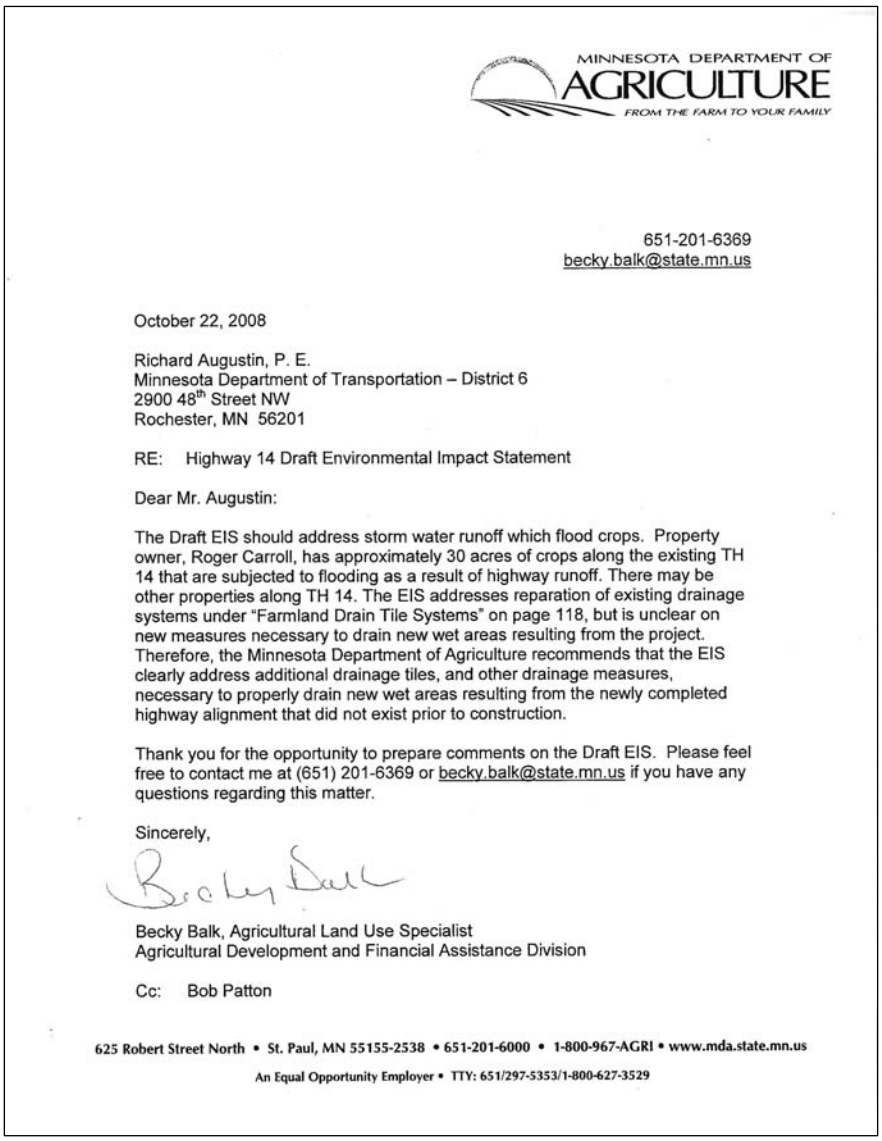
Stormwater measures beyond the bare minimum:

- ✓ Mimic natural hydrology. Does the project decrease the recharge of the upper aquifer system?
- ✓ Sensitive areas should be given treatment beyond the bare minimum
- ✓ Keep native vegetation during construction and replant ASAP
- ✓ What types of salt/chemicals are being used for deicing? Latest BMP's used for deicing? http://www.upperdesplainesriver.org/bbb_roadsalt.htm
- ✓ Sprawl is bad! Smart growth is good! Are there ways that the development can be implemented in a more compact area? www.epa.gov/ebtpages/pollsmartgrowth.html -select "pollution prevention programs" and "sustainability" for more info.
- ✓ Rain gardens, and permeable parking surfaces. Rain gardens and permeable parking surfaces increase the amount of water filtering into the ground and recharge aquifers, prevent community flooding and drainage problems, help protect waterbodies from pollutants carried by urban stormwater, and provide valuable wildlife habitat in an urban setting.
- ✓ Committment to creating a Sustainable Buildings Implementation Plan (per Executive Order 13423) prior to construction.
- ✓ Green roofs, created wetlands,vegetated swales, native plant landscapes, and rain barrels
- ✓ Websites that can help with Stormwater Pollution Prevention and Sustainable Design:
  - Menu of stormwater BMP's: http://cfpub1.epa.gov/npdes/stormwater/menuofbmps/
  - Medium and small-sized model stormwater pollution prevention guides for construction sites: www.epa.gov/npdes/swpppguide
  - Green infrastructure practices (e.g. rain gardens): http://www.epa.gov/npdes/greeninfrastructure/
  - Some standards, including standards for individual sites: http://www.sustainablesites.org/
  - Standards for neighborhoods (LEED for Neighborhood Development): http://www.usgbc.org/DisplayPage.aspx?CMSPageID=148
  - Center for Watershed Protection: www.cwp.org
  - Low impact Development Center: www.lowimpactdevelopment.org
  - Green Alley Handbook: http://egov.cityofchicago.org/city/webportal/home.do -at top of page City Departments, choose Transportation, under CDOT Programs choose Green Alleys, choose Green Alleys again and scroll down for the Green Alley Handbook
  - Menu of Stormwater Best Management Practices (compost-based fact sheets, etc.): http://cfpub.epa.gov/npdes/stormwater/menuofbmps/index.cfm

Last update: January 15, 2008

Note: The EPA's comment letter on the Highway 14 Participating Agency (Review Draft) Draft EIS (dated January 24, 2008) encouraged Mn/DOT and FHWA to distribute a copy of the NEPA Stormwater Green Sheet to the project cities as a way to share information about smart growth techniques and innovative best management practices for stormwater.

Minnesota Department of Agriculture (Page 1 of 1)



MINNESOTA DEPARTMENT OF AGRICULTURE
FROM THE FARM TO YOUR FAMILY

651-201-6369
becky.balk@state.mn.us

October 22, 2008

Richard Augustin, P. E.
Minnesota Department of Transportation – District 6
2900 48th Street NW
Rochester, MN 56201

RE: Highway 14 Draft Environmental Impact Statement

Dear Mr. Augustin:

The Draft EIS should address storm water runoff which flood crops. Property owner, Roger Carroll, has approximately 30 acres of crops along the existing TH 14 that are subjected to flooding as a result of highway runoff. There may be other properties along TH 14. The EIS addresses reparation of existing drainage systems under "Farmland Drain Tile Systems" on page 118, but is unclear on new measures necessary to drain new wet areas resulting from the project. Therefore, the Minnesota Department of Agriculture recommends that the EIS clearly address additional drainage tiles, and other drainage measures, necessary to properly drain new wet areas resulting from the newly completed highway alignment that did not exist prior to construction.

1

Thank you for the opportunity to prepare comments on the Draft EIS. 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

Becky Balk, Agricultural Land Use Specialist
Agricultural Development and Financial Assistance Division

Cc: Bob Patton

625 Robert Street North • St. Paul, MN 55155-2538 • 651-201-6000 • 1-800-967-AGRI • www.mda.state.mn.us
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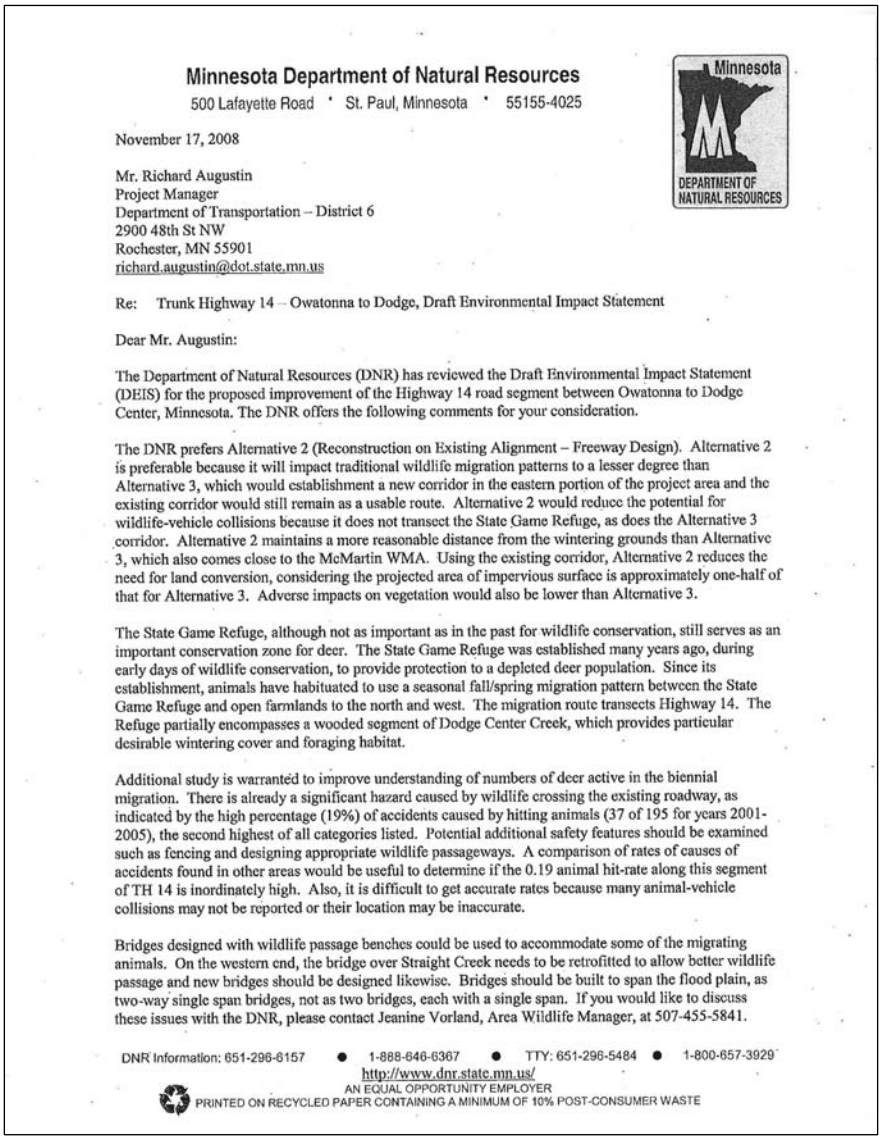
Response 1: A more detailed consideration of farm drainage systems has been included in the preliminary design of the preferred alternative (see Final EIS Section 4.2 Geology/Groundwater).

Minnesota Department of Natural Resources (Page 1 of 2)



Minnesota Department of Natural Resources
500 Lafayette Road • St. Paul, Minnesota • 55155-4025

November 17, 2008

Mr. Richard Augustin
Project Manager
Department of Transportation – District 6
2900 48th St NW
Rochester, MN 55901
richard.augustin@dot.state.mn.us

Re: Trunk Highway 14 – Owatonna to Dodge, Draft Environmental Impact Statement

Dear Mr. Augustin:

The Department of Natural Resources (DNR) has reviewed the Draft Environmental Impact Statement (DEIS) for the proposed improvement of the Highway 14 road segment between Owatonna to Dodge Center, Minnesota. The DNR offers the following comments for your consideration.

The DNR prefers Alternative 2 (Reconstruction on Existing Alignment – Freeway Design). Alternative 2 is preferable because it will impact traditional wildlife migration patterns to a lesser degree than Alternative 3, which would establishment a new corridor in the eastern portion of the project area and the existing corridor would still remain as a usable route. Alternative 2 would reduce the potential for wildlife-vehicle collisions because it does not transect the State Game Refuge, as does the Alternative 3 corridor. Alternative 2 maintains a more reasonable distance from the wintering grounds than Alternative 3, which also comes close to the McMartin WMA. Using the existing corridor, Alternative 2 reduces the need for land conversion, considering the projected area of impervious surface is approximately one-half of that for Alternative 3. Adverse impacts on vegetation would also be lower than Alternative 3.

The State Game Refuge, although not as important as in the past for wildlife conservation, still serves as an important conservation zone for deer. The State Game Refuge was established many years ago, during early days of wildlife conservation, to provide protection to a depleted deer population. Since its establishment, animals have habituated to use a seasonal fall/spring migration pattern between the State Game Refuge and open farmlands to the north and west. The migration route transects Highway 14. The Refuge partially encompasses a wooded segment of Dodge Center Creek, which provides particular desirable wintering cover and foraging habitat.

Additional study is warranted to improve understanding of numbers of deer active in the biennial migration. There is already a significant hazard caused by wildlife crossing the existing roadway, as indicated by the high percentage (19%) of accidents caused by hitting animals (37 of 195 for years 2001-2005), the second highest of all categories listed. Potential additional safety features should be examined such as fencing and designing appropriate wildlife passageways. A comparison of rates of causes of accidents found in other areas would be useful to determine if the 0.19 animal hit-rate along this segment of TH 14 is inordinately high. Also, it is difficult to get accurate rates because many animal-vehicle collisions may not be reported or their location may be inaccurate.

Bridges designed with wildlife passage benches could be used to accommodate some of the migrating animals. On the western end, the bridge over Straight Creek needs to be retrofitted to allow better wildlife passage and new bridges should be designed likewise. Bridges should be built to span the flood plain, as two-way single span bridges, not as two bridges, each with a single span. If you would like to discuss these issues with the DNR, please contact Jeanine Vorland, Area Wildlife Manager, at 507-455-5841.

DNR Information: 651-296-6157 • 1-888-646-6367 • TTY: 651-296-5484 • 1-800-657-3929
http://www.dnr.state.mn.us/
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Response 1: The preferred alternative will pass through the Claremont Game Refuge, which includes habitat for many birds and mammal species. Potential impacts include higher than average deer collision rates. Deer-car collisions are most likely to occur during wintering season in the area of the Claremont Game Refuge.

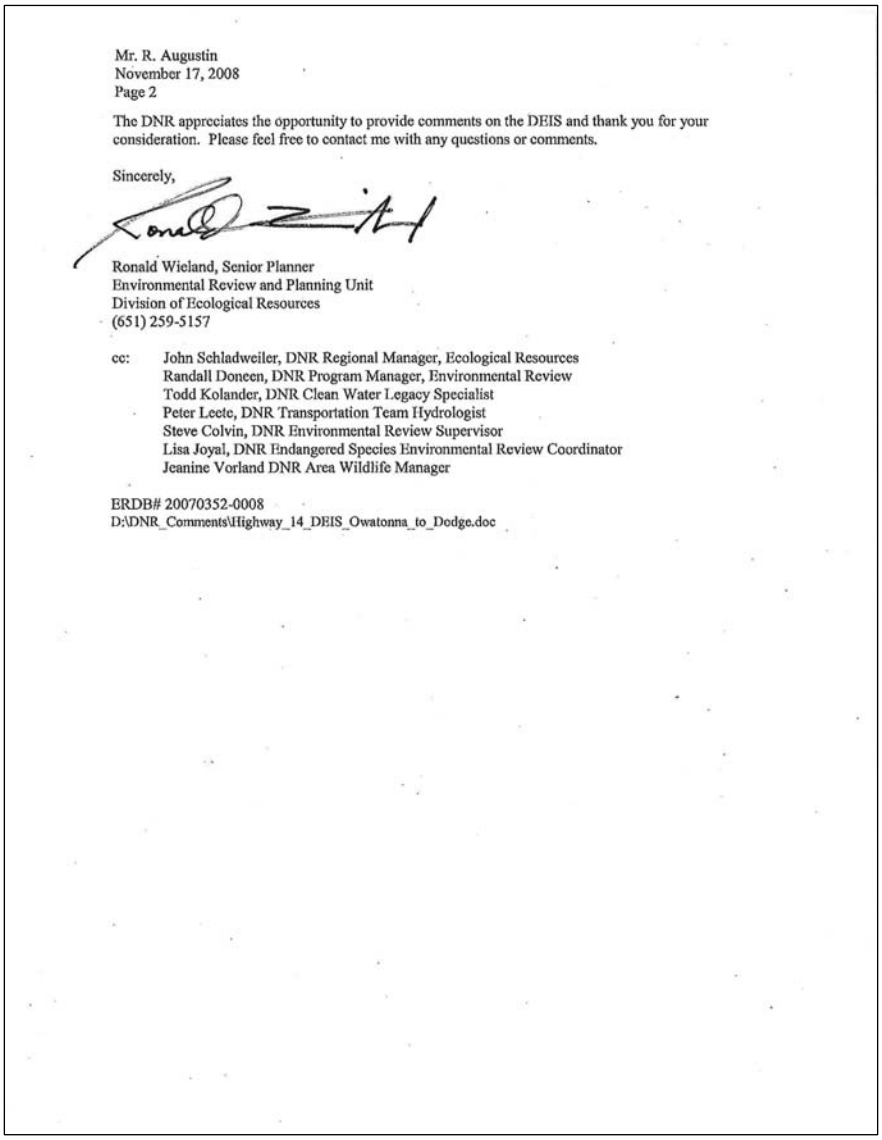
As identified in Table 6 of the Draft EIS, there were 37 reported crashes involving animals on this segment of Highway 14 during the five-year crash history review period (Jan. 2001 – Dec. 2005). The additional study being requested to determine if the 0.19 animal hit-rate along this segment of Highway 14 is inordinately high would be difficult to determine because accurate data is not easy to obtain since many animal related crashes are not reported.

Mitigation for deer-car collisions will be further discussed with the MNDNR and considered as part of the final design. Mitigation options may include planting non-preferred vegetation in the right-of-way, adding more frequent deer crossing signs, and installing wildlife passages with fencing and periodic one-way gates or jump ramps along the right-of-way.

Response 2: The preliminary layout of the preferred alternative includes the replacement of the single span highway bridges over the Straight River in their existing location. Slight design modifications to accommodate wider shoulders are planned for the replacement bridges. The design of the replacement bridges will also include wildlife passage benches to accommodate migrating animals.

A single span two-way bridge is not cost effective at this location since the proposed improvement consists of a rural section. This type of bridge would unnecessarily create additional impervious surface.

Minnesota Department of Natural Resources (Page 2 of 2)



Mr. R. Augustin
November 17, 2008
Page 2

The DNR appreciates the opportunity to provide comments on the 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

cc: John Schladweiler, DNR Regional Manager, Ecological Resources
Randall Doneen, DNR Program Manager, Environmental Review
Todd Kolander, DNR Clean Water Legacy Specialist
Peter Leete, DNR Transportation Team Hydrologist
Steve Colvin, DNR Environmental Review Supervisor
Lisa Joyal, DNR Endangered Species Environmental Review Coordinator
Jeanine Vorland DNR Area Wildlife Manager

ERDB# 20070352-0008
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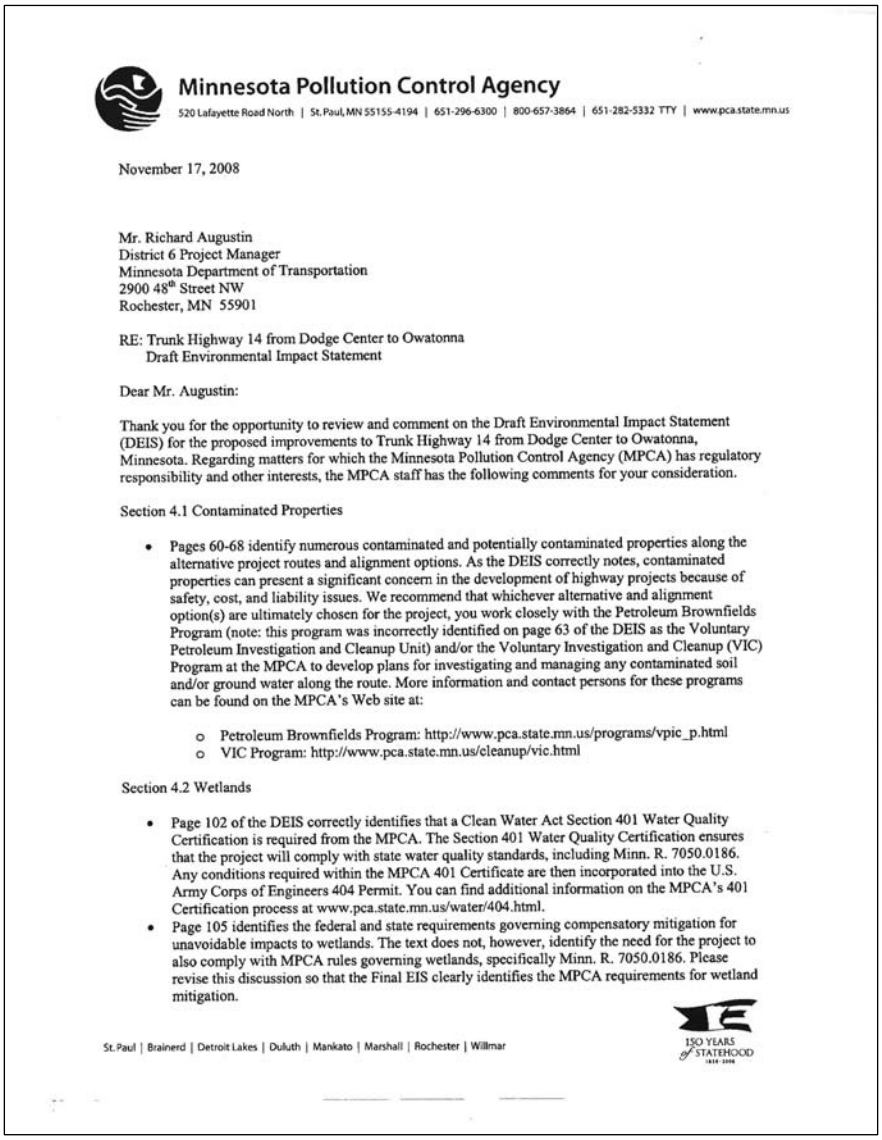
Minnesota Pollution Control Agency (Page 1 of 2)



Minnesota Pollution Control Agency
520 Lafayette Road North | St. Paul, MN 55155-4194 | 651-296-6300 | 800-657-3864 | 651-282-5332 TTY | www.pca.state.mn.us

November 17, 2008

Mr. Richard Augustin
District 6 Project Manager
Minnesota Department of Transportation
2900 48th Street NW
Rochester, MN 55901

RE: Trunk Highway 14 from Dodge Center to Owatonna
Draft Environmental Impact Statement

Dear Mr. Augustin:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Statement (DEIS) for the proposed improvements to Trunk Highway 14 from Dodge Center to Owatonna, Minnesota. Regarding matters for which the Minnesota Pollution Control Agency (MPCA) has regulatory responsibility and other interests, the MPCA staff has the following comments for your consideration.

Section 4.1 Contaminated Properties

- Pages 60-68 identify numerous contaminated and potentially contaminated properties along the alternative project routes and alignment options. As the DEIS correctly notes, contaminated properties can present a significant concern in the development of highway projects because of safety, cost, and liability issues. We recommend that whichever alternative and alignment option(s) are ultimately chosen for the project, you work closely with the Petroleum Brownfields Program (note: this program was incorrectly identified on page 63 of the DEIS as the Voluntary Petroleum Investigation and Cleanup Unit) and/or the Voluntary Investigation and Cleanup (VIC) Program at the MPCA to develop plans for investigating and managing any contaminated soil and/or ground water along the route. More information and contact persons for these programs can be found on the MPCA's Web site at:
  - Petroleum Brownfields Program: http://www.pca.state.mn.us/programs/vpic_p.html
  - VIC Program: http://www.pca.state.mn.us/cleanup/vic.html

Section 4.2 Wetlands

- Page 102 of the DEIS correctly identifies that a Clean Water Act Section 401 Water Quality Certification is required from the MPCA. The Section 401 Water Quality Certification ensures that the project will comply with state water quality standards, including Minn. R. 7050.0186. Any conditions required within the MPCA 401 Certificate are then incorporated into the U.S. Army Corps of Engineers 404 Permit. You can find additional information on the MPCA's 401 Certification process at www.pca.state.mn.us/water/404.html.
- Page 105 identifies the federal and state requirements governing compensatory mitigation for unavoidable impacts to wetlands. The text does not, however, identify the need for the project to also comply with MPCA rules governing wetlands, specifically Minn. R. 7050.0186. Please revise this discussion so that the Final EIS clearly identifies the MPCA requirements for wetland mitigation.

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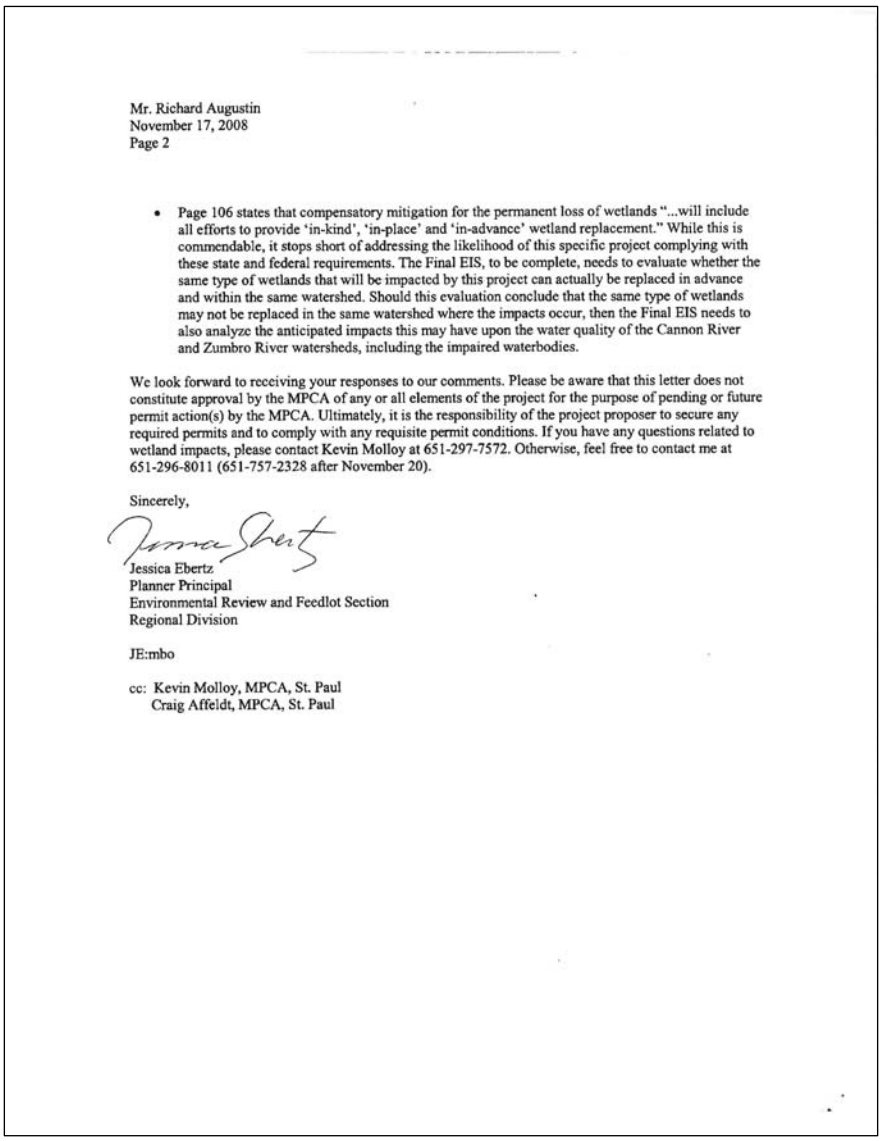
Response 1: Mn/DOT will work with the Petroleum Brownfields Program and/or the MPCA Voluntary Investigation and Cleanup Unit, as appropriate, to obtain assurances that Mn/DOT's contaminated site cleanup work and/or contaminated site acquisition will not associate it with long-term environmental liability for the contamination.

Response 2: The MPCA requirements for wetland mitigation are described in Final EIS Section 4.2 Wetlands.

Minnesota Pollution Control Agency (Page 2 of 2)



Mr. Richard Augustin
November 17, 2008
Page 2

- Page 106 states that compensatory mitigation for the permanent loss of wetlands "...will include all efforts to provide 'in-kind', 'in-place' and 'in-advance' wetland replacement." While this is commendable, it stops short of addressing the likelihood of this specific project complying with these state and federal requirements. The Final EIS, to be complete, needs to evaluate whether the same type of wetlands that will be impacted by this project can actually be replaced in advance and within the same watershed. Should this evaluation conclude that the same type of wetlands may not be replaced in the same watershed where the impacts occur, then the Final EIS needs to also analyze the anticipated impacts this may have upon the water quality of the Cannon River and Zumbro River watersheds, including the impaired waterbodies.

We look forward to receiving your responses to our comments. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions related to wetland impacts, please contact Kevin Molloy at 651-297-7572. Otherwise, feel free to contact me at 651-296-8011 (651-757-2328 after November 20).

Sincerely,

Jessica Ebertz
Planner Principal
Environmental Review and Feedlot Section
Regional Division

JE:mbo

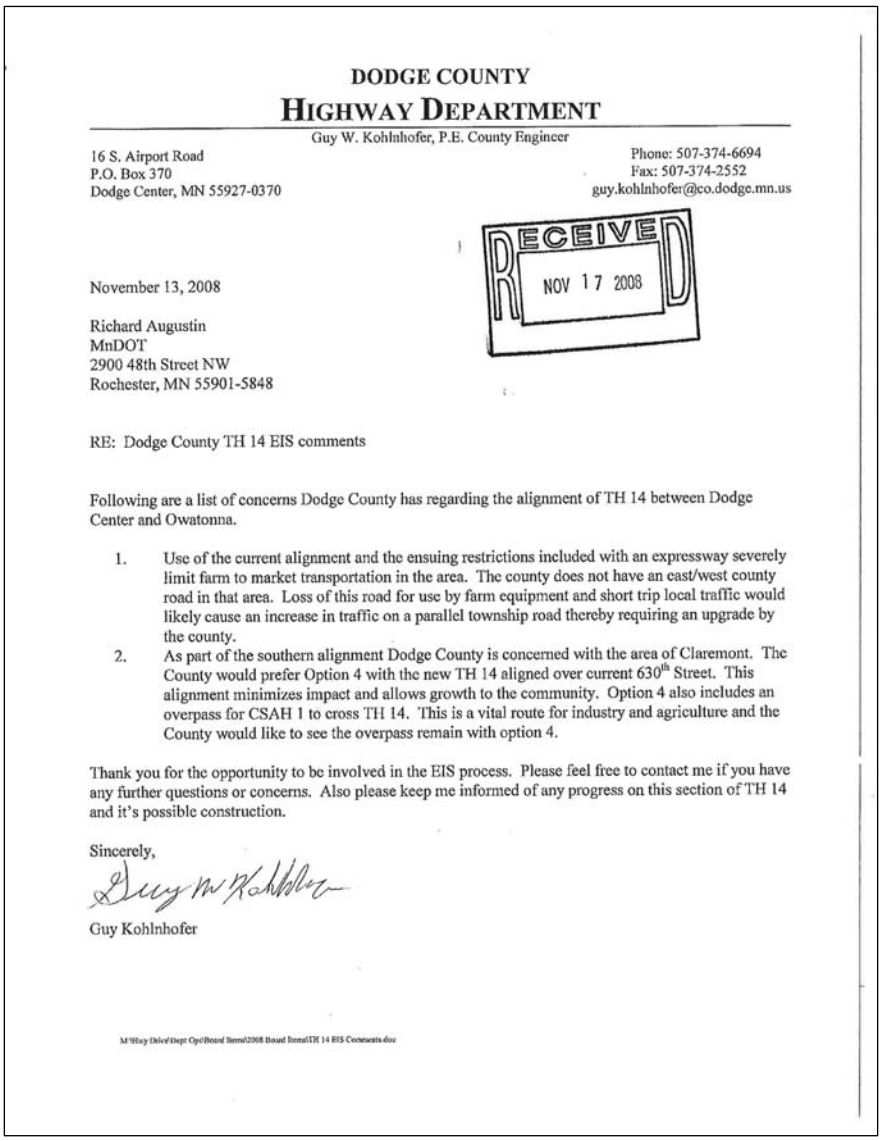
cc: Kevin Molloy, MPCA, St. Paul
Craig Affeldt, MPCA, St. Paul

3

Response 3: The specific method(s) for mitigating impacts to wetlands will be determined during the final design phase and permitting of the project (see Final EIS Section 4.2 Wetlands). Replacement of lost wetlands will be in accordance with state and federal regulatory requirements at the time of project construction. Replacement will occur prior to or concurrent with the wetland impacts, and will include all efforts to provide "in-kind", "in place" and "in-advance" wetland replacement. Furthermore, efforts will be made to replace all lost functions and values. This will likely require the use of wetland banking, which is currently the preferred method of mitigation for both the USACE and the WCA.

Mn/DOT's existing wetland bank system may provide eligible credit, to date there are existing accounts and wetland credits held by Mn/DOT within the Bank Service Area and assuming the potentially long term of the project schedule, additional bank sites could be developed over the next several years to accommodate the project needs. The specific method(s) for mitigating impacts to wetlands will be determined during the final design phase and permitting of the project. The Highway 14 Wetlands Delineation Report will be reviewed and revised as needed prior to project construction.

Dodge County (Page 1 of 1)



DODGE COUNTY
HIGHWAY DEPARTMENT
Guy W. Kohlnhofer, P.E. County Engineer

16 S. Airport Road
P.O. Box 370
Dodge Center, MN 55927-0370

Phone: 507-374-6694
Fax: 507-374-2552
guy.kohlnhofer@co.dodge.mn.us

RECEIVED
NOV 17 2008

November 13, 2008

Richard Augustin
MnDOT
2900 48th Street NW
Rochester, MN 55901-5848

RE: Dodge County TH 14 EIS comments

Following are a list of concerns Dodge County has regarding the alignment of TH 14 between Dodge Center and Owatonna.

1. Use of the current alignment and the ensuing restrictions included with an expressway severely limit farm to market transportation in the area. The county does not have an east/west county road in that area. Loss of this road for use by farm equipment and short trip local traffic would likely cause an increase in traffic on a parallel township road thereby requiring an upgrade by the county.
2. As part of the southern alignment Dodge County is concerned with the area of Claremont. The County would prefer Option 4 with the new TH 14 aligned over current 630th Street. This alignment minimizes impact and allows growth to the community. Option 4 also includes an overpass for CSAH 1 to cross TH 14. This is a vital route for industry and agriculture and the County would like to see the overpass remain with option 4.

Thank you for the opportunity to be involved in the EIS process. Please feel free to contact me if you have any further questions or concerns. Also please keep me informed of any progress on this section of TH 14 and it's possible construction.

Sincerely,

Guy Kohlnhofer

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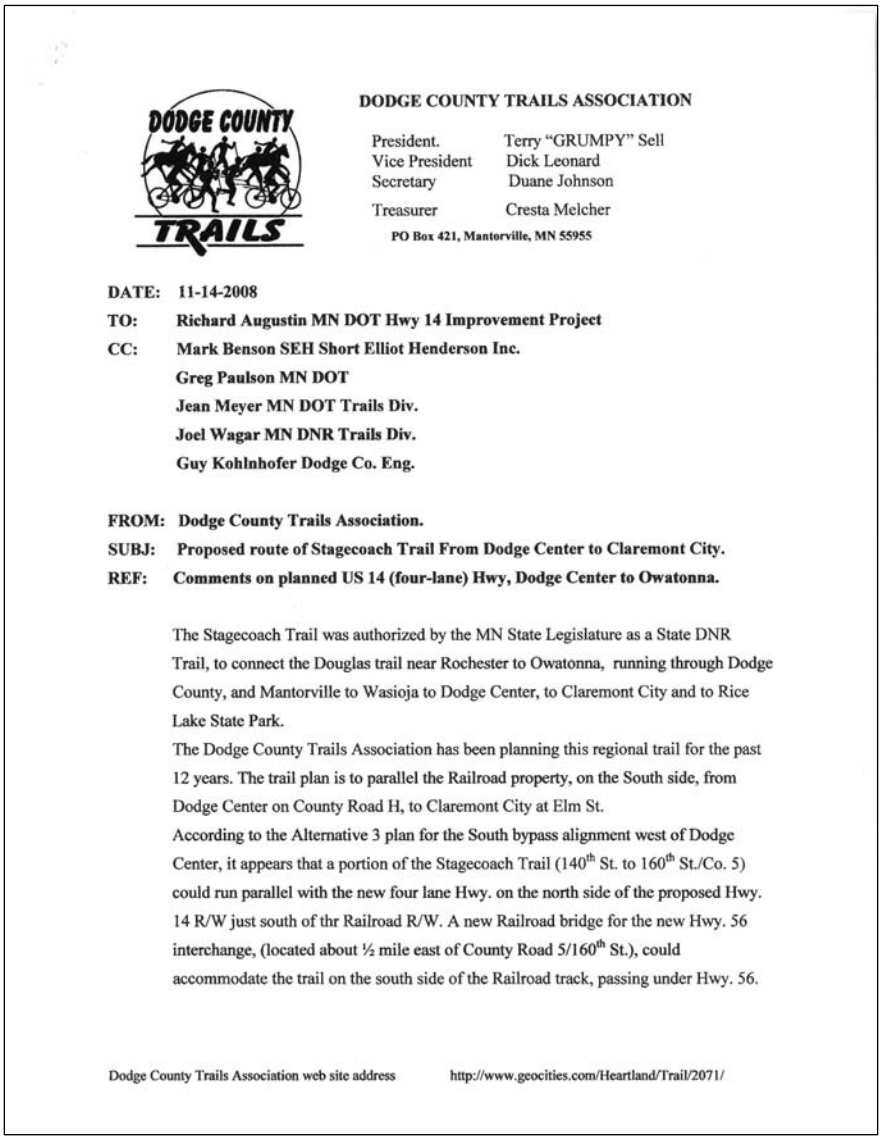
Response 1: Based on the comments and supporting analysis in the Draft EIS, Alternative 3 – South Bypass Alignment with Claremont Bypass Option 4 was identified as the preferred alternative. Therefore, the impacts described under this item would not occur with the preferred alternative.

Dodge County Trails Association (Page 1 of 4)



DODGE COUNTY TRAILS ASSOCIATION

President. Terry "GRUMPY" Sell
Vice President Dick Leonard
Secretary Duane Johnson
Treasurer Cresta Melcher

PO Box 421, Mantorville, MN 55955

DATE: 11-14-2008
TO: Richard Augustin MN DOT Hwy 14 Improvement Project
CC: Mark Benson SEH Short Elliot Henderson Inc.
Greg Paulson MN DOT
Jean Meyer MN DOT Trails Div.
Joel Wagar MN DNR Trails Div.
Guy Kohlnhofer Dodge Co. Eng.

FROM: Dodge County Trails Association.
SUBJ: Proposed route of Stagecoach Trail From Dodge Center to Claremont City.
REF: Comments on planned US 14 (four-lane) Hwy, Dodge Center to Owatonna.

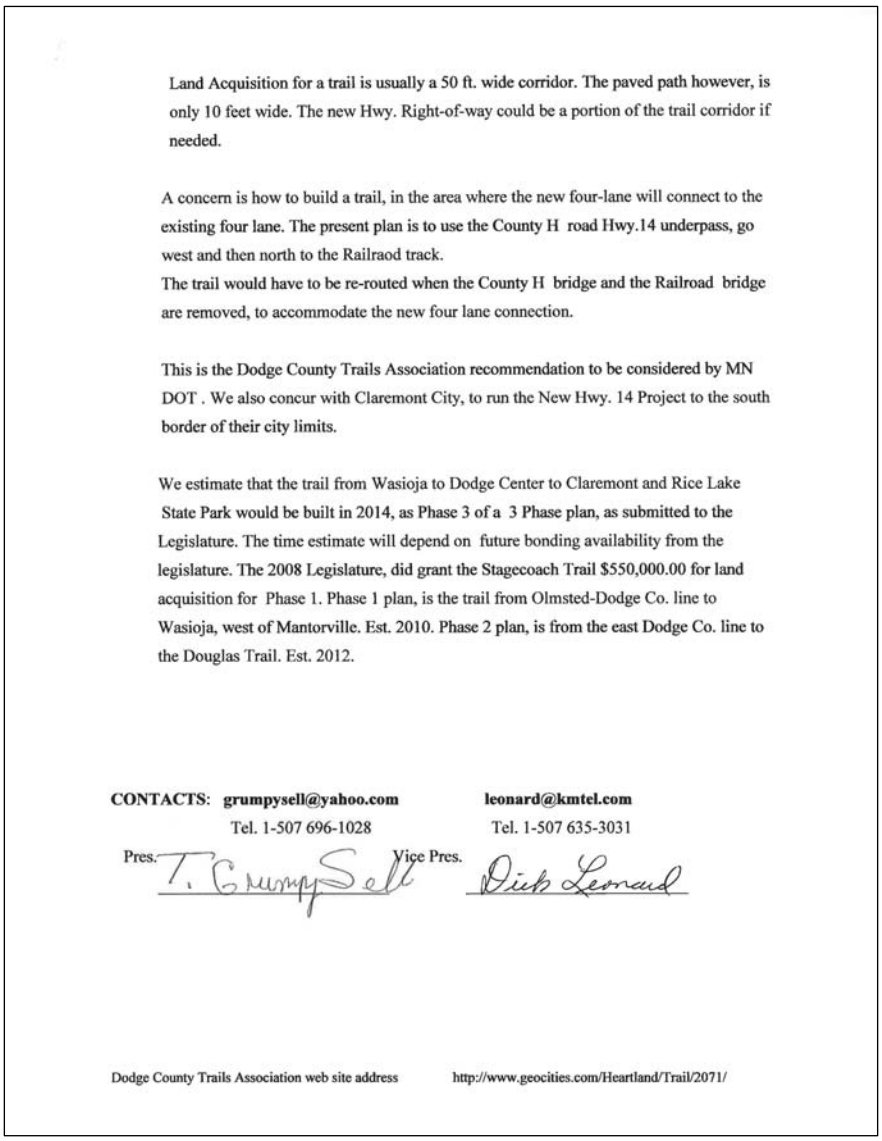
The Stagecoach Trail was authorized by the MN State Legislature as a State DNR Trail, to connect the Douglas trail near Rochester to Owatonna, running through Dodge County, and Mantorville to Wasioja to Dodge Center, to Claremont City and to Rice Lake State Park.

The Dodge County Trails Association has been planning this regional trail for the past 12 years. The trail plan is to parallel the Railroad property, on the South side, from Dodge Center on County Road H, to Claremont City at Elm St.

According to the Alternative 3 plan for the South bypass alignment west of Dodge Center, it appears that a portion of the Stagecoach Trail (140th St. to 160th St./Co. 5) could run parallel with the new four lane Hwy. on the north side of the proposed Hwy. 14 R/W just south of thr Railroad R/W. A new Railroad bridge for the new Hwy. 56 interchange, (located about ½ mile east of County Road 5/160th St.), could accommodate the trail on the south side of the Railroad track, passing under Hwy. 56.

Dodge County Trails Association web site address http://www.geocities.com/Heartland/Trail/2071/

Dodge County Trails Association (Page 2 of 4)



Land Acquisition for a trail is usually a 50 ft. wide corridor. The paved path however, is only 10 feet wide. The new Hwy. Right-of-way could be a portion of the trail corridor if needed.

A concern is how to build a trail, in the area where the new four-lane will connect to the existing four lane. The present plan is to use the County H road Hwy.14 underpass, go west and then north to the Railraod track.
The trail would have to be re-routed when the County H bridge and the Railroad bridge are removed, to accommodate the new four lane connection.

This is the Dodge County Trails Association recommendation to be considered by MN DOT . We also concur with Claremont City, to run the New Hwy. 14 Project to the south border of their city limits.

We estimate that the trail from Wasioja to Dodge Center to Claremont and Rice Lake State Park would be built in 2014, as Phase 3 of a 3 Phase plan, as submitted to the Legislature. The time estimate will depend on future bonding availability from the legislature. The 2008 Legislature, did grant the Stagecoach Trail $550,000.00 for land acquisition for Phase 1. Phase 1 plan, is the trail from Olmsted-Dodge Co. line to Wasioja, west of Mantorville. Est. 2010. Phase 2 plan, is from the east Dodge Co. line to the Douglas Trail. Est. 2012.

CONTACTS: **grumpysell@yahoo.com** Tel. 1-507 696-1028 Pres. T. Grumpsell

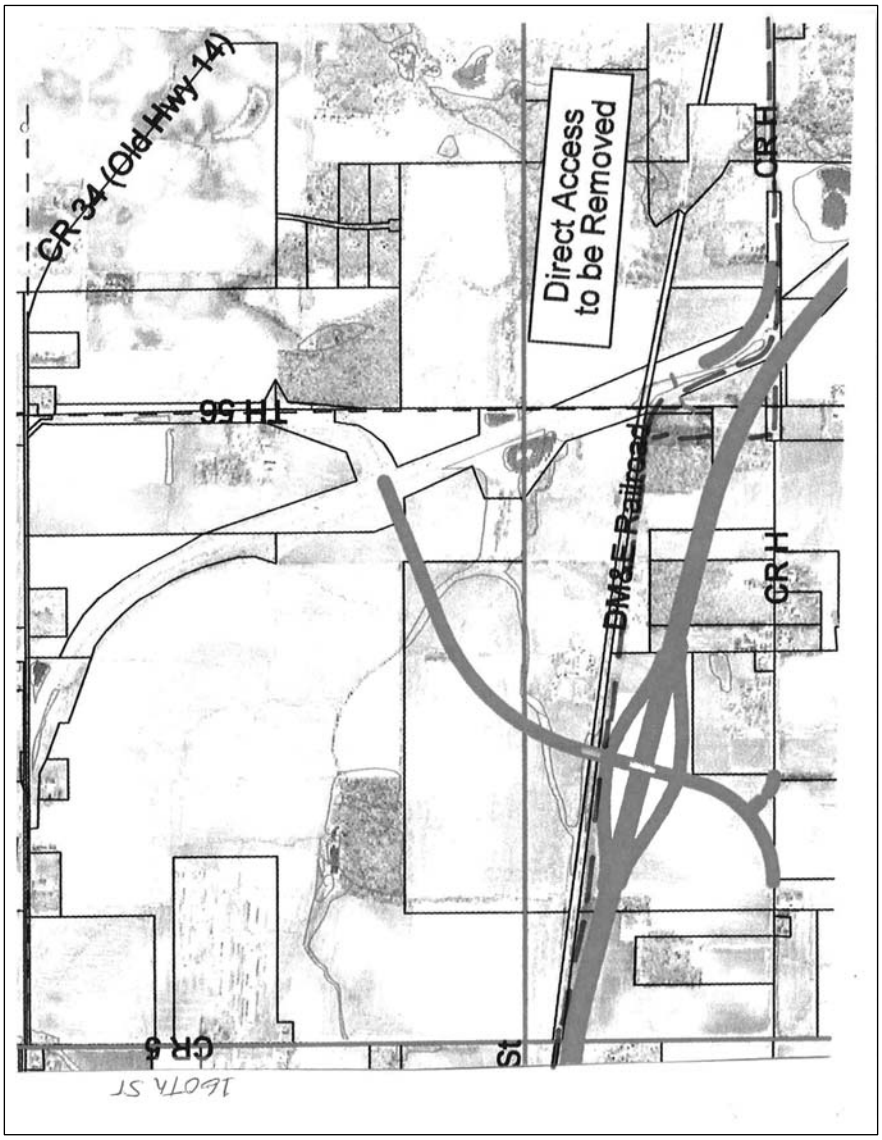
leonard@kmtel.com Tel. 1-507 635-3031 Vice Pres. Dick Leonard

Dodge County Trails Association web site address http://www.geocities.com/Heartland/Trail/2071/

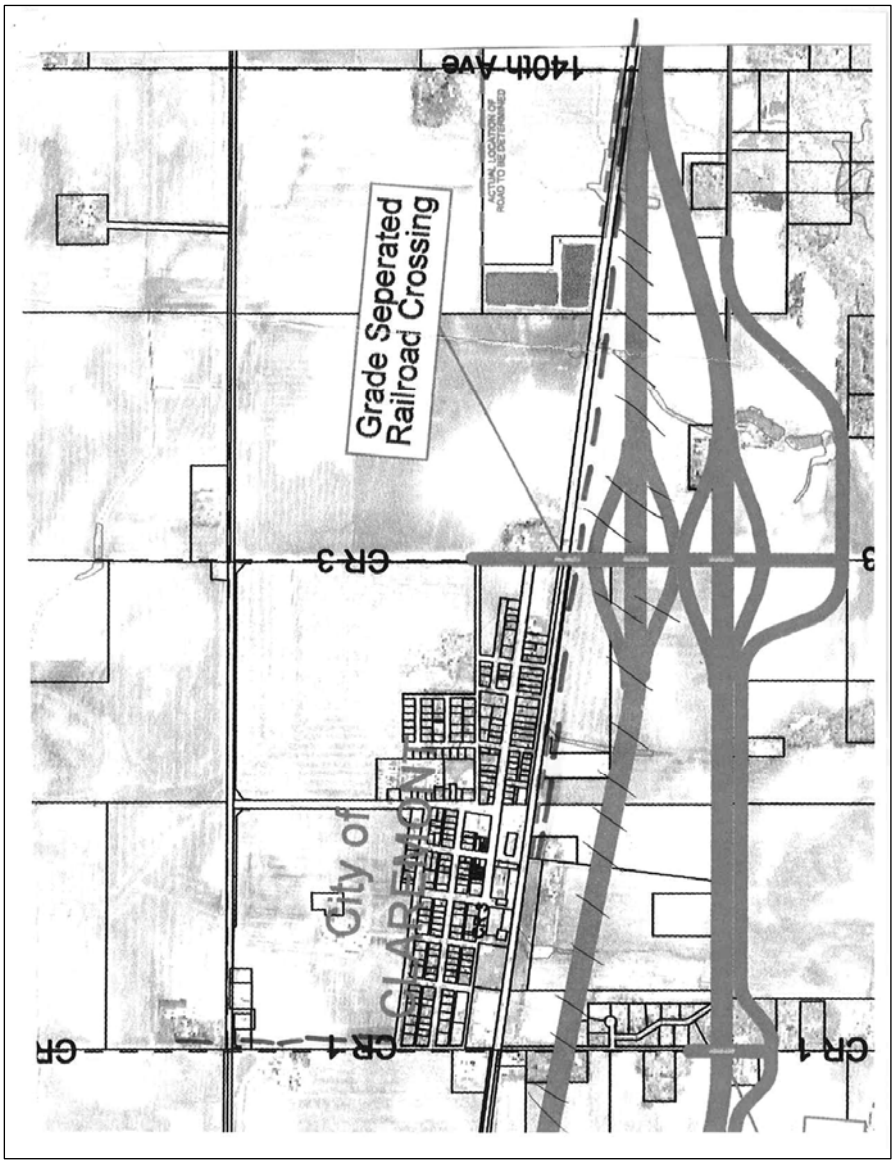
1

Response 1: The planning efforts of the Dodge County Trails Association, as it relates to the possible extension of the Stagecoach regional trail through the eastern third of the project area, is acknowledged in the Final EIS. Currently, the Association's preferred alignment for the trail would parallel the DM&E rail line from Dodge Center to Claremont. The preliminary design of the highway corridor was completed in a manner that would not preclude the future construction of a trail by a third party along the south side of the railroad tracks.

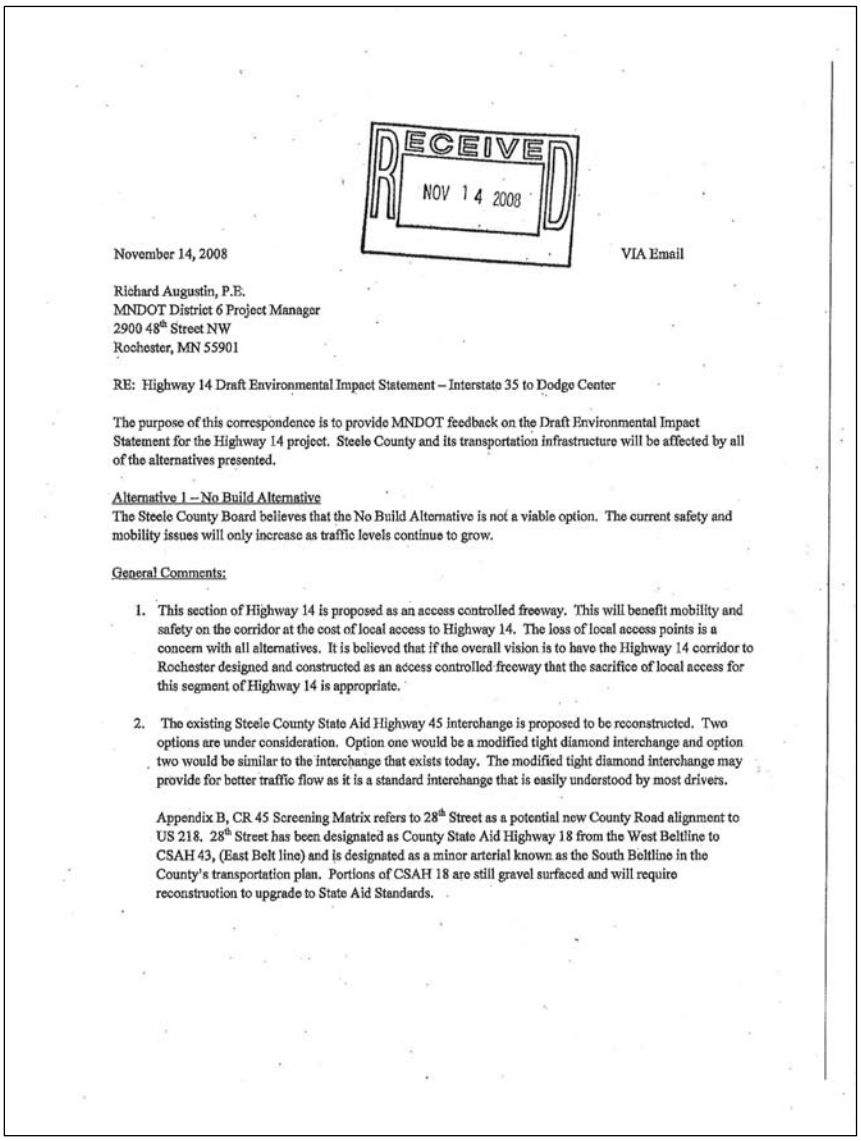
Dodge County Trails Association (Page 3 of 4)



Dodge County Trails Association (Page 4 of 4)



Steele County (Page 1 of 2)



RECEIVED
NOV 14 2008

November 14, 2008 VIA Email

Richard Augustin, P.E.
MNDOT District 6 Project Manager
2900 48th Street NW
Rochester, MN 55901

RE: Highway 14 Draft Environmental Impact Statement – Interstate 35 to Dodge Center

The purpose of this correspondence is to provide MNDOT feedback on the Draft Environmental Impact Statement for the Highway 14 project. Steele County and its transportation infrastructure will be affected by all of the alternatives presented.

Alternative 1 – No Build Alternative
The Steele County Board believes that the No Build Alternative is not a viable option. The current safety and mobility issues will only increase as traffic levels continue to grow.

General Comments:

1. This section of Highway 14 is proposed as an access controlled freeway. This will benefit mobility and safety on the corridor at the cost of local access to Highway 14. The loss of local access points is a concern with all alternatives. It is believed that if the overall vision is to have the Highway 14 corridor to Rochester designed and constructed as an access controlled freeway that the sacrifice of local access for this segment of Highway 14 is appropriate.

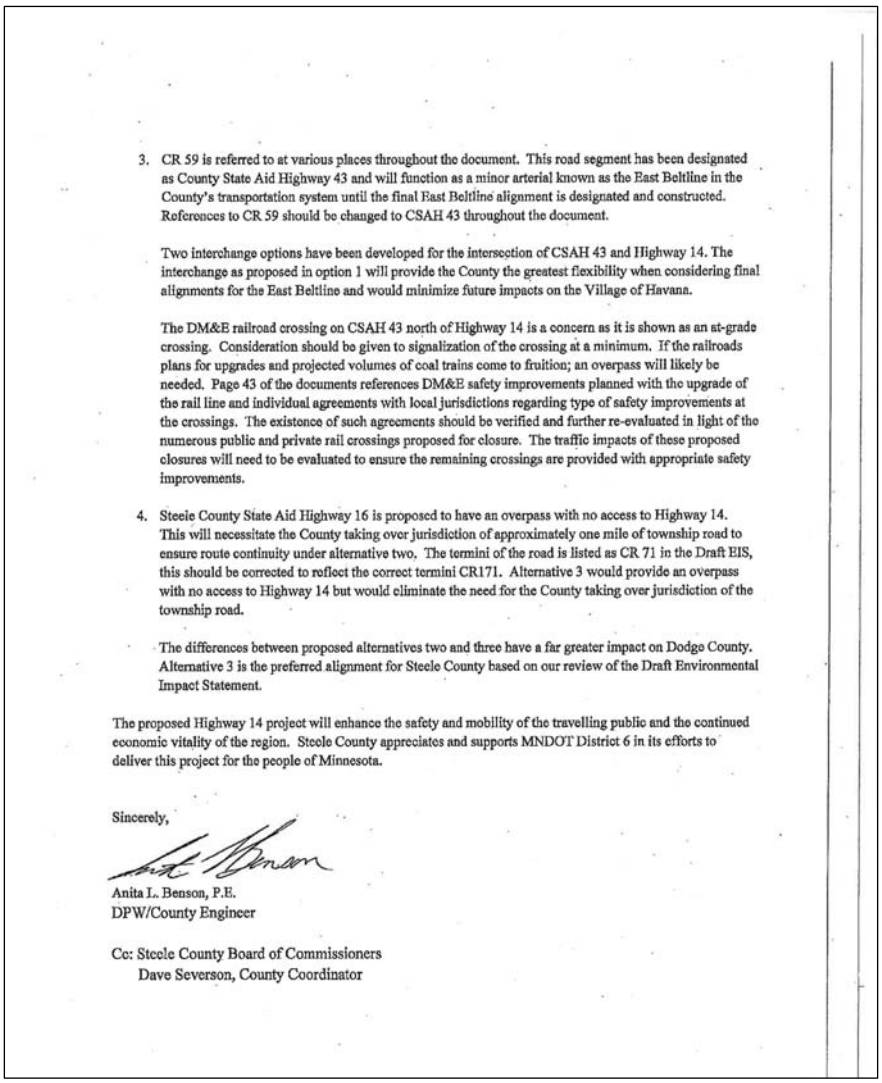
2. The existing Steele County State Aid Highway 45 interchange is proposed to be reconstructed. Two options are under consideration. Option one would be a modified tight diamond interchange and option two would be similar to the interchange that exists today. The modified tight diamond interchange may provide for better traffic flow as it is a standard interchange that is easily understood by most drivers.

   Appendix B, CR 45 Screening Matrix refers to 28th Street as a potential new County Road alignment to US 218. 28th Street has been designated as County State Aid Highway 18 from the West Beltline to CSAH 43, (East Belt line) and is designated as a minor arterial known as the South Beltline in the County's transportation plan. Portions of CSAH 18 are still gravel surfaced and will require reconstruction to upgrade to State Aid Standards.

1

Response 1: Since the publication of the Draft EIS, the project team has further refined the Steele County Road 45 area interchange option and associated roadway design through additional public and agency coordination (i.e., Steele County and the City of Owatonna) to minimize the impact of the proposed improvement. Detailed traffic investigations for the preliminary design of the preferred alternative, including the proposed Steele County Road 45 interchange, is discussed in Final EIS Section 3.2 Traffic Analysis. Coordination and cooperation with Steele County and the City of Owatonna will continue to occur during the final design phase of the project.

Steele County (Page 2 of 2)



3. CR 59 is referred to at various places throughout the document. This road segment has been designated as County State Aid Highway 43 and will function as a minor arterial known as the East Beltline in the County's transportation system until the final East Beltline alignment is designated and constructed. References to CR 59 should be changed to CSAH 43 throughout the document.

Two interchange options have been developed for the intersection of CSAH 43 and Highway 14. The interchange as proposed in option 1 will provide the County the greatest flexibility when considering final alignments for the East Beltline and would minimize future impacts on the Village of Havana.

The DM&E railroad crossing on CSAH 43 north of Highway 14 is a concern as it is shown as an at-grade crossing. Consideration should be given to signalization of the crossing at a minimum. If the railroads plans for upgrades and projected volumes of coal trains come to fruition; an overpass will likely be needed. Page 43 of the documents references DM&E safety improvements planned with the upgrade of the rail line and individual agreements with local jurisdictions regarding type of safety improvements at the crossings. The existence of such agreements should be verified and further re-evaluated in light of the numerous public and private rail crossings proposed for closure. The traffic impacts of these proposed closures will need to be evaluated to ensure the remaining crossings are provided with appropriate safety improvements.

4. Steele County State Aid Highway 16 is proposed to have an overpass with no access to Highway 14. This will necessitate the County taking over jurisdiction of approximately one mile of township road to ensure route continuity under alternative two. The termini of the road is listed as CR 71 in the Draft EIS, this should be corrected to reflect the correct termini CR171. Alternative 3 would provide an overpass with no access to Highway 14 but would eliminate the need for the County taking over jurisdiction of the township road.

The differences between proposed alternatives two and three have a far greater impact on Dodge County. Alternative 3 is the preferred alignment for Steele County based on our review of the Draft Environmental Impact Statement.

The proposed Highway 14 project will enhance the safety and mobility of the travelling public and the continued economic vitality of the region. Steele County appreciates and supports MNDOT District 6 in its efforts to deliver this project for the people of Minnesota.

Sincerely,

Anita L. Benson, P.E.
DPW/County Engineer

Cc: Steele County Board of Commissioners
Dave Severson, County Coordinator

2

3

4

Response 2: References to County Road 59 have been replaced with Steele County Road 43 in the Final EIS.

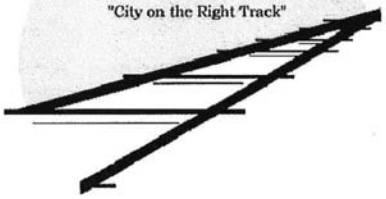
Response 3: Since the publication of the Draft EIS, an analysis has been conducted to determine the future exposure rate for the proposed Steele County Road 43/DM&E Railroad crossing in Havana Township. The results of the study are provided in a technical memorandum entitled, "County Road 43/DM&E At-Grade Crossing – Exposure Rate" (dated 3/13/09), and is available for review at the Mn/DOT District 6 Offices in Rochester, Minnesota. This memorandum was shared with Steele County. Based on the results of this analysis, the future conditions do not warrant the need for a grade-separated crossing (overpass) and that installation of improved signage, flashing warning lights, and control gates across the lanes of traffic are the appropriate safety improvements for this crossing. Mn/DOT will continue to coordinate with Steele County, Havana Township, and the DM&E during the final design phase to determine the future configuration of the roadways impacted by the interchange and county road realignment.

Response 4: Based on the comments and supporting analysis in the Draft EIS, Alternative 3 – South Bypass Alignment was identified as the preferred alternative. Therefore, Steele County will not need to take over jurisdiction of this segment of township road.

City of Claremont (Page 1 of 7)

Highway 14 Improvement Project
Draft EIS Official Comments

Claremont Minnesota
"City on the Right Track"



November 2008

City of Claremont (Page 2 of 7)

About the Highway 14 Improvement Project from Owatonna to Dodge Center

Members of the Claremont City Council, Economic Development Authority, Planning and Zoning Commission and City staff have been active participants in Mn/DOT's study of the Highway 14 Improvement Project since 2006. City officials have served on the Project Advisory Committee (PAC), attended/hosted public meetings and have provided comment to Mn/DOT about the project over the course of the study.

The Claremont City Council and Council Committees believes the alignment of US Highway 14 be defined as soon as possible. The City's growth, and potential for growth, will be greatly affected by the location of US 14 and the related interchange.

Alternative 1: No-Build Alternative

The City of Claremont feels the no-build alternative is not a suitable solution for the Highway 14 Project.

Alternative 2: Existing Alignment

The City of Claremont concurs with the EIS Draft that an interchange at County Road 1 would be the best solution for the existing alignment. The alignment would provide direct access to the Al-Corn Clean Fuel plant and would foster development greater than other alignments suggested in past EIS drafts.

Alternative 3, Claremont Option 2: South Bypass Alignment

The City of Claremont **STRONGLY OPPOSES** alternative 3, option 2 as a suitable solution for the following reasons:

- The alignment dissects the southern portion of the City between the railroad and 630th Street. This design consumes a lot of developable land and it would also limit the City's ability to develop the southern portion of town.
- The alignment would cutoff the Oakview subdivision (the southwest corner of the City) from the rest town.
- The alignment only provides for one access point to Claremont from the south; the interchange at County Road 3.
    - It hinders Oakview's residents of access to Claremont.
    - It hinders truck traffic's access to the Al-Corn Clean Fuel plant.
- Our current central business district is on Front Street. The alignment would create a turnback situation along Front Street which would negatively impact the City's businesses.

The only positive the aspect of the design that we recognize is the grade separated railroad crossing at County Road 3. Granted, grade separation is desirable and creates a safer passage over the railroad, but the negative impacts listed above out-weigh the design of grade separation.

City of Claremont (Page 3 of 7)

Alternative 3, Claremont Option 4: South Bypass Alignment

The City of Claremont favors Alternative 3, Option 4 as the best possible solution for the Highway 14 Project. The City Council, Economic Development Authority and Planning and Zoning Commission all agree this alignment would provide the greatest potential for growth; the City envisions the best potential for development along the railroad.

In addition, the alignment would:

- Keep open three rail crossings at County Road 1, Elm Street and County Road 3.
- Allow for highway crossings at County Road 1 and County Road 3.
    - The overpass at County Road 1 still would allow Oakview residents and truck traffic for Al-Corn easy access to the City of Claremont.
- The alignment would extend US 14 to the City line and would provide the most developable space of all the proposed options.
- The proposed alignment suggests only one developed parcel within City limits would be affected.
    - This option would have the least negative affect on the City's current tax base.

The City would also like to note the Council passed Resolution 08 – 24 at our November 10, 2008 regular Council Meeting selecting Alternative 3, Option 4, as the City of Claremont's **PREFERRED ROUTE** for the Highway 14 Improvement Project. In addition, the City has been updating its Comprehensive Plan during 2008. One of the elements of updating the Plan includes a Land Use Plan. The Land Use Plan was designed around the south bypass alignment, Alternative 3, Option 4.

The City of Claremont recognizes there is not funding for the Highway 14 Improvement project from Owatonna to Dodge Center at this time. The City is under the impression that any improvement will not take place for a number of years. Between now and when funding becomes available for the project, the City envisions significant growth. To plan the future growth, the City is in the process of drafting and proposing an annexation agreement between the City of Claremont and Claremont Township.

In 2008, the City of Claremont has become very proactive in an attempt to attract new industries to town. To accommodate industrial growth, the City has identified a one square mile section west of Claremont which is included in the proposed annexation agreement. As new industries are brought to Claremont, we envision parcels in the section will be annexed into the City and the land developed accordingly. The City of Claremont is requesting an additional interchange along 630th Street west of the City and Dodge County Road 1 to accommodate the growth (see included map for location).

The City of Claremont would like to thank Mn/DOT District 6 for the opportunity to make an official comment on the Highway 14 Improvement project. With these comments the City is also submitting copies of Council Resolution 08 – 24, our Land Use Plan and another map showing land uses with Alternative 3, Option 4 and potential

City of Claremont (Page 4 of 7)

growth areas identified in a proposed Annexation Agreement between the City of Claremont and Claremont Township.

Please direct any questions concerning Claremont's official comments about the Highway 14 project to:

Bill Goldy
Claremont City Administrator
PO Box 235
Claremont, MN 55924
507-528-2137
claremontcity@frontiernet.net

Response: Comments Noted.

City of Claremont (Page 5 of 7)

RESOLUTION 08 – 24

RESOLUTION SELECTING ALTERNATIVE 3, OPTION 4, AS THE CITY OF CLAREMONT'S PREFERRED ROUTE FOR THE HIGHWAY 14 IMPROVEMENT PROJECT

WHEREAS, the Claremont City Council, Economic Development Authority and Planning and Zoning Commission have discussed the Highway 14 Project and its potential impact on Claremont's economic growth; and

WHEREAS, the growth of the City will be greatly affected by the location of US Highway 14; and

WHEREAS, the City Council and the City's committees concur Alternative 3, Option 2 is not a desirable option because it would limit the City's ability to grow its economy in the future; and

WHEREAS, the Council and its committees envision Alternative 3, Option 4, of the southern bypass for the project would enhance the City's ability to foster economic growth; and

WHEREAS, the Council believes that an additional bypass may be needed along Alternative 3, Option 4 to make the southwest part of the community viable for industrial development (see attached map).

WHEREAS, the City has designed its land use plan around Alternative 3, Option 4, of MnDOT's Draft EIS for the Highway 14 Project;

NOW, THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF CLAREMONT that the City selects Alternative 3, Option 4, as its preferred route for the Highway 14 Improvement Project.

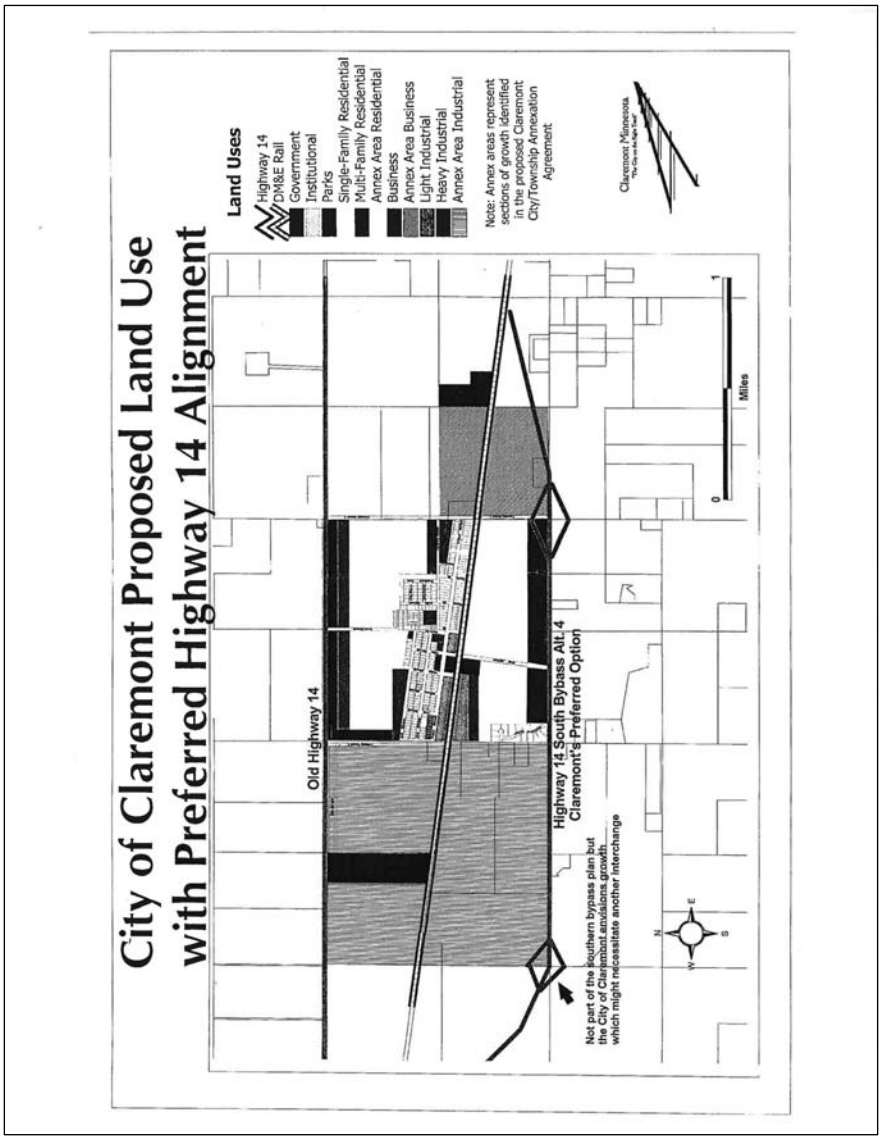
Passed by a unanimous vote by the Claremont City Council this 10th day of November, 2008.

Russ Lucas, Mayor

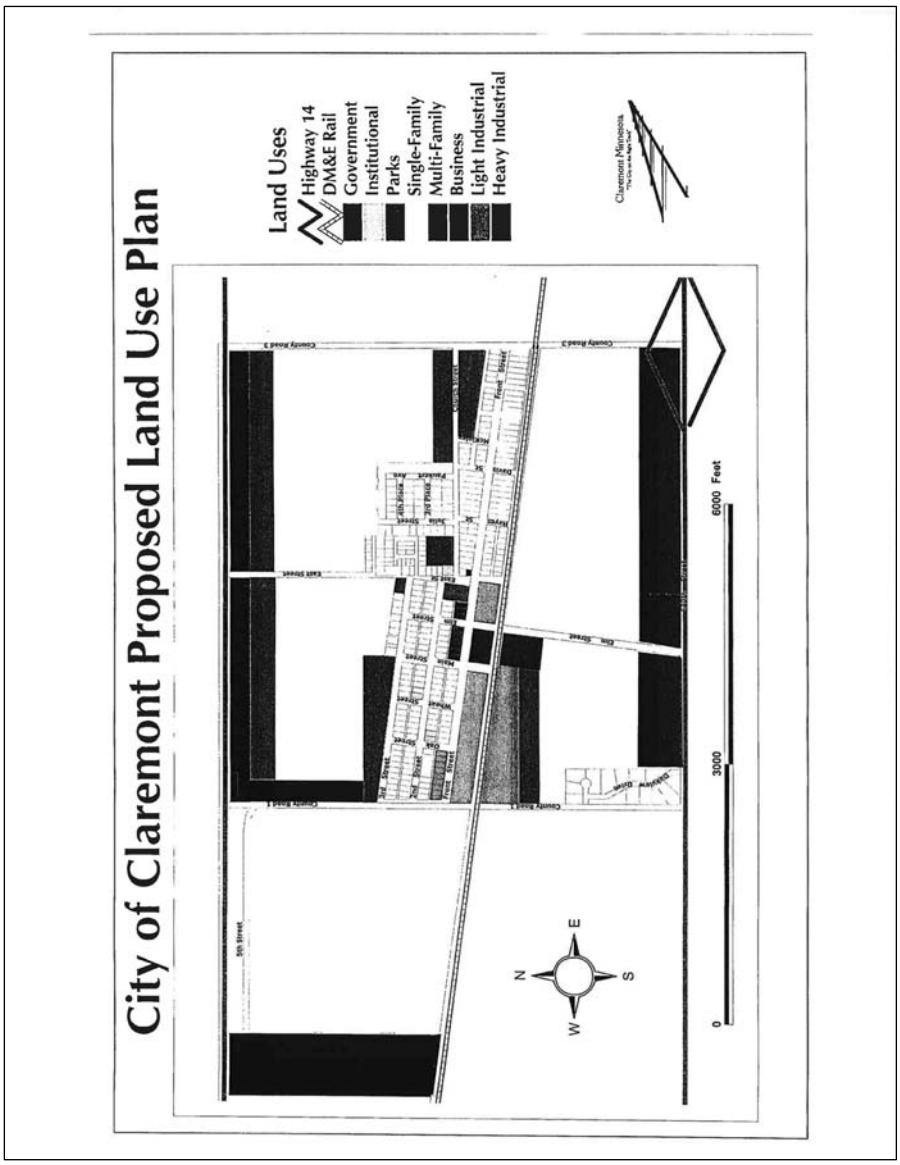
ATTEST:

Elizabeth Sorg, City Clerk/Treasurer
(SEAL)

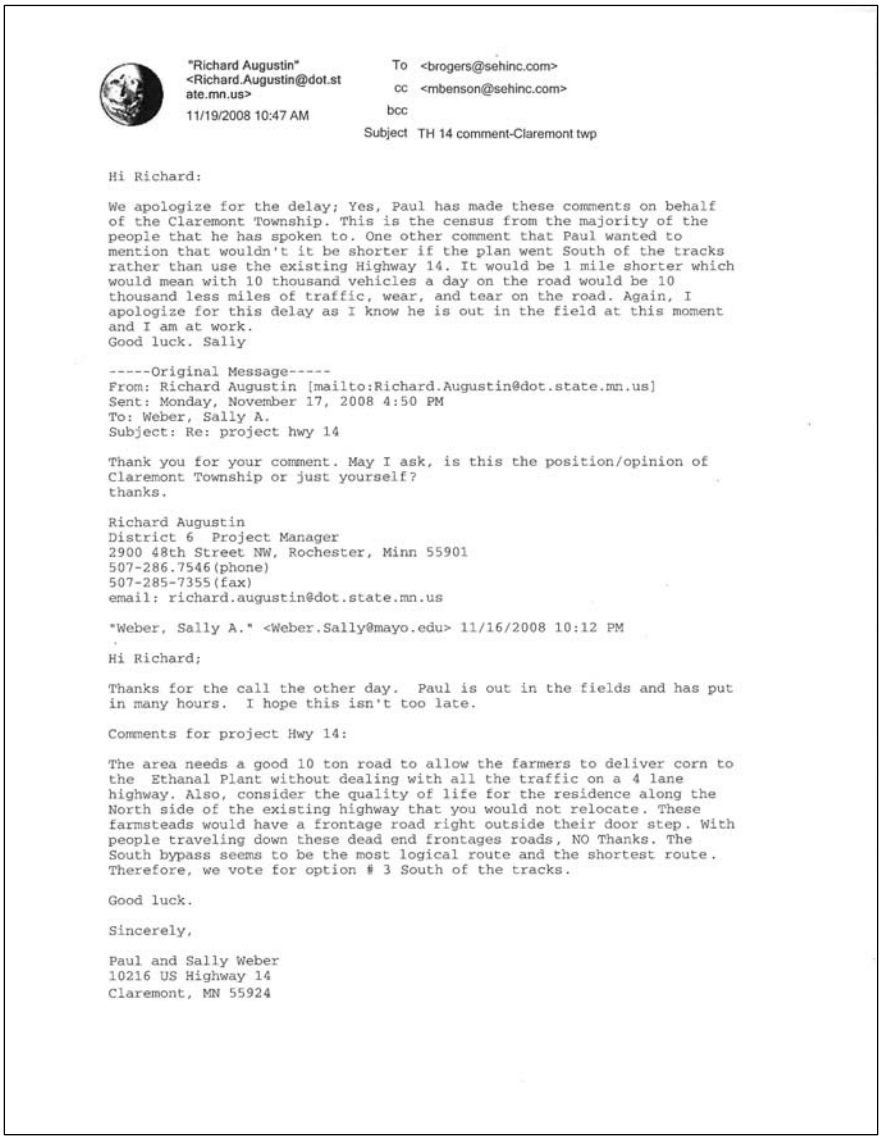
City of Claremont (Page 6 of 7)



City of Claremont (Page 7 of 7)



Claremont Township (Page 1 of 1)



"Richard Augustin" <Richard.Augustin@dot.state.mn.us>
11/19/2008 10:47 AM

To <brogers@sehinc.com>
cc <mbenson@sehinc.com>
bcc
Subject TH 14 comment-Claremont twp

Hi Richard:

We apologize for the delay; Yes, Paul has made these comments on behalf of the Claremont Township. This is the census from the majority of the people that he has spoken to. One other comment that Paul wanted to mention that wouldn't it be shorter if the plan went South of the tracks rather than use the existing Highway 14. It would be 1 mile shorter which would mean with 10 thousand vehicles a day on the road would be 10 thousand less miles of traffic, wear, and tear on the road. Again, I apologize for this delay as I know he is out in the field at this moment and I am at work.
Good luck. Sally

-----Original Message-----
From: Richard Augustin [mailto:Richard.Augustin@dot.state.mn.us]
Sent: Monday, November 17, 2008 4:50 PM
To: Weber, Sally A.
Subject: Re: project hwy 14

Thank you for your comment. May I ask, is this the position/opinion of Claremont Township or just yourself?
thanks.

Richard Augustin
District 6 Project Manager
2900 48th Street NW, Rochester, Minn 55901
507-286.7546(phone)
507-285-7355(fax)
email: richard.augustin@dot.state.mn.us

"Weber, Sally A." <Weber.Sally@mayo.edu> 11/16/2008 10:12 PM

Hi Richard;

Thanks for the call the other day. Paul is out in the fields and has put in many hours. I hope this isn't too late.

Comments for project Hwy 14:

The area needs a good 10 ton road to allow the farmers to deliver corn to the Ethanal Plant without dealing with all the traffic on a 4 lane highway. Also, consider the quality of life for the residence along the North side of the existing highway that you would not relocate. These farmsteads would have a frontage road right outside their door step. With people traveling down these dead end frontages roads, NO Thanks. The South bypass seems to be the most logical route and the shortest route. Therefore, we vote for option # 3 South of the tracks.

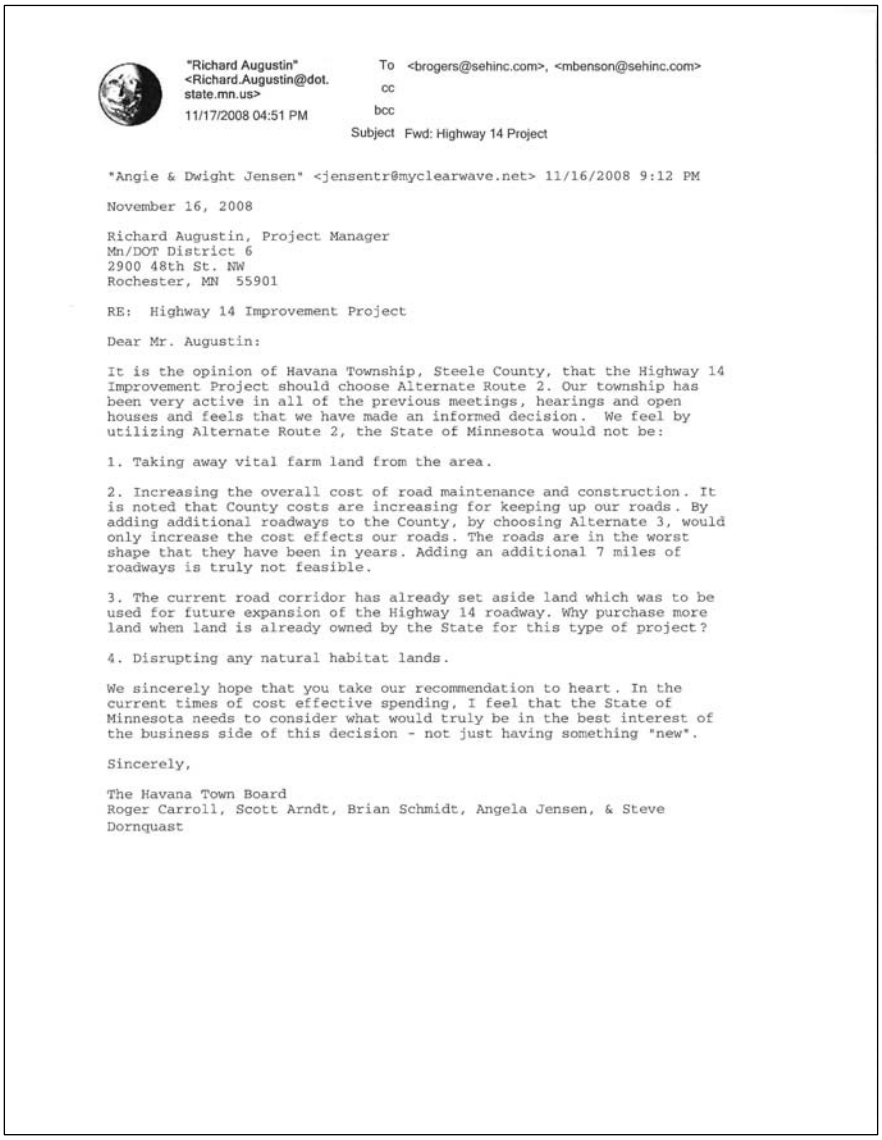
Good luck.

Sincerely,

Paul and Sally Weber
10216 US Highway 14
Claremont, MN 55924

Response: Comments Noted.

Havana Township (Page 1 of 1)



"Richard Augustin" <Richard.Augustin@dot.state.mn.us>
11/17/2008 04:51 PM

To <brogers@sehinc.com>, <mbenson@sehinc.com>
cc
bcc
Subject Fwd: Highway 14 Project

"Angie & Dwight Jensen" <jensentr@myclearwave.net> 11/16/2008 9:12 PM

November 16, 2008

Richard Augustin, Project Manager
Mn/DOT District 6
2900 48th St. NW
Rochester, MN 55901

RE: Highway 14 Improvement Project

Dear Mr. Augustin:

It is the opinion of Havana Township, Steele County, that the Highway 14 Improvement Project should choose Alternate Route 2. Our township has been very active in all of the previous meetings, hearings and open houses and feels that we have made an informed decision. We feel by utilizing Alternate Route 2, the State of Minnesota would not be:

1. Taking away vital farm land from the area.

2. Increasing the overall cost of road maintenance and construction. It is noted that County costs are increasing for keeping up our roads. By adding additional roadways to the County, by choosing Alternate 3, would only increase the cost effects our roads. The roads are in the worst shape that they have been in years. Adding an additional 7 miles of roadways is truly not feasible.

3. The current road corridor has already set aside land which was to be used for future expansion of the Highway 14 roadway. Why purchase more land when land is already owned by the State for this type of project?

4. Disrupting any natural habitat lands.

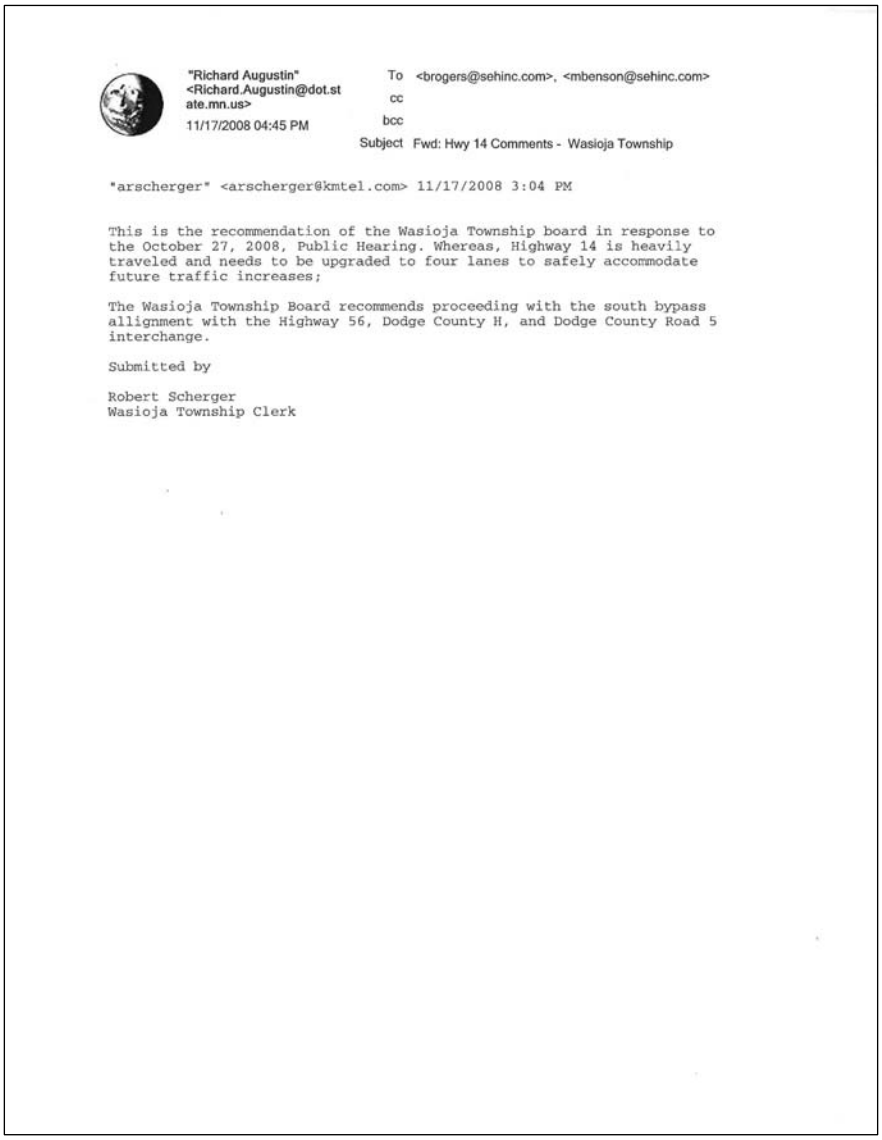
We sincerely hope that you take our recommendation to heart. In the current times of cost effective spending, I feel that the State of Minnesota needs to consider what would truly be in the best interest of the business side of this decision - not just having something "new".

Sincerely,

The Havana Town Board
Roger Carroll, Scott Arndt, Brian Schmidt, Angela Jensen, & Steve Dornquast

Response: Comments Noted.

Wasioja Township (Page 1 of 1)



"Richard Augustin" <Richard.Augustin@dot.state.mn.us>
11/17/2008 04:45 PM

To <brogers@sehinc.com>, <mbenson@sehinc.com>
cc
bcc
Subject Fwd: Hwy 14 Comments - Wasioja Township

"arscherger" <arscherger@kmtel.com> 11/17/2008 3:04 PM

This is the recommendation of the Wasioja Township board in response to the October 27, 2008, Public Hearing. Whereas, Highway 14 is heavily traveled and needs to be upgraded to four lanes to safely accommodate future traffic increases;

The Wasioja Township Board recommends proceeding with the south bypass allignment with the Highway 56, Dodge County H, and Dodge County Road 5 interchange.

Submitted by

Robert Scherger
Wasioja Township Clerk

Response: Comments Noted.

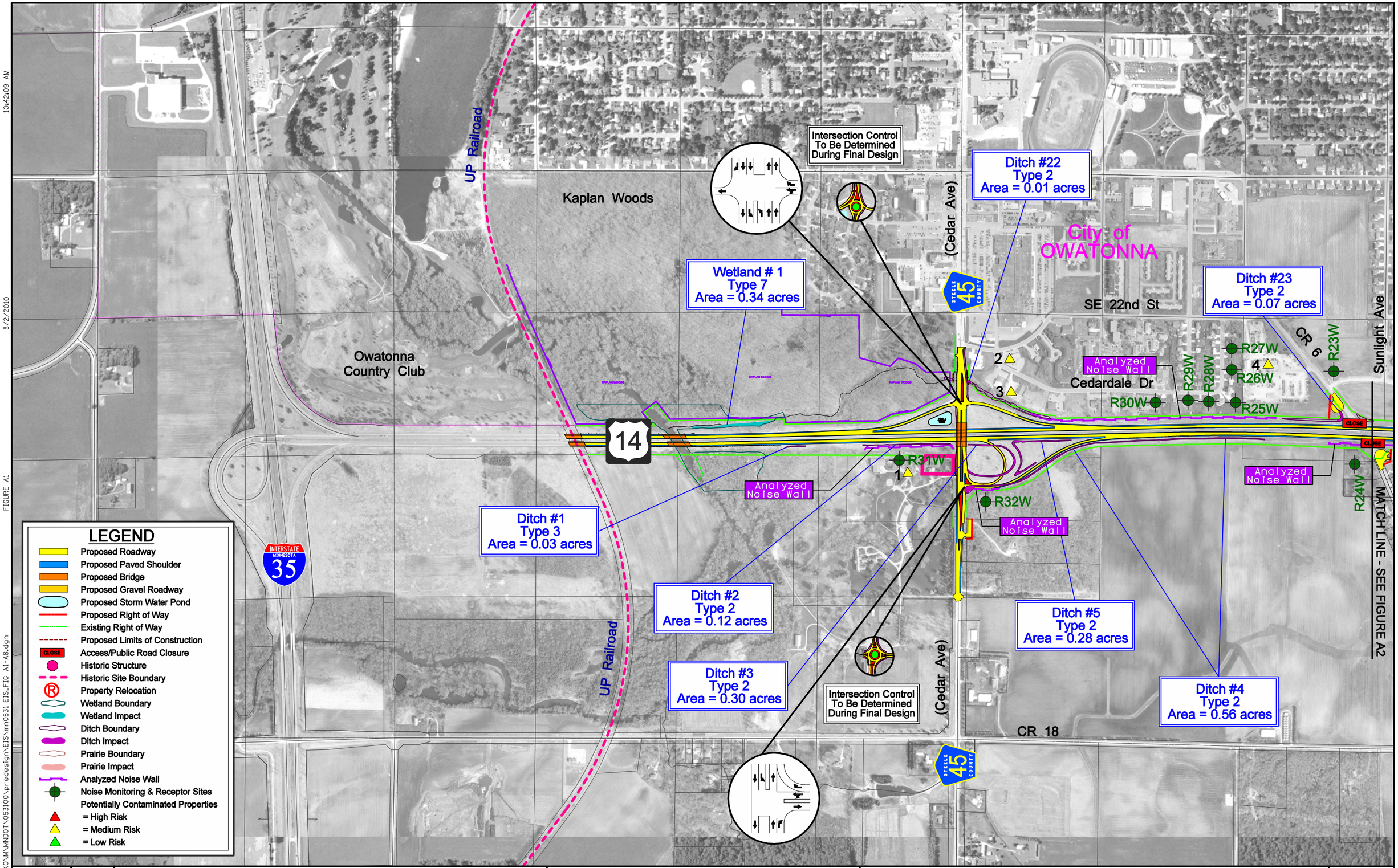
9.0 PREPARERS

Agency/Organization and Name	Final Environmental Impact Statement Responsibility
Federal Highway Administration	
Phil Forst and Cheryl Martin	Review of Final EIS; Assure Compliance with Federal Regulations Including SAFETEA-LU
Minnesota Department of Transportation – District 6	
Heather Lukes	Mn/DOT District 6 Project Manager
Greg Paulson	Review of Final EIS, Special Studies, Technical Memoranda
Mike Kempinger	Review of Final EIS, Special Studies, Technical Memoranda
Richard Augustin	Review of Final EIS, Special Studies, Technical Memoranda
Chad Hanson	Review of Project Purpose & Need, Traffic Analysis, and Forecasting
Minnesota Department of Transportation – Central Office	
Jennie Ross	Final EIS review; Assure Compliance with Mn/DOT Guidance/Procedures
Jason Alcott	Section 7 (Federal Threatened & Endangered Species); Wildlife
Karlene French	Contaminated Properties
Liz Abel	Cultural Resources (Historical and Architectural)
Teresa Martin	Cultural Resources (Archaeological), Section 106 compliance
Short Elliott Hendrickson (SEH) Inc.	
Mark Benson	Consultant Project Manager
Bob Rogers	Final EIS Coordination and Preparation
Sam Turrentine	Final EIS Preparation
George Calebaugh	Traffic Analysis and Forecasting
Nathan Blanchard	Conceptual Layouts, Alignment Impact Assessment
Deric Deuschle	Fish & Wildlife, Wetlands
Jill Mickelson	Contaminated Properties
Erik Tomlinson	Noise Analysis
Steve Hack	GIS: Alignment Impact Assessment, Graphics
Subconsultants	
Yaggy Colby – Dan Shiefert and Ben Johnson	Floodplain, Water Quality, Surface Water Drainage, Geology/Groundwater
Gemini Research – Scott Kelly, Sue Granger	Architectural and Historical Property Investigations
Florin Cultural Resources Service – Frank Florin	Archaeological Investigations

Appendix A

Preliminary Layouts for Preferred Alternative

(Figures A1 through A8)



LEGEND

- Proposed Roadway
- Proposed Paved Shoulder
- Proposed Bridge
- Proposed Gravel Roadway
- Proposed Storm Water Pond
- Proposed Right of Way
- Existing Right of Way
- Proposed Limits of Construction
- Access/Public Road Closure
- Historic Structure
- Historic Site Boundary
- Property Relocation
- Wetland Boundary
- Wetland Impact
- Ditch Boundary
- Ditch Impact
- Prairie Boundary
- Prairie Impact
- Analyzed Noise Wall
- Noise Monitoring & Receptor Sites
- Potentially Contaminated Properties
  - = High Risk
  - = Medium Risk
  - = Low Risk

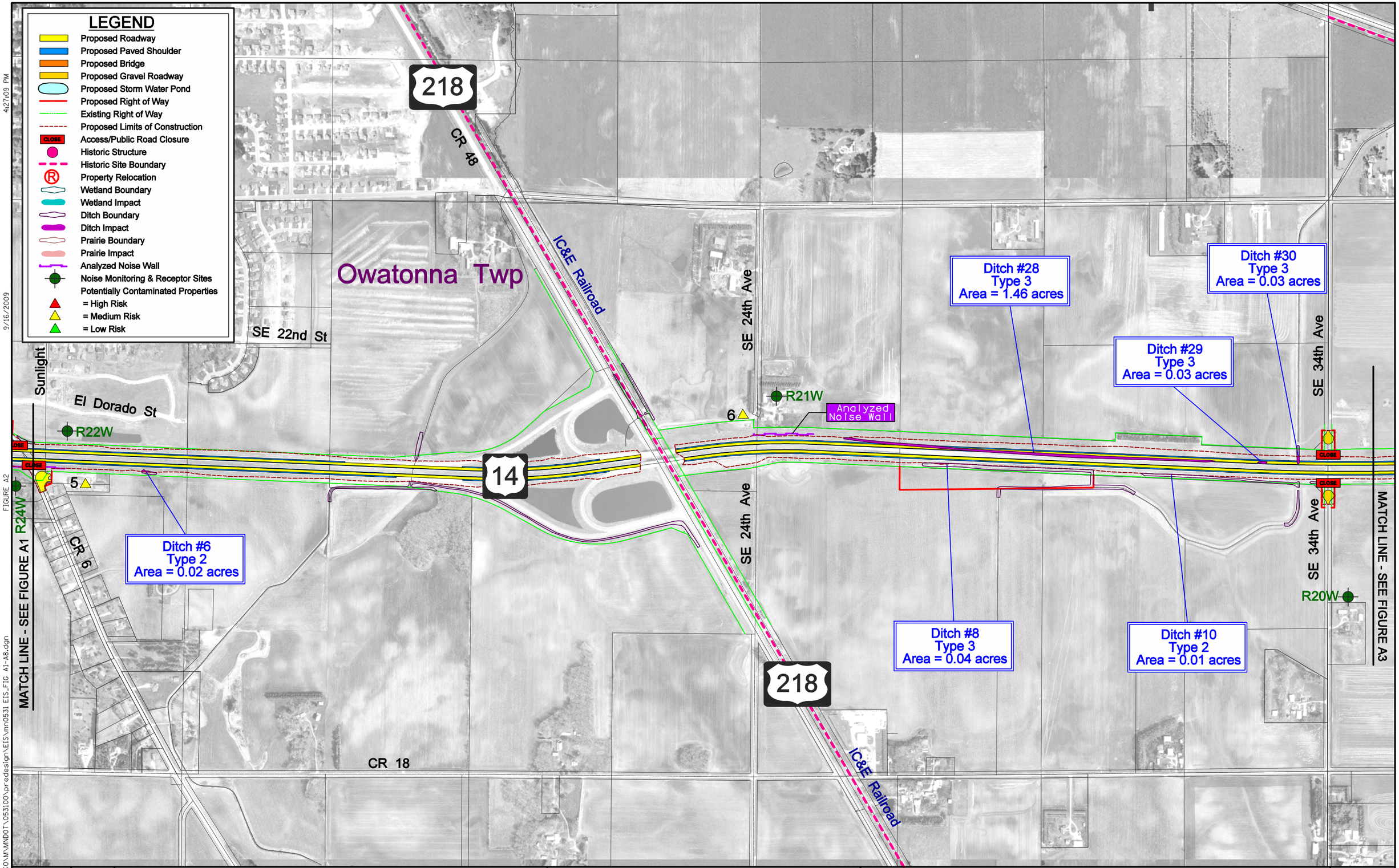
DATE: 8/2/2010

scale 200 — 400 0 400 800 feet

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE A1



4:27:09 PM
9/16/2009
FIGURE A2
PLOT BY: cflor
S:\KOM\MNDOT\053100\predesign\EIS\mn0531 EIS_FIG A1-A8.dgn

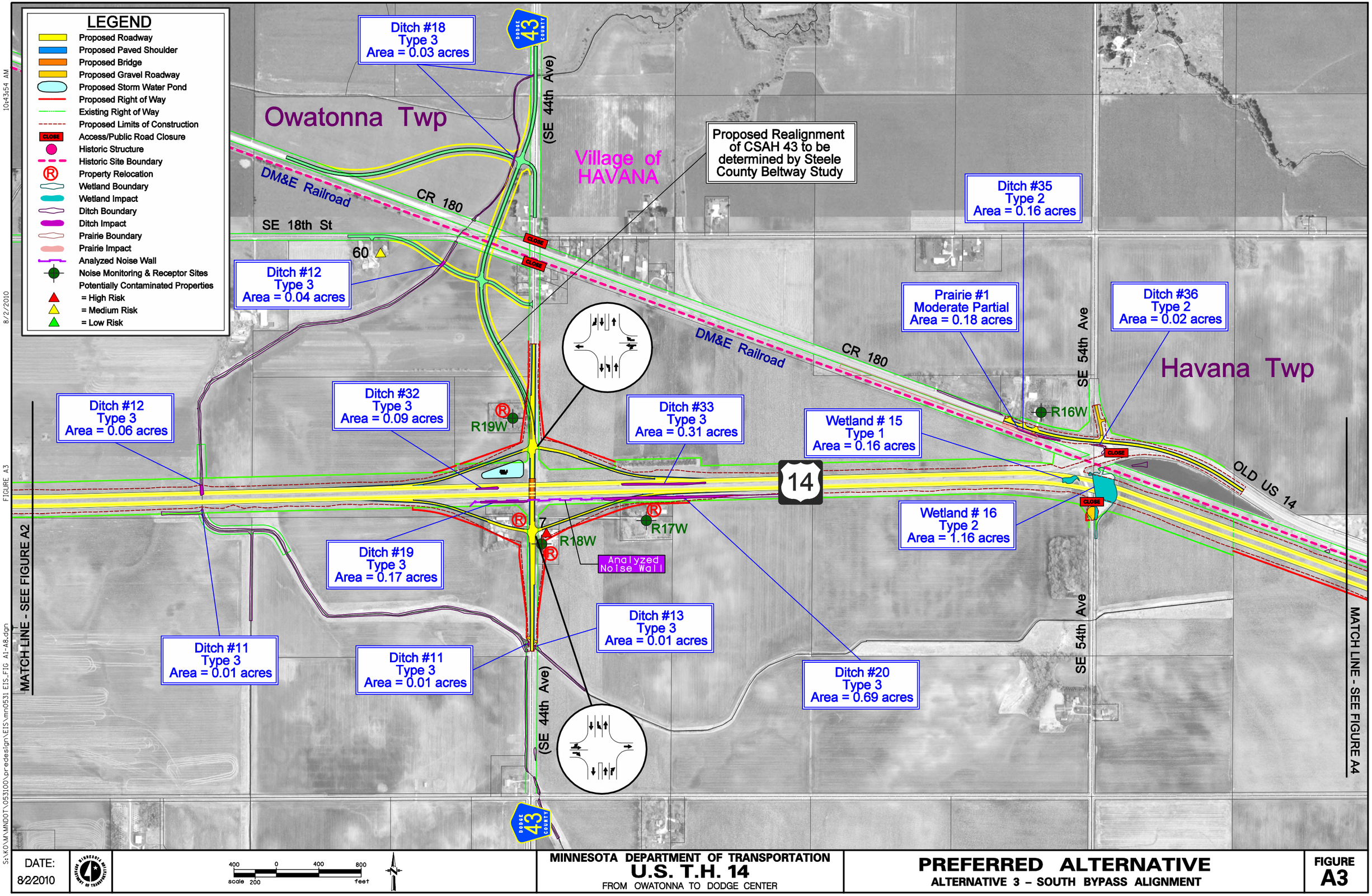
DATE: 9/16/2009

scale 200 400 0 400 800 feet

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE
A2


LEGEND
Proposed Roadway
Proposed Paved Shoulder
Proposed Bridge
Proposed Gravel Roadway
Proposed Storm Water Pond
Proposed Right of Way
Existing Right of Way
Proposed Limits of Construction
Access/Public Road Closure
Historic Structure
Historic Site Boundary
Property Relocation
Wetland Boundary
Wetland Impact
Ditch Boundary
Ditch Impact
Prairie Boundary
Prairie Impact
Analyzed Noise Wall
Noise Monitoring & Receptor Sites
Potentially Contaminated Properties
= High Risk
= Medium Risk
= Low Risk
Owatonna Twp
Village of HAVANA
Havana Twp
Ditch #18
Type 3
Area = 0.03 acres
Proposed Realignment of CSAH 43 to be determined by Steele County Beltway Study
Ditch #35
Type 2
Area = 0.16 acres
Ditch #12
Type 3
Area = 0.04 acres
Prairie #1
Moderate Partial
Area = 0.18 acres
Ditch #36
Type 2
Area = 0.02 acres
Ditch #12
Type 3
Area = 0.06 acres
Ditch #32
Type 3
Area = 0.09 acres
Ditch #33
Type 3
Area = 0.31 acres
Wetland # 15
Type 1
Area = 0.16 acres
Wetland # 16
Type 2
Area = 1.16 acres
Ditch #19
Type 3
Area = 0.17 acres
Ditch #13
Type 3
Area = 0.01 acres
Ditch #11
Type 3
Area = 0.01 acres
Ditch #11
Type 3
Area = 0.01 acres
Ditch #20
Type 3
Area = 0.69 acres
Analyzed Noise Wall
R16W
R17W
R18W
R19W
DM&E Railroad
CR 180
SE 18th St
60
(SE 44th Ave)
SE 54th Ave
OLD US 14
14
DODGE 43 COUNTY
CLOSE
MATCH LINE - SEE FIGURE A2
MATCH LINE - SEE FIGURE A4
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8/2/2010
FIGURE A3
PLOT BY: nblanchard
S:\KOV\MNDOT\053100\predesign\EIS\mn0531 EIS_FIG A1-A8.dgn
DATE:
8/2/2010
400 0 400 800
scale 200 feet
MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER
PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT
FIGURE
A3

Havana Twp

OLD US 14

DM&E Railroad

SE 64th Ave

SE 28th St

SE 28th St

SE 74th Ave

OLD US 14

Wetland # 6
Type 2
Area = 1.34 acres

Wetland # 5
Type 2
Area = 2.37 acres

Wetland # 9
Type 1
Area = 0.31 acres

Wetland # 10
Type 1
Area = 0.18 acres

Wetland # 7
Type 3
Area = 0.40 acres

Wetland # 11
Type 6
Area = 0.06 acres

Analyzed Noise Wall

R15W

R14W

R13W

R12W

8

9

CLOSE

14

MATCH LINE - SEE FIGURE A3

MATCH LINE - SEE FIGURE A5

LEGEND

- Proposed Roadway
- Proposed Paved Shoulder
- Proposed Bridge
- Proposed Gravel Roadway
- Proposed Storm Water Pond
- Proposed Right of Way
- Existing Right of Way
- Proposed Limits of Construction
- Access/Public Road Closure
- Historic Structure
- Historic Site Boundary
- Property Relocation
- Wetland Boundary
- Wetland Impact
- Ditch Boundary
- Ditch Impact
- Prairie Boundary
- Prairie Impact
- Analyzed Noise Wall
- Noise Monitoring & Receptor Sites
- Potentially Contaminated Properties
  - = High Risk
  - = Medium Risk
  - = Low Risk

DATE: 9/16/2009

scale 200 400 0 400 800 feet

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE A4

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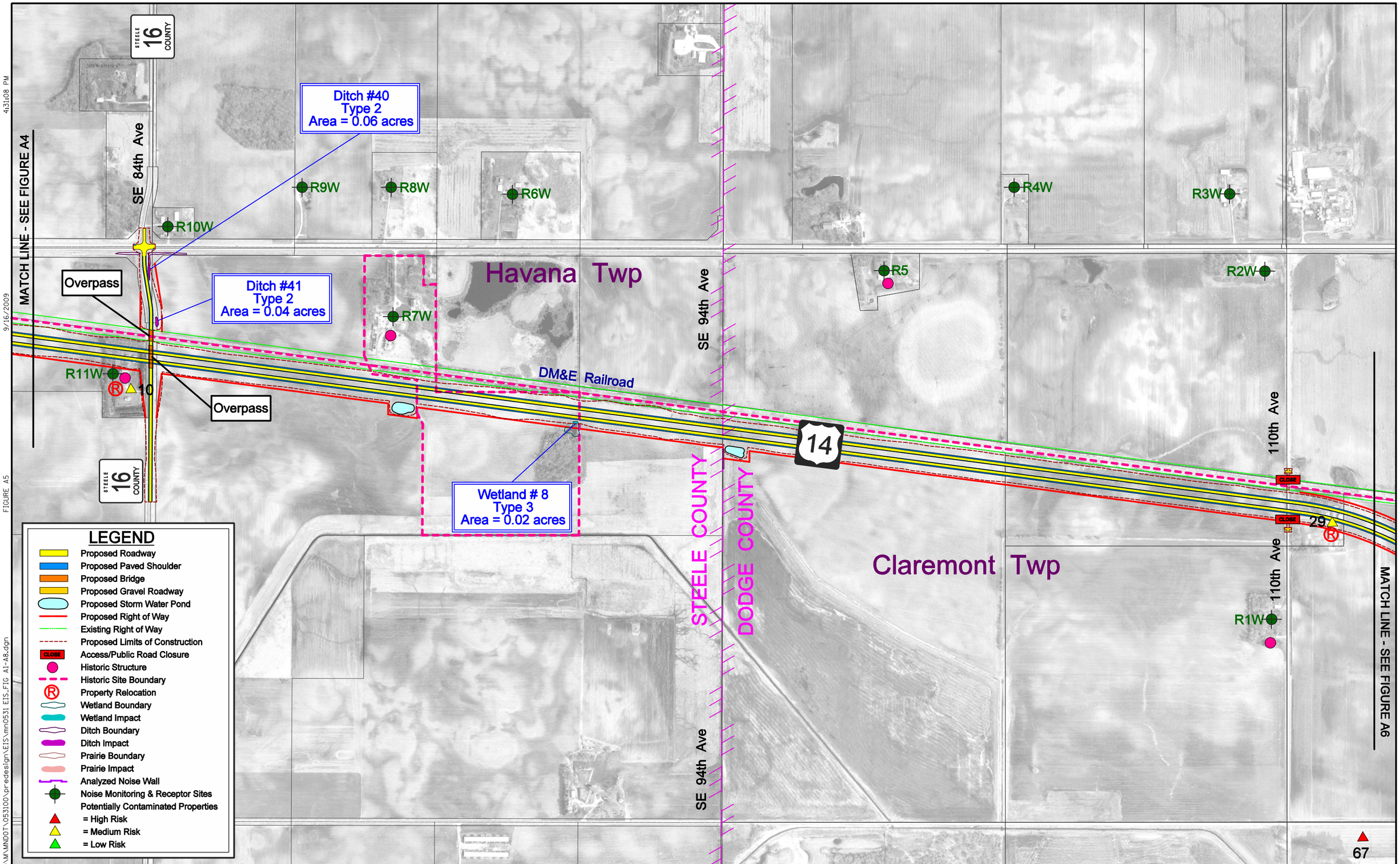

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FIGURE A5
PLOT By: cflor
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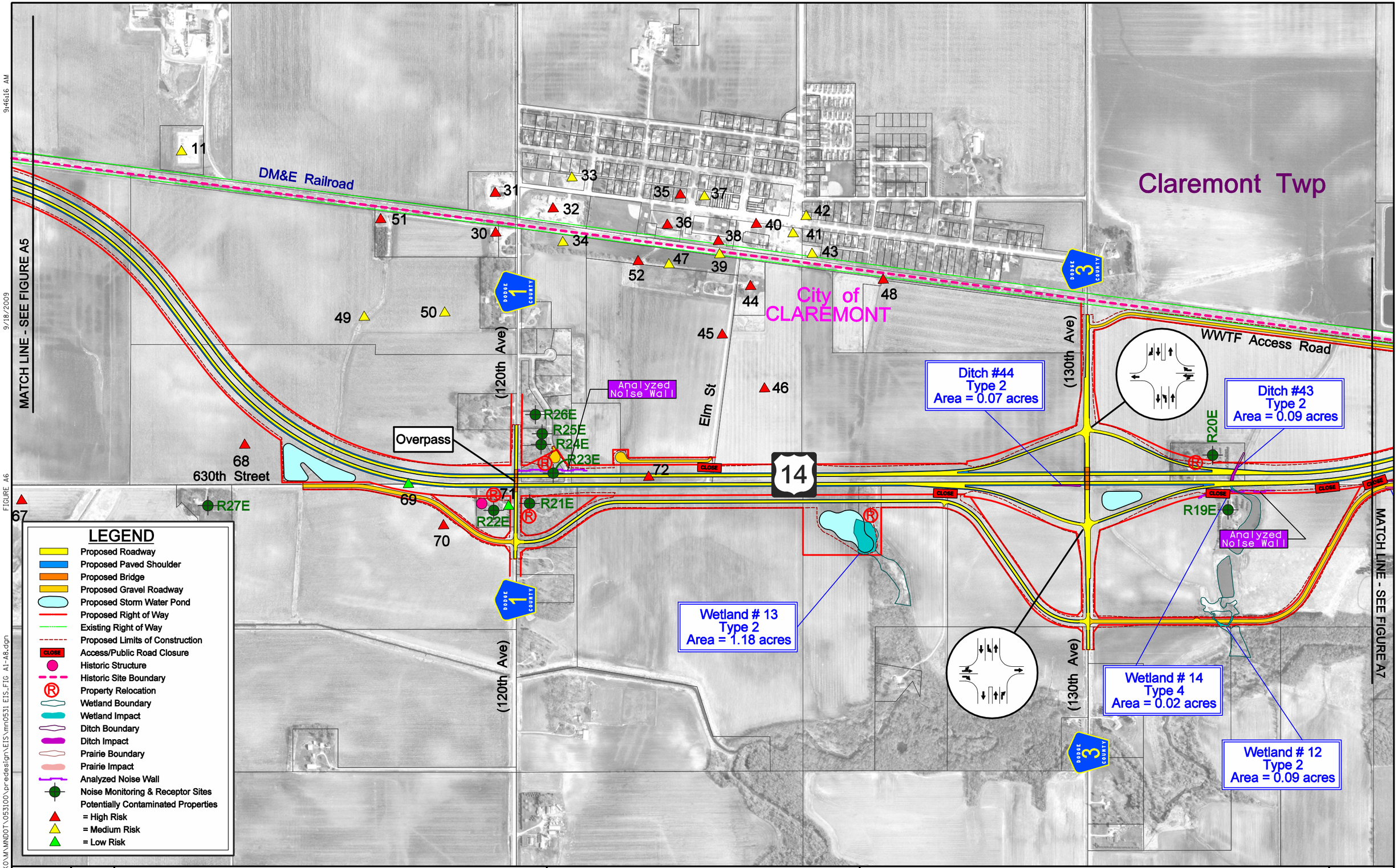
DATE: 9/16/2009

scale 200 400 0 400 800 feet

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE A5



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9/18/2009
FIGURE A6
PLOT BY: cflor
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DATE: 9/18/2009

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE **A6**

Ditch #47
Type 2
Area = 0.30 acres

Ditch #48
Type 2
Area = 0.41 acres

Wetland # 2
Type 2
Area = 0.03 acres

Prairie #5
Moderate Partial
Area = 0.06 acres

Ditch #52
Type 2
Area = 0.35 acres

Wetland # 3
Type 2
Area = 0.05 acres

Ditch #51
Type 2
Area = 0.01 acres

Ditch #53
Type 2
Area = 0.21 acres

DM&E Railroad

140th Ave

150th Ave

630th St

630th Street

630th St Extension

14

CLOSE

Analyzed Noise Wall

R18E

R17E

53

R16E

R15E

54

56

R12E

R14E

R13E

55

Prairie #6
Low
Area = 0.09 acres

Ditch #46
Type 3
Area = 0.06 acres

Prairie #4
Low
Area = 0.07 acres

Ditch #54
Type 2
Area = 0.34 acres

Ditch #45
Type 2
Area = 0.10 acres

Wetland # 4
Type 2
Area = 0.01 acres

Ditch #50
Type 2
Area = 0.02 acres

Prairie #8
Moderate Partial
Area = 0.10 acres

Ditch #49
Type 2
Area = 0.10 acres

MATCH LINE - SEE FIGURE A6

MATCH LINE - SEE FIGURE A8

LEGEND

- Proposed Roadway
- Proposed Paved Shoulder
- Proposed Bridge
- Proposed Gravel Roadway
- Proposed Storm Water Pond
- Proposed Right of Way
- Existing Right of Way
- Proposed Limits of Construction
- CLOSE — Access/Public Road Closure
- Historic Structure
- Historic Site Boundary
- Property Relocation
- Wetland Boundary
- Wetland Impact
- Ditch Boundary
- Ditch Impact
- Prairie Boundary
- Prairie Impact
- Analyzed Noise Wall
- Noise Monitoring & Receptor Sites
- Potentially Contaminated Properties
  - = High Risk
  - = Medium Risk
  - = Low Risk

DATE: 2/2/2010

400 0 400 800
scale 200 feet

MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER

PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT

FIGURE A7

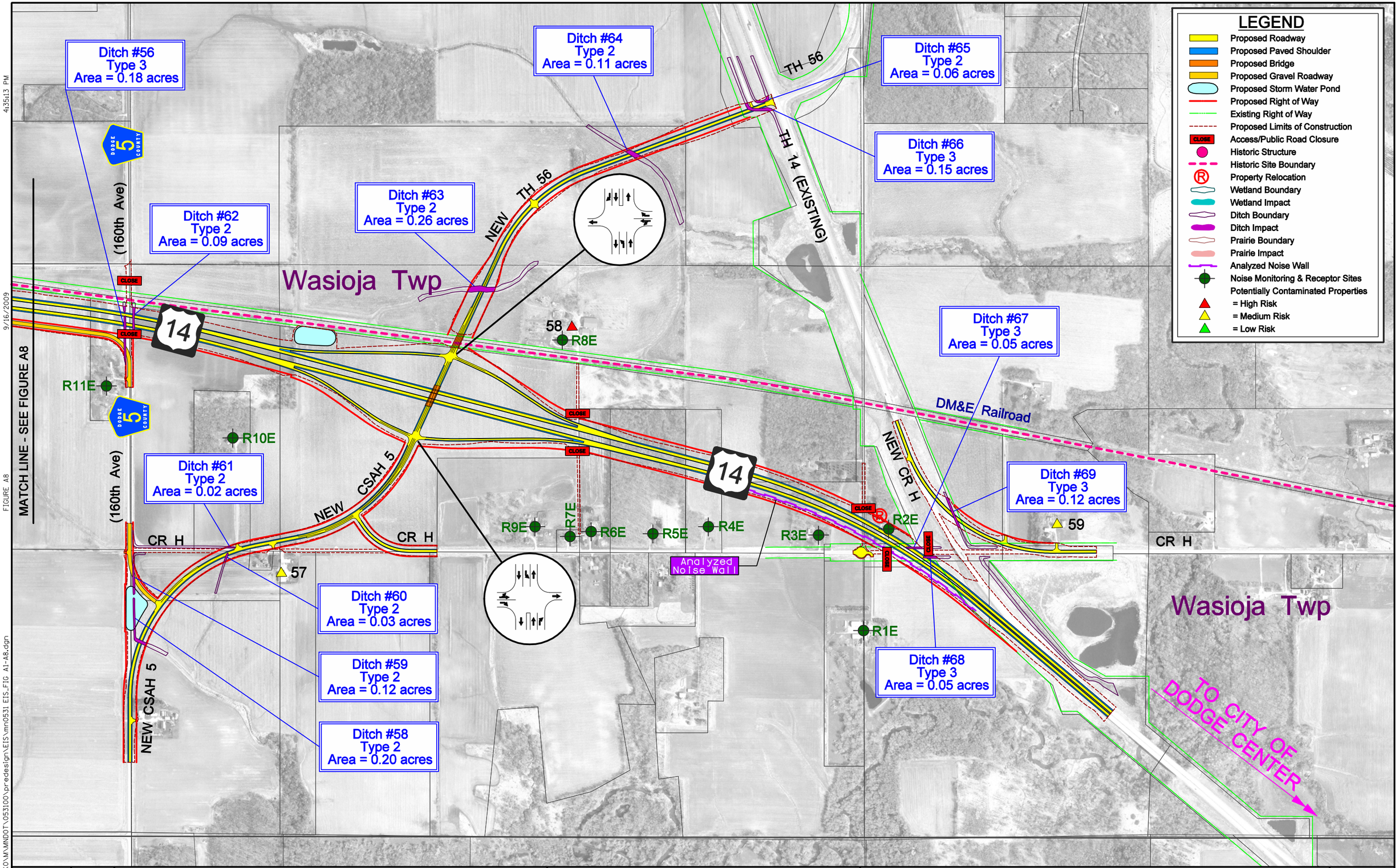
LEGEND
Proposed Roadway
Proposed Paved Shoulder
Proposed Bridge
Proposed Gravel Roadway
Proposed Storm Water Pond
Proposed Right of Way
Existing Right of Way
Proposed Limits of Construction
Access/Public Road Closure
Historic Structure
Historic Site Boundary
Property Relocation
Wetland Boundary
Wetland Impact
Ditch Boundary
Ditch Impact
Prairie Boundary
Prairie Impact
Analyzed Noise Wall
Noise Monitoring & Receptor Sites
Potentially Contaminated Properties
= High Risk
= Medium Risk
= Low Risk
Ditch #56
Type 3
Area = 0.18 acres
Ditch #64
Type 2
Area = 0.11 acres
Ditch #65
Type 2
Area = 0.06 acres
Ditch #66
Type 3
Area = 0.15 acres
Ditch #62
Type 2
Area = 0.09 acres
Ditch #63
Type 2
Area = 0.26 acres
Ditch #67
Type 3
Area = 0.05 acres
Ditch #61
Type 2
Area = 0.02 acres
Ditch #69
Type 3
Area = 0.12 acres
Ditch #60
Type 2
Area = 0.03 acres
Ditch #59
Type 2
Area = 0.12 acres
Ditch #58
Type 2
Area = 0.20 acres
Ditch #68
Type 3
Area = 0.05 acres
Wasioja Twp
Wasioja Twp
TH 56
NEW TH 56
TH 14 (EXISTING)
(160th Ave)
CSAH 5
NEW CSAH 5
CR H
NEW CR H
DM&E Railroad
MATCH LINE - SEE FIGURE A8
TO CITY OF DODGE CENTER
Analyzed Noise Wall
CLOSE
R11E
R10E
R9E
R7E
R6E
R5E
R4E
R3E
R2E
R1E
R8E
57
58
59
14
DATE: 9/16/2009
400 0 400 800
scale 200 feet
MINNESOTA DEPARTMENT OF TRANSPORTATION
U.S. T.H. 14
FROM OWATONNA TO DODGE CENTER
PREFERRED ALTERNATIVE
ALTERNATIVE 3 – SOUTH BYPASS ALIGNMENT
FIGURE A8
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FIGURE A8
PLOT BY: cfior
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Appendix B

Historic Properties Memorandum of Agreement (MOA)

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.]2001-32)
BETWEEN OWATONNA AND DODGE CENTER, 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 Owatonna and Dodge Center (S.P. 2001-32); and

WHERAS, the FHWA has found that the undertaking will have adverse effects on five historic properties the FHWA has determined eligible for listing on the National Register of Historic Places; and

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, 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 invited the Mn/DOT to become a signatory to this memorandum of agreement (MOA) pursuant to 36 CFR 800.6(c)(2); and

NOW, WHEREFORE, 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) The Mn/DOT will complete a context 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.

(B) The Mn/DOT will complete Level I historic documentation of the Dunker Barn/Silo (ST-HAV-035) and the Lehmann Barn/Silo (DO-CLT-47) according to the *Minnesota Historic Property Record Guidelines* developed by the SHPO (revised June 2009). The Mn/DOT will

submit the completed documentation to the SHPO for approval prior to the removal or demolition of the barns.

(C) If the Mn/DOT purchases the Dunker Barn/Silo (ST-HAV-035) and/or the Lehman Barn/Silo (DO-CLT-047), they will seek to transfer ownership of acquired properties prior to their demolition.

i. The Mn/DOT will give preference to parties who propose to rebuild the barns for use at new locations.

ii. The Mn/DOT will develop a marketing plan for the barns in consultation with the SHPO. The completed plan will be forwarded to the SHPO for their review and concurrence prior to advertising. The Mn/DOT will consult with the SHPO regarding appropriate venues for advertising the barns for sale.

iii. If the Mn/DOT receives acceptable offers for ownership of the barns, the Mn/DOT will provide the SHPO with copies of the offers and may proceed with transfer of the properties.

iv. If the Mn/DOT receives no acceptable offers for transferring ownership of the barns by December 31, 2010, the Mn/DOT may proceed with demolition of these properties.

(D) The Mn/DOT will work with the construction contractor to protect unevaluated portions of archaeological Site 21DO0014. 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 SHPO 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 five (5) years of its full execution date, 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 reinitiate 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.

FEDERAL HIGHWAY ADMINISTRATION (FHWA)

By: _____ 7/27/10

for Derrell Turner, Division Administrator — Date

MINNESOTA STATE HISTORIC PRESERVATION OFFICE (SHPO)

By: _____ 7.14.10

for Nina Archabal, State Historic Preservation Officer — Date

Invited Signatories:

MINNESOTA DEPARTMENT OF TRANSPORTATION (Mn/DOT)

By: _____ 7-22-10
Thomas K. Sorel, Commissioner Date

Appendix C

Final Section 4(f) Evaluation

HIGHWAY 14
IMPROVEMENT PROJECT

FINAL SECTION 4(f) EVALUATION

August 2010

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Purpose of Section 4(f) Evaluation

The Section 4(f) legislation as established under the Department of Transportation Act of 1966 (49 USC 303, 23 USC 138) and as revised in 2005 by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) [which included moving the Section 4(f) regulations to 23 CFR 774] provides protection for publicly owned parks, recreation areas, public and private historic sites, wildlife, and/or waterfowl refuges from conversion to a transportation use. The Federal Highway Administration may not approve the use of land from a significant publicly owned park, recreation, 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).

Additional protection is provided for outdoor recreational lands under the Section 6(f) legislation (16 USC 4602-8(f) (30)) where Land and Water Conservation (LAWCON) funds were used for the planning, acquisition, or development of the property. These properties may be converted to highway use, but only if replacement land of the same fair market value and equal usefulness is made available. No Section 6(f) properties were identified within the project area.

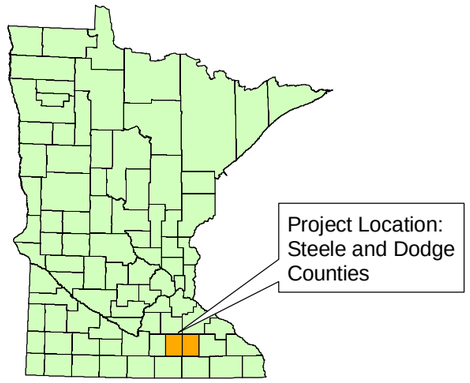
The purpose of this Final Section 4(f) Evaluation is to document the information ultimately required by the Secretary of Transportation to make a decision regarding the use of properties protected by Section 4(f) legislation proposed for acquisition.

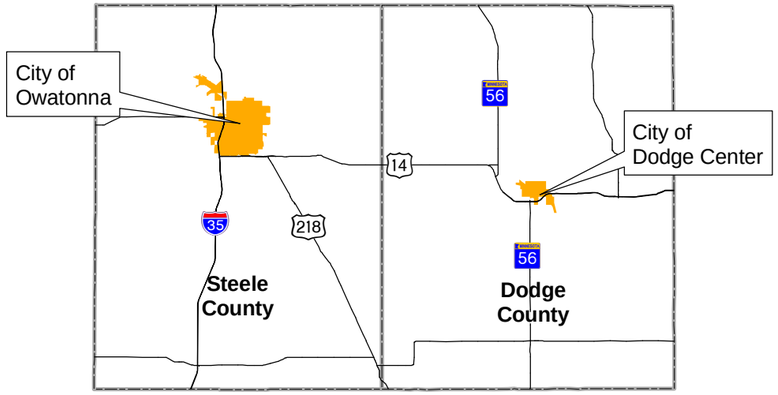
This document describes all identified Section 4(f) properties, which may be acquired or partially acquired for the proposed Trunk Highway (Highway) 14 Improvement Project, potential impacts on those properties, and mitigation measures to minimize impacts.

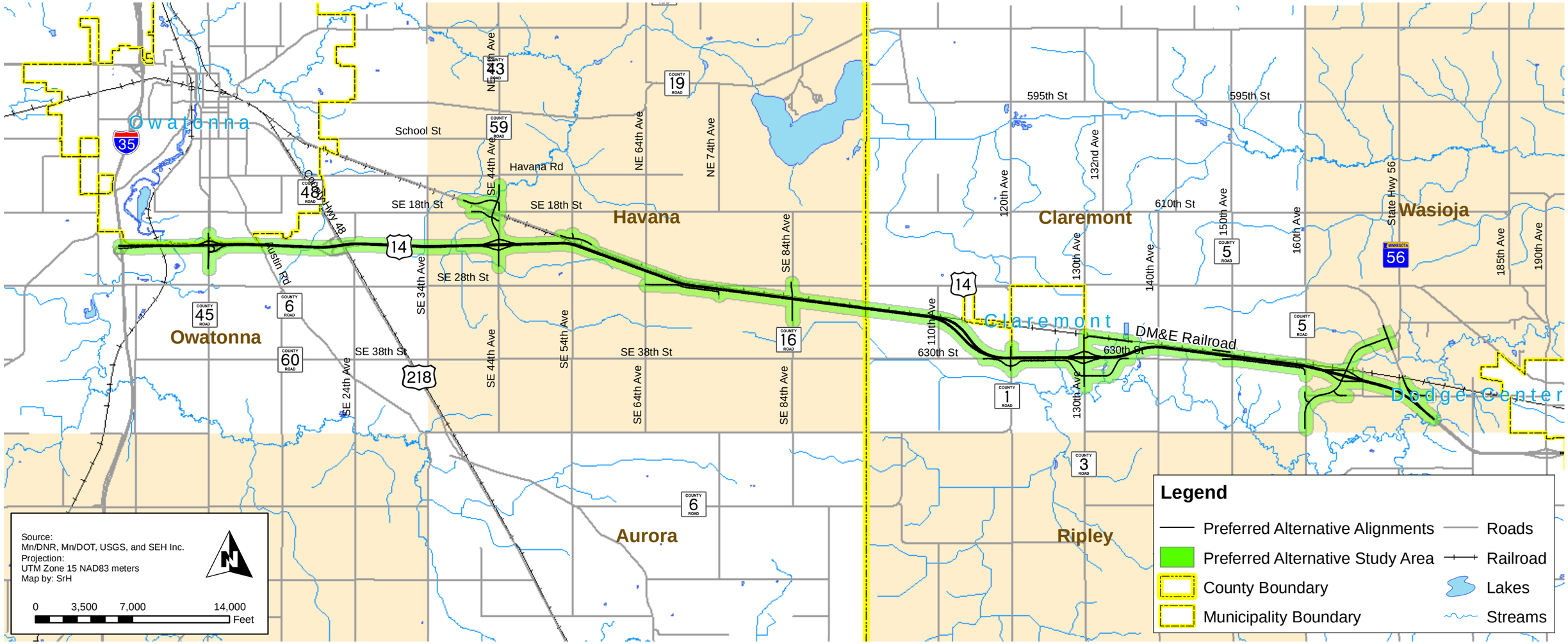
The Section 4(f) process requires that any impacts from the use of a park, recreation area, historic site, or wildlife or waterfowl refuge for highway purposes be evaluated in context with the proposed highway construction/reconstruction activity. An inventory of properties of these types was initially completed for the Draft Environmental Impact Statement (EIS) and was based on a review of general right-of-way corridor alignments. Subsequent effects associated with the preferred alternative documented in the Final EIS were than examined using a more detailed level of preliminary design to refine the proposed footprint of the preferred alternative for this Final Section 4(f) Evaluation.

Description of Proposed Action and Need for Project

The Minnesota Department of Transportation (Mn/DOT) proposes improvements to Highway 14, in Dodge County and Steele County, Minnesota. The project limits extend from the existing four-lane bypass of Dodge Center, Minnesota to Interstate 35 (I-35) in the City of Owatonna, Minnesota. The total length of the project corridor is approximately 17.9 miles (see Figure 1).







Map Document: (S:\KOW\MNDOT\053100\GIS\Maps\EIS_Fig01_ProjectLocationMap.mxd)
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HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Project Location Map
Figure 1

From the west project termini, the preferred alternative (Alternative 3 from the Draft EIS) follows the existing alignment as a rural four-lane divided highway to a point where the existing highway crosses the DM&E Railroad tracks in Havana Township, Steele County. At this point, the preferred alternative continues east on a new alignment south of the railroad corridor. The preferred alternative parallels the railroad corridor to the greatest extent possible but pulls slightly away (south) from the railroad corridor near the City of Claremont. East of Claremont the preferred alternative swings back to the north and continues to run adjacent to the railroad corridor to the eastern project limit in Wasioja Township, Dodge County. A detailed description of the proposed improvements is located in Section 3.0 of the Highway 14 Improvement Project Final EIS and figures illustrating the preferred alternative can be found in Appendix A of the Final EIS.

The primary purpose for the Highway 14 Improvement Project is to address the safety, traffic operation, system continuity, and design deficiencies that characterize the existing highway corridor. A complete description of the project purpose and need was presented in Section 2.5 of the Highway 14 Draft EIS.

A brief description of each alternative considered in the Draft EIS is provided below. A more detailed description is provided in Section 3.0 of the Highway 14 Draft EIS.

Alternative 1 – No-Build Alternative

Under the No-Build Alternative, Highway 14 improvements would be limited to normal pavement maintenance and minor transportation system management improvements, including shoulder widening, turn lanes, periodic shoulder bypass lanes, access consolidation, and minor geometric changes.

Alternative 2 – Existing Alignment

This alternative would reconstruct Highway 14 as a rural four-lane freeway (full access control) along the existing highway alignment (see Figure 1). Grade separated interchanges would be located near Owatonna (Steele County Road 45, State Highway 218, and Steele County Road 43), in Claremont (Dodge County Road 1), and near Dodge Center (State Highway 56/Dodge County Road 5).

Alternative 3 – South Bypass Alignment

This alternative shares the same alignment as Alternative 2 from I-35 to a point just west of the existing at-grade highway and railroad crossing in Steele County. At this point Alternative 3 would remain south of the railroad corridor to the eastern project limit near Dodge Center. Alternative 3 would reconstruct/construct a rural four-lane freeway (full access control) along new and existing highway alignment (see Figure 1). Grade separated interchanges would be located near Owatonna (Steele County Road 45, State Highway 218, and Steele County Road 43), in Claremont (Dodge County Road 3), and near Dodge Center (State Highway 56/Dodge County Road 5).

Alternative 3 with Claremont South Bypass Option 4 has been identified as the preferred alternative. The process of identifying a preferred alternative consisted of several steps including scoping a full range of alternatives, evaluating alternatives against the project purpose and need objectives, assessing potential impacts, and considering public and agency input/comments. The identification of Alternative 3

(South Bypass Alignment) with the inclusion of Claremont Option 4 as the preferred alternative was made by Mn/DOT after careful consideration of the alternative's ability to meet the project purpose and need objectives (see below):

Maintain Highway Mobility:

- Alternative 3 provides the most efficient travel through the study area by providing a limited access high-speed route and because the distance of the corridor is shorter than other alternatives considered.
- Alternative 3 provides a better long-term solution for local operational issues because the existing highway alignment has the ability to serve as a parallel route for local and agricultural related traffic, therefore eliminating the need to upgrade other existing township/county roads to serve these needs.

Improves Travel Safety:

- Alternative 3 improves travel safety through the construction of a four-lane freeway section. Over a five-year period (2001-2005), this segment of Higwhay 14 experienced 195 crashes, including 9 crashes that resulted in fatalities. The design of the preferred alternative (rural four-lane divided highway section with no at-grade intersections) is anticipated to substantially reduce the total number of crashes as well as the severity of crashes.
- Another safety benefit that will be realized as a result of Alternative 3 will be the elimination of up to ten public road at-grade crossings and four private crossings of the Dakota, Minnesota & Eastern rail line. This action is compliant with Federal Railroad Administration, FHWA, and Mn/DOT safety initiatives.

Enhances System Continuity:

- Alternative 3 is consistent with the design of Highway 14 both east and west of the study area as it will be a four-lane freeway section that remains south of the railroad corridor.

Fosters Economic Development:

- Alternative 3 with the inclusion of Claremont South Bypass Option 4 avoids dividing the City and provides Claremont with future development opportunities.

All potential social, economic, and environmental impacts documented in the Draft EIS were also considered along with input from municipalities, local, state, and federal agencies, and the public.

- Social, economic, and environmental impacts are not substantially greater or less than other alternatives/options considered.
- Alternative 3 had the highest benefit-cost ratio indicating the benefits of the project outweigh the costs.
- Alternative 3 has a lower estimated construction and right-of-way cost.
- Alternative 3 with Claremont Option 4 received the greatest amount of support from the public and local governmental units during the comment period.

Potential Section 4(f) Resources in the Project Area

The first step in completing the Section 4(f) Evaluation for the Highway 14 Improvement Project was to conduct a comprehensive review of the project study area to identify all potentially affected Section 4(f) and/or Section 6(f) resources. Based on a field review, research of available databases and documents, and the results of the cultural resource (historical and archaeological) investigations, the following potential Section 4(f) resources have been identified in the project study area (see Figure 2). A determination as to whether the proposed transportation improvements would result in a Section 4(f) use is included in the description of each resource below. There were no Section 6(f) properties identified in the project area.

Winona and St. Peter Railroad Corridor

The Winona and St. Peter Railroad Corridor (also known as the Dakota, Minnesota, and Eastern (DM&E) Railroad) parallels Highway 14 throughout much of the project corridor and in two locations is currently crossed by the highway (one at-grade and one grade-separated crossing). Within the project area, several segments of the railroad corridor were determined to be eligible for the National Register of Historic Places (NRHP). Both Alternatives 2 and 3 involve improvements adjacent to and/or across the railroad right-of-way. However, based on the assessment of proposed highway improvements, it was determined that the preferred alternative will not result in a use of Section 4(f) property from the railroad corridor.

Burlington, Cedar Rapids and Northern Railroad Corridor

The Burlington, Cedar Rapids and Northern Railroad Corridor (also known as the Union Pacific Railroad) crosses under Highway 14 approximately one-half mile east of I-35 in the City of Owatonna. Based on the assessment of proposed highway improvements, it was determined that the preferred alternative will not result in a use of Section 4(f) property from the railroad corridor.

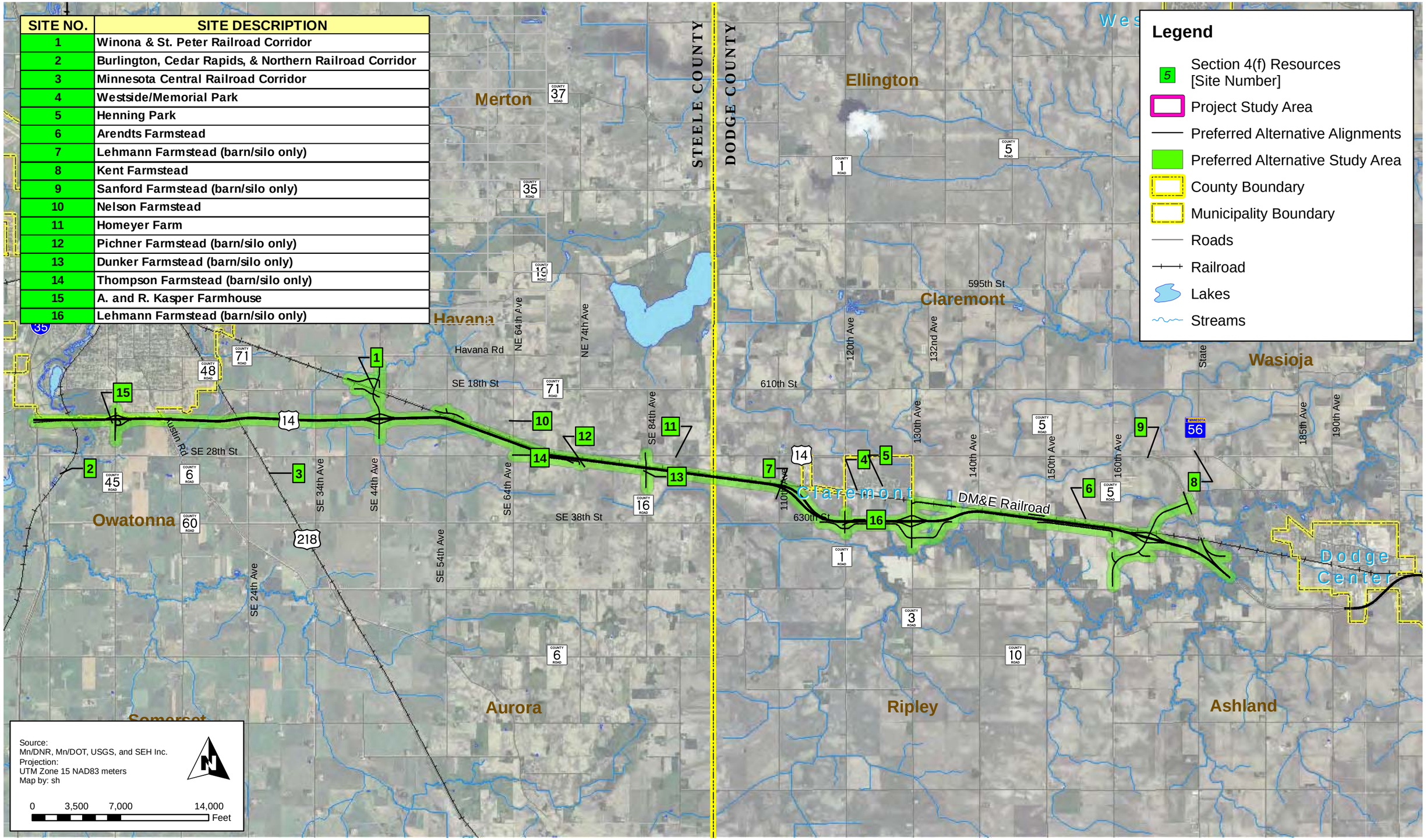
Minnesota Central Railroad Corridor

The Minnesota Central Railroad Corridor (also known as the Iowa, Chicago and Eastern (IC&E) Railroad) crosses under Highway 14 at the Highway 218 interchange near the City of Owatonna. Based on the assessment of the preferred alternative, it was determined that the improvements will not result in a use of Section 4(f) property from the railroad corridor.

Westside/Memorial Park and Henning Park

Westside/Memorial Park and Henning Park are located in the City of Claremont. Westside/Memorial Parks are adjacent to one another and are located south of Dodge County Road 3 (Front Street) and north of the DM&E rail corridor, which runs through the City of Claremont. These parks, which are owned and maintained by the City of Claremont provide recreational opportunities including play equipment, ball fields, and picnic facilities for area residents. Based on an assessment of the proposed highway improvements, it was determined that the preferred alternative will not result in a use of Section 4(f) property from these parks.

SITE NO.	SITE DESCRIPTION
1	Winona & St. Peter Railroad Corridor
2	Burlington, Cedar Rapids, & Northern Railroad Corridor
3	Minnesota Central Railroad Corridor
4	Westside/Memorial Park
5	Henning Park
6	Arendts Farmstead
7	Lehmann Farmstead (barn/silo only)
8	Kent Farmstead
9	Sanford Farmstead (barn/silo only)
10	Nelson Farmstead
11	Homeyer Farm
12	Pichner Farmstead (barn/silo only)
13	Dunker Farmstead (barn/silo only)
14	Thompson Farmstead (barn/silo only)
15	A. and R. Kasper Farmhouse
16	Lehmann Farmstead (barn/silo only)



Map Document: (S:\KOW\MNDOT\053100\GIS\Maps\EIS_Fig01_Section_4f_Evaluation.mxd)
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HIGHWAY 14 IMPROVEMENT PROJECT
Owatonna to Dodge Center

Final Section 4(f) Evaluation
Identified Section 4(f) Resources
Figure 2

Kaplan Woods Park

Kaplan Woods Park is located in the City of Owatonna. A portion of the property is located in the northwest quadrant of the Steele CSAH 45/Highway 14 interchange. The park, which is owned and maintained by the City of Owatonna provides several recreational opportunities, however, the area adjacent to the highway corridor is primarily open space. Alternatives 2 and 3, from the Draft EIS, include improvements to the interchange and Steele County Road 45. However, based on the preliminary design of the preferred alternative, the proposed improvements will not require acquisition from park property and therefore will not constitute a Section 4(f) use.

Arendts Farmstead

The Arendts Farmstead is located in Section 25, of Claremont Township, in Dodge County. The site, which is privately owned, was determined to be eligible for the NRHP. The preferred alternative will require the closure of 630th Street across the DM&E rail line and construction of a vehicle turn around along 630th Street. Based on the assessment of the proposed improvements, the Arendts Farmstead located in Section 25 of Claremont Township will not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Lehmann Farmstead (Barn & Silo only)

The Lehmann Farmstead is located in Section 30, of Claremont Township, in Dodge County. The site, which is privately owned, was determined to be eligible for the NRHP. Based on the assessment of the proposed improvements, the Lehmann Farmstead located in Section 30 of Claremont Township will not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Kent Farmstead

The Kent Farmstead is located in Section 19, of Wasioja Township, in Dodge County. This privately owned site was determined to be eligible for the NRHP. Based on the assessment of the highway improvements, the Kent Farmstead will not be impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Sanford Farmstead (Barn & Silo only)

The Sanford Farmstead is located in Section 30, of Wasioja Township, in Dodge County. The site, which is privately owned, includes a barn and silo that were determined to be eligible for the NRHP. Based on the assessment of the highway improvements, the Sanford Farmstead will not be impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Nelson Farmstead

The Nelson Farmstead (also known as the Gasner Farmstead) is located in Section 21, of Havana Township, in Steele County. The site, which is privately owned, was determined to be eligible for the NRHP. Based on an assessment of the highway

improvements, the Nelson Farmstead would not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Homeyer Farm

The Homeyer Farm (also known as the Carroll Farm) is located in Section 25, of Havana Township, in Steele County. The building site and adjoining farmland, which are privately owned, were determined to be an eligible property for the NRHP. Based on an assessment of the build alternatives considered in the Draft EIS, the Homeyer Farm would be directly impacted (i.e. land acquisition) by both Alternative 2 and Alternative 3 (preferred alternative) and as a result it is addressed as a Section 4(f) resource.

Pichner Farmstead (Barn & Silo only)

The Pichner Farmstead is located in Section 26, of Havana Township, in Steele County. The site, which is privately owned, was determined to be eligible for the NRHP. Based on the assessment of the highway improvements, the Pichner Farmstead will not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Dunker Farmstead (Barn, Silo, Milk House, Stock Tank only)

The Dunker Farmstead (also known as the Hruska Farmstead) is located in Section 26, of Havana Township, in Steele County. The site, which is privately owned, includes a barn and silo that were determined to be eligible for the NRHP. Based on the assessment of the proposed highway improvements, the site will be directly impacted (i.e. land acquisition and relocation of structures) by the preferred alternative and as a result it is addressed as a Section 4(f) resource.

Thompson Farmstead (Barn & Silo only)

The Thompson Farmstead (also known as the Ripka Farmstead) is located in Section 27 of Havana Township, in Steele County. The site, which is privately owned, was determined to be eligible for the NRHP. Based on an assessment of the highway improvements, the Thompson Farmstead will not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

A. and R. Kasper Farmhouse

The A. and R. Kasper Farmhouse (part of the Gainey Conference Center) is located in Section 21, of Owatonna Township, in Steele County. The site, which is owned by the University of Saint Thomas, includes a farmhouse that was determined to be eligible for the NRHP. Based on the assessment of the highway improvements, the site will not be directly impacted by the preferred alternative and therefore does not constitute a Section 4(f) use because no land will be acquired.

Lehmann Farmstead (Barn & Silo only)

The Lehmann Farmstead is located in Section 32, of Claremont Township, in Dodge County. The site, which is privately owned, includes a barn and silo that were

determined to be eligible for the NRHP. Based on the assessment of the proposed highway improvements, the site will be directly impacted (i.e. land acquisition and relocation of structures) by the preferred alternative and as a result it is addressed as a Section 4(f) resource.

Assessment of Affected Section 4(f) Resources

The following properties were identified in the previous section as Section 4(f) resources that maybe used by one of the project alternatives:

- Homeyer Farm
- Dunker Farmstead (barn & silo only)
- Lehmann Farmstead (barn & silo only)

Homeyer Farm

The Homeyer Farm (farmstead and accompanying farmland) have been identified as eligible for listing on the NRHP. Figure 3 depicts the boundary of eligible property and the layout of the farmstead. The farmstead and accompanying farmland area is considered a Section 4(f) resource.

Location and Size

The Homeyer Farm is located on the south side of existing Highway 14 approximately ½-mile east of the Highway 14/Steele County Road 16 intersection and is found in Section 25, of Havana Township, in Steele County. The building site and adjoining farmland (approximately 60 acres) were determined to be an eligible property for the NRHP. The farmstead and eligible property are depicted in Figure 3.

Ownership and Type of Section 4(f) Property

The Homeyer Farm is privately owned. The farmstead and accompanying farmland are considered Section 4(f) resources because they are eligible for listing on the NRHP under Criterion C guidelines (structure embodying the distinctive characteristics of a type, period, or method of construction).

Function of Available Activities on the Property

The Homeyer Farm is a family-operated farm consisting of a farmhouse, agricultural buildings, and agricultural lands.

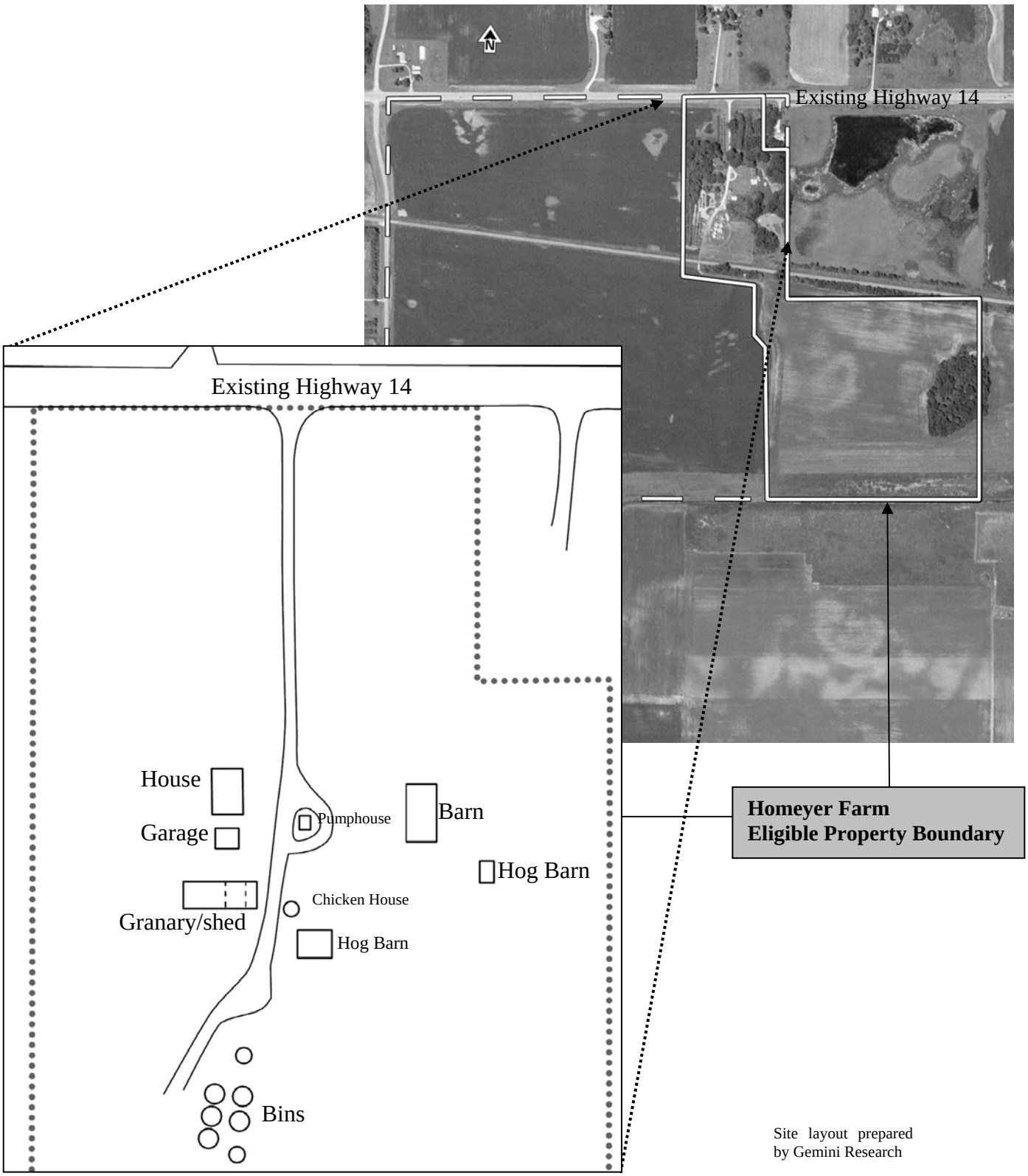
Description and Location of All Existing and Planned Facilities

The insert map on Figure 3 depicts the existing buildings and land associated with this eligible property. The building site is located south of existing Highway 14 and north of the DM&E rail line. The majority of agricultural production (farmland) is located on the south side of the DM&E rail line. There are no known planned facilities associated with the farmstead and accompanying farmland.

Access

A private driveway onto existing Highway 14 provides access to the Homeyer Farm approximately ½-mile east of the Highway 14/Steele County Road 16 intersection.

Figure 3 – Homeyer Farm



Relationship to Other Similarly Used Lands in the Vicinity

Numerous other single-family rural residential sites are located in the vicinity of the Homeyer Farm. According to the *Phase I and II (Identification and Evaluation) Investigation of Historic Structures Along Highway 14 Between Owatonna and Dodge Center Report*, November 2007, there are two other historic building sites and a railroad corridor within an approximate one-mile radius of the Homeyer Farm that are eligible for listing on the NRHP.

Applicable Clauses Affecting the Ownership

The Homeyer Farm, including the farmstead and accompanying farmland, is privately owned.

Unusual Characteristics of the Section 4(f) Property That Either Reduce or Enhance the Value of All or Part of the Property

The Homeyer Farm meets the farm study Criterion C guidelines (structure embodying the distinctive characteristics of a type, period, or method of construction) as a well-preserved example of a family-operated diversified farm built and operated in the late 19th and early 20th centuries, and embodies the physical characteristics that distinguish Minnesota's diversified family farms of that period. The Homeyer Farm is an unusual resource in that not only the building site but also the associated farmland have been determined eligible for listing on the NRHP.

Impacts to the Homeyer Farm

Each of the Build Alternatives considered in the Draft EIS would result in impacts to the Homeyer Farm. Alternative 2 (Existing Alignment) would require the existing access to the Homeyer Farm to be removed since this alternative proposes a full access-controlled freeway section. In order to reestablish access to the Homeyer Farm as well as two additional properties to the east, Alternative 2 would require the acquisition of land and construction of a frontage road along the northern boundary of the Homeyer Farm, which was determined to be an adverse effect. The preferred alternative (Alternative 3 - South Bypass Alignment) also requires acquisition of landfrom the Homeyer Farm, but retains the existing access to the Farm through the use of old Highway 14. The preferred alternative involves constructing the new highway corridor immediately south of the DM&E rail line and since the Homeyer Farm property (including the NRHP eligible farmland) extend south across the railroad corridor the preferred alternative will result in an adverse effect on the property. Figure A5, located in Appendix A of the Final EIS, illustrates the impact to the Homeyer Farm.

Avoidance Alternatives

As discussed in Section 3.1 of the Highway 14 Draft EIS, a full range of alternatives were considered to address the existing and forecasted Highway 14 issues and needs. An assessment of alternatives that included capacity expansion on new highway corridors, which would have provided partial or complete avoidance of impacting the Homeyer Farm was conducted. These corridor alternatives, with the exception of Alternative 3, were dismissed from further consideration for the reasons described in 'Description of the Proposed Action' section above.

Alternatives 1 (No-Build), as presented in the Draft EIS, would avoid any impacts to the Homeyer Farm. However, this alternative does not address the project purpose and need objectives.

Alternative 2 (Existing Alignment) – This alternative would impact the portion of the Homeyer Farm located north of the DM&E railroad corridor. Several design options were considered to avoid impacts to the site. These options included:

- Allowing private access in this section of the highway to remain thus eliminating the need for a frontage road along the south side of Highway 14. This avoidance option does not comply with the access requirements of a full access-controlled freeway section.
- Shifting the highway alignment north of the existing alignment, while leaving the existing roadway in-place thus providing access to the farmstead. This avoidance option would require acquisition of additional right-of-way to accommodate the new highway corridor, would create four additional residential relocations, created additional impacts to surrounding wetlands and farmlands, and result in increased project costs.

Alternative 3 (South Bypass Alignment) – This alternative would impact the portion of the Homeyer Farm located south of the DM&E railroad corridor. The existing Highway 14 roadway would remain unchanged and access to the farmstead site would remain as it currently exists. However, as described above the new Highway 14 corridor would cross and impact the Homeyer Farm (agricultural land) located immediately south of the rail line. The only avoidance option under Alternative 3 would be to shift the highway alignment south of the Homeyer Farm NRHP-eligible property boundary. This avoidance option would create greater impacts to surrounding wetlands and farmlands, impact a county drainage ditch, require the roadway to cross an old lake bed (poor soils), and result in substantially higher project costs.

Due to the location of the Homeyer Farm, other physical constraints (wetlands, farmlands, residences), and the nature of the scope of proposed improvements (access controlled freeway section), it was determined that none of the build alternatives considered in the Draft EIS could completely avoid direct impacts to the Homeyer Farm. Therefore, there are no practical avoidance measures.

Potential Measures to Minimize Harm to the Homeyer Farmstead

To minimize harm and mitigate impacts to the Section 4(f) property, Mn/DOT has been working with the SHPO and a Memorandum of Agreement (MOA) has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A). In summary, the mitigation measures include locating the new highway corridor immediately adjacent to the railroad right-of-way, thus eliminating the potential for any remnant strips of farmland falling between the highway and rail line. This design minimizes the impacts on the amount of farmland and operations of remaining farmland associated with the Homeyer Farm. Mitigation for right-of-way acquisition will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and 49 CFR Part 24.

Coordination

The Mn/DOT Cultural Resource Unit has met several times with SHPO to discuss the Historic property impacts, including the Homeyer Farm, to define impacts, and determine mitigation measures. A MOA has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A).

Conclusion

Based upon the above considerations, it is determined there is no feasible and prudent alternative to the use of land occupied by the Homeyer Farm, and the proposed action includes all possible planning to minimize harm to the Homeyer Farm resulting from such use.

Dunker Farmstead (barn & silo)

The Dunker Farmstead contains a circa 1900 barn and circa 1940 cement stave silo that have been determined to be eligible for listing on the NRHP. Figure 4 shows the layout of the farm and the eligible property boundary. The barn and silo, including the area surrounding these structures is a Section 4(f) historic resource.

Location and Size

The Dunker farmstead is located on the west side of Steele County Road 16 and immediately south of the DM&E railroad corridor, in Section 26, of Havana Township, in Steele County. The size of the parcel and eligible land is approximately 7.5 acres. Since publication of the Draft Section 4(f) Evaluation, the recommended boundary of the NRHP-eligible property has been expanded to include the entire building site and not just the area around the barn and silo (see Figure 4).

Ownership and Type of Section 4(f) Property

The Dunker Farmstead is privately owned. The barn and silo and associated land are considered Section 4(f) resources because they are historic structures eligible for listing on the NRHP.

Function of Available Activities on the Property

The Dunker site is a single-family rural residential farmstead.

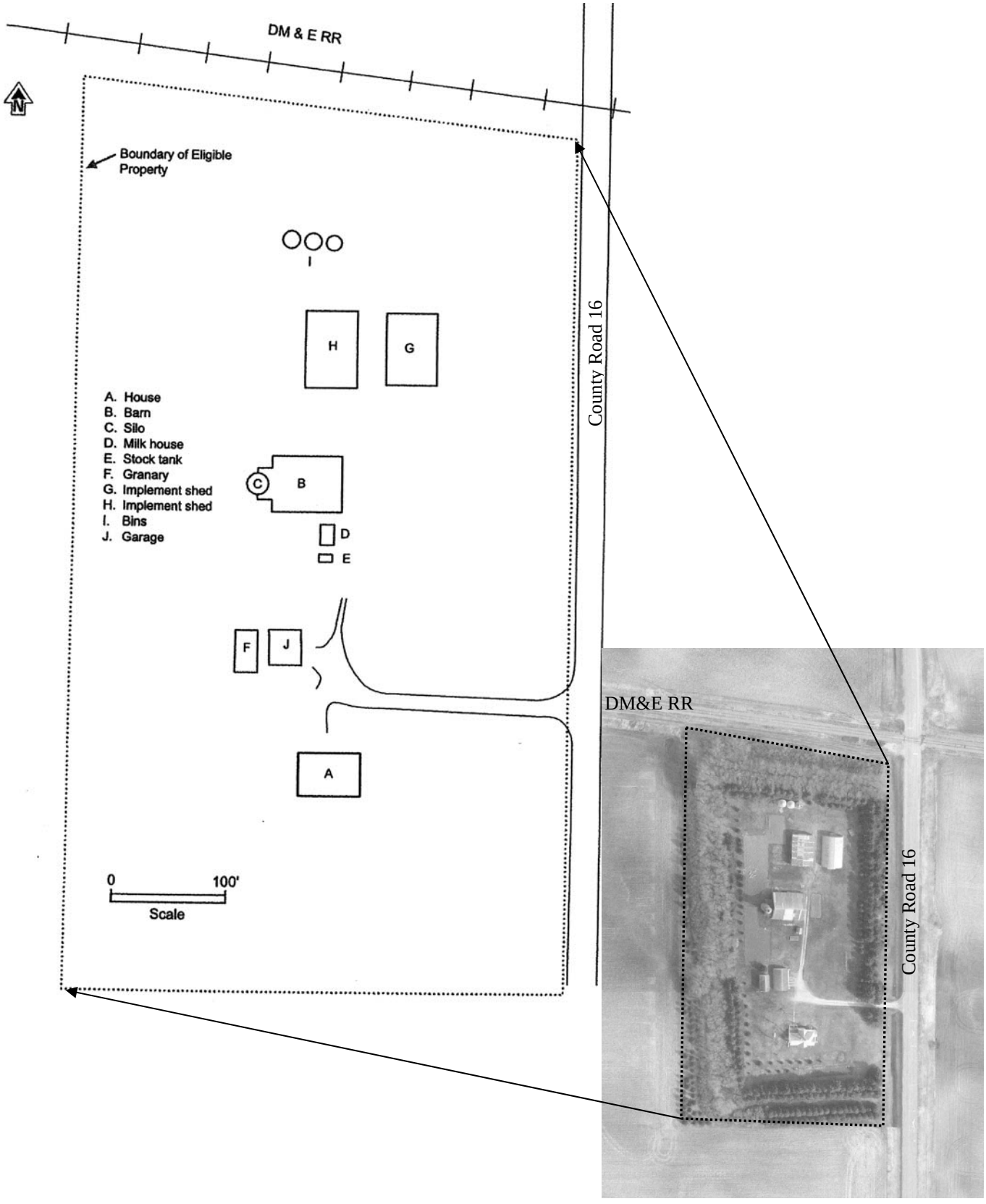
Description and Location of All Existing and Planned Facilities

The site is located south of the DM&E railroad on the west side of County Road 16. The building layout of the farmstead is depicted in the insert map on Figure 4. There are no known planned facilities associated with the barn and silo or the entire farmstead.

Access

A private driveway onto Steele County Road 16 provides access to the Dunker Farmstead approximately 1/4-mile south of Highway 14.

Figure 4 – Dunker Farmstead (barn & silo)



Relationship to other Similarly Used Lands in the Vicinity

Numerous other single-family rural residential sites are located in the vicinity of the Dunker Farmstead. According to the *Phase I and II (Identification and Evaluation) Investigation of Historic Structures Along Highway 14 Between Owatonna and Dodge Center Report*, November 2007, there are three other historic farm sites and a railroad corridor within an approximate one-mile radius of the Dunker Farmstead that are eligible for listing on the NRHP.

Applicable Clauses Affecting the Ownership

The Dunker Farmstead, including the barn and silo, is privately owned.

Unusual Characteristics of the Section 4(f) Property That Either Reduce or Enhance the Value of All or Part of the Property

The Dunker barn and silo meet the farm study Criterion C guidelines (structure embodying the distinctive characteristics of a type, period, or method of construction) as a fairly well-preserved example of a turn of the century transverse frame, or three-portal, barn with timber-frame construction.

The Dunker Farmstead does not appear to be associated with an important event or broad pattern of history (Criterion A), or an important person (Criterion B). Furthermore, the entire Dunker Farmstead does not meet the guidelines for Criterion C eligibility due to loss of integrity including the removal of several agricultural livestock buildings and the addition of several post-1960 elements.

Impacts to the Dunker Farmstead (barn & silo)

Under the preferred alternative (Alternative 3 - South Bypass Alignment) the highway improvements will require removal of the barn and silo and may result in acquisition of the Dunker Farmstead. Whether the entire farmstead will be acquired as part of the preferred alternative will be determined as part of the final design and right-of-way acquisition process. Figure A5, located in Appendix A of the Final EIS, illustrates the impact to the Dunker Farmstead.

Avoidance Alternatives

Alternative 1 (No-Build) - This alternative would avoid any impacts to the Dunker farmstead barn and silo. However, this alternative does not address the project purpose and need objectives.

Alternative 2 (Existing Alignment) – This alternative would avoid any direct impacts to the Dunker farmstead barn and silo. However, this build alternative was not identified as the preferred alternative for the reasons described above in the Description of the Proposed Action section.

Alternative 3 (South Bypass Alignment) – a design option was considered to avoid impacts to the Dunker farmstead barn and silo. This option included shifting the highway alignment south of the Dunker Farmstead. Due to the proximity and location of the Homeyer Farm (another Section 4(f) resource), the Dunker avoidance option proposed to shift the highway alignment so it is also south of the Homeyer Farm NRHP-eligible property boundary. This avoidance option would require acquisition of additional right-of-way to accommodate the

new highway corridor, would create greater impacts to surrounding farmland (acquisition, access, and operations), would require the County Road 16 overpass bridge be shifted further south thus leaving the at-grade crossing with the DM&E rail line in-place, would impact a county drainage ditch, require the roadway to cross an old lake bed (poor soils), and result in substantially higher project costs.

Potential Measures to Minimize Harm to the Dunker Farmstead

To minimize harm and mitigate impacts to the Section 4(f) property, Mn/DOT has been working with the SHPO and a Memorandum of Agreement (MOA) has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A). In summary, the mitigation measures include preparation of a Minnesota Historic Property Record. The historical narrative will be prepared and made available to county and local historical societies for their use in the interpretation of historical farmsteads. Mitigation for right-of-way acquisition will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and 49 CFR Part 24.

Coordination

Mn/DOT has met several times with SHPO to discuss the Historic property impacts, including the Dunker Farmstead, to define impacts, and determine mitigation measures. A MOA has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A).

Conclusion

Based upon the above considerations, it is determined there is no feasible and prudent alternative to the use of land occupied by the Dunker Farmstead, and the proposed action includes all possible planning to minimize harm to the Dunker Farmstead resulting from such use.

Lehamann Farmstead (barn and silo only)

The Lehmann Farmstead contains a circa 1919 barn and a circa 1950 silo that have been determined to be eligible for listing on the NRHP. Figure 5 depicts the layout of the farmstead including the eligible property boundary. The barn and silo, including the area surrounding these structures is considered a Section 4(f) resource.

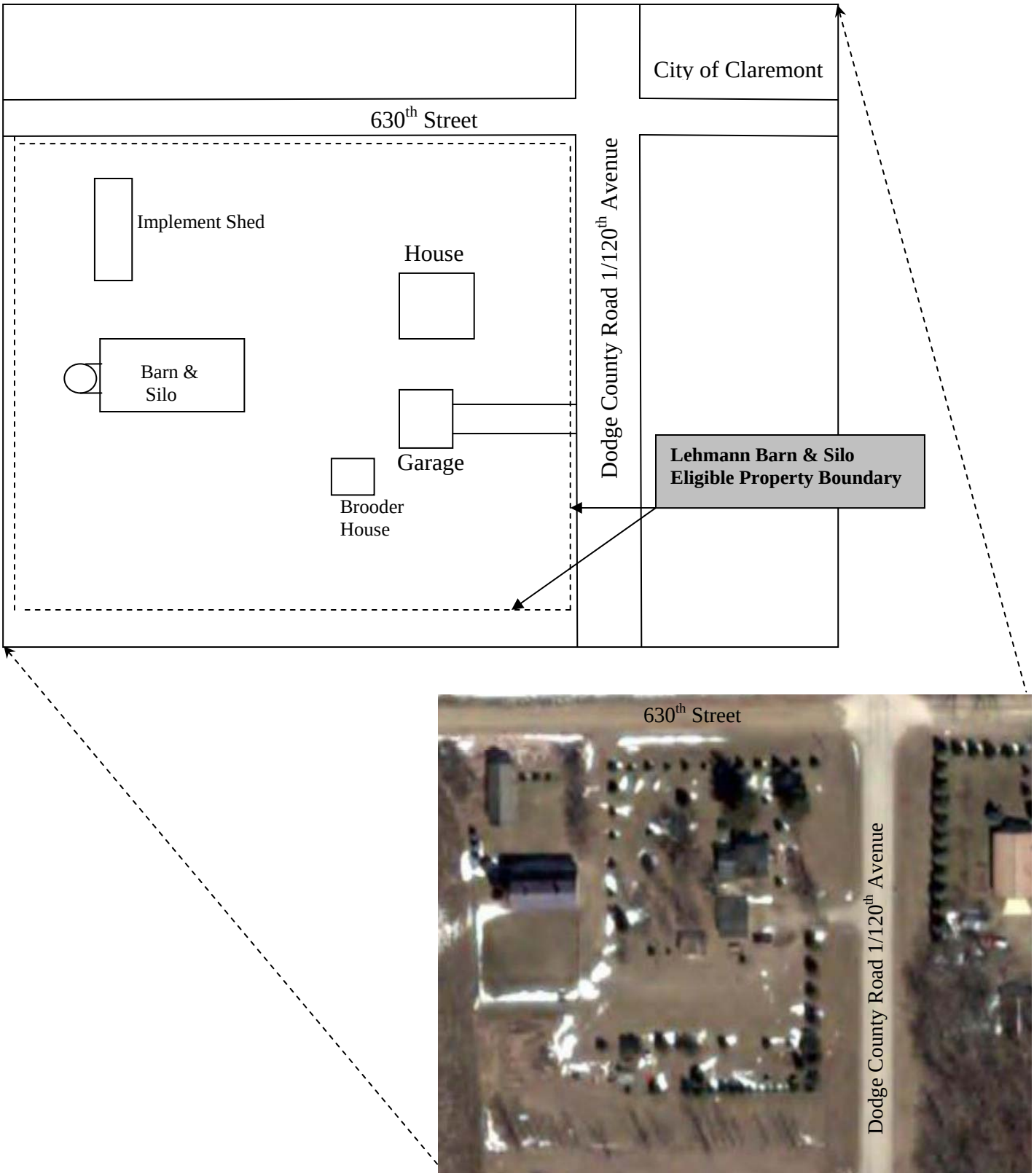
Location and Size

The Lehmann Farmstead is located on the west side of Dodge County Road 1/120th Avenue and immediately south of 630th Street, in Section 32 of Claremont Township, in Dodge County. The size of the parcel and eligible land is approximately 3.4 acres. Since publication of the Draft Section 4(f) Evaluation, the recommended boundary of the NRHP-eligible property has been expanded to include the entire building site and not just the area around the barn and silo (see Figure 5).

Ownership and Type of Section 4(f) Property

The Lehmann Farmstead is privately owned. The barn and silo and associated land are considered Section 4(f) resources because they are historic structures eligible for listing on the NRHP.

Figure 5 – Lehmann Farmstead (barn & silo)



Function of Available Activities on the Property

The site of the barn and silo is a single-family rural residential farmstead.

Description and Location of All Existing and Planned Facilities

The site is located on the west side of Dodge CSAH 1 and immediately south of 630th Street. The building layout of the farmstead is depicted on the insert map in Figure 5. There are no known planned facilities associated with the barn/silo or farmstead.

Access

A private driveway onto Dodge CSAH 1/120th Ave provides access to the site.

Relationship to other Similarly Used Lands in the Vicinity

Numerous other single-family rural residential sites are located in the vicinity of the Lehmann Farmstead. According to the *Phase I and II (Identification and Evaluation) Investigation of Historic Structures Along Highway 14 Between Owatonna and Dodge Center Report*, November 2007, there is one other historic farm site and a railroad corridor within an approximate one-mile radius of the Lehmann Farmstead that are eligible for listing on the NRHP.

Applicable Clauses Affecting the Ownership

The Lehmann Farmstead, including the barn and silo, is privately owned.

Unusual Characteristics of the Section 4(f) Property That Either Reduce or Enhance the Value of All or Part of the Property

The Lehmann Farmstead barn and silo meet the farm study Criterion C guidelines (structure embodying the distinctive characteristics of a type, period, or method of construction) as a fairly well-preserved example of a turn of the century barn with timber-frame construction.

The Lehmann Farmstead does not appear to be associated with an important event or broad pattern of history (Criterion A), or an important person (Criterion B). Furthermore, the entire Lehmann Farmstead does not meet the guidelines for Criterion C eligibility due to loss of integrity including the removal of several agricultural livestock buildings and the addition of several post-1960 elements.

Impacts to the Lehmann Farmstead (barn & silo)

Under the preferred alternative (Alternative 3 - South Bypass Alignment) the highway improvements will require acquisition of the farmstead and removal of the barn and silo. Figure A6, located in Appendix A of the Final EIS, illustrates the impacts to the Lehmann Farmstead.

Avoidance Alternatives

Alternative 1 (No-Build) - This alternative would avoid any impacts to the Lehmann farmstead barn and silo. However, this alternative does not address the project purpose and need objectives.

Alternative 2 (Existing Alignment) – This alternative would avoid any direct impacts to the Lehmann farmstead barn and silo. However, this build alternative was not

identified as the preferred alternative, for the reasons described in 'Description of the Proposed Action' section above.

Alternative 3 (South Bypass Alignment) – several design options for the preferred alternative were considered to avoid impacts to the Lehmann farmstead barn and silo and to bypass the City of Claremont to the south. These options were coordinated through the Claremont City Council, Claremont Planning Commission, and Claremont Town Board and included the following:

- Shift the highway alignment south of the Lehmann Farmstead. This avoidance option would require acquisition of additional right-of-way to accommodate the new highway corridor, would create greater impacts to surrounding farmland, and would directly impact an existing cemetery.
- Shift the highway alignment north of the Lehmann Farmstead. Three northern alignment shift options were previously considered as part of the Draft EIS. These design options were not identified as part of the preferred alternative because they would require acquisition of additional residential properties located north of 630th Street in the City of Claremont, would potentially encroach upon several known high risk contaminated sites (including an old City Dump), and would adversely impact the City of Claremont's future plans for development in the southern portion of the community.

Potential Measures to Minimize Harm to the Lehmann Farmstead

To minimize harm and mitigate impacts to the Section 4(f) property, Mn/DOT has been working with the SHPO and a Memorandum of Agreement (MOA) has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A). In summary, the mitigation measures include preparation of a Minnesota Historic Property Record. The historical narrative will be prepared and made available to county and local historical societies for their use in the interpretation of historical farmsteads. Mitigation for right-of-way acquisition will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and 49 CFR Part 24.

Coordination

The Mn/DOT Cultural Resource Unit has met several times with SHPO to discuss the Historic property impacts, including the Lehmann Farmstead, to define impacts, and determine mitigation measures. A MOA has been executed that describes the impacts to the historic resource, as well as the agreed upon mitigation measures (see Attachment A).

Conclusion

Based upon the above considerations, it is determined there is no feasible and prudent alternative to the use of land occupied by the Lehmann Farmstead, and the proposed action includes all possible planning to minimize harm to the Lehmann Farmstead resulting from such use.

LEAST OVERALL HARM ANALYSIS Of ALTERNATIVES THAT USE SECTION 4(f) PROPERTY

Numerous alternatives were studied as part of the Highway 14 project development process, including during the project scoping phase and as part of the Draft EIS. As previously explained, two "build" alternatives (Alternatives 2 – Existing Alignment and Alternative 3 – South Bypass Alignment) were studied in the Draft EIS and Draft section 4(f) Evaluation after alternatives that were not feasible and prudent were eliminated. After weighing the 'least overall harm' factors identified in 23 C.F.R. § 774.3(c), FHWA concludes that Section 4(f) impacts are not substantially different among the build alternatives. Therefore, factors other than Section 4(f) impacts were taken into account in selecting a preferred alternative from among the two build alternatives under consideration.

Least Overall Harm Analysis

The following Section 4(f) properties were identified as potentially impacted by the "build" alternatives studied in the Draft EIS.

- Winona and St. Peter Railroad Corridor
- Burlington, Cedar Rapids and Northern Railroad Corridor
- Minnesota Central Railroad Corridor
- Westside/Memorial Park and Henning Park
- Kaplan Woods Park
- Arendts Farmstead
- Lehmann Farmstead
- Kent Farmstead
- Sanford Farmstead
- Nelson Farmstead
- Homeyer Farm
- Pichner Farmstead
- Dunker Farmstead
- Thompson Farmstead
- A. and R. Kasper Farmhouse

Many of the resources are privately owned properties that have been determined eligible for listing on the NRHP and are therefore considered Section 4(f) properties.

Ability to Mitigate Adverse Impacts

The impacts to the Homeyer Farm would occur under both build alternatives considered in the Draft EIS. Under the preferred alternative, access to the Homeyer Farm building site will remain unchanged. However, access to farmland located on the south side of the railroad corridor will be affected. Impacts to the Homeyer Farm will be minimized by locating the new highway corridor immediately adjacent to the railroad right-of-way, thus eliminating the potential for any remnant strips of land falling between the highway and rail line. This design minimizes the impacts on the amount of farmland and operations of remaining farmland associated with the Homeyer Farm. Access to the farmland located south of the railroad corridor and future highway corridor will be provided from Steele CSAH 16, which is proposed to be a grade separated overpass of both the rail line and highway.

As previously discussed, impacts to the Dunker Farmstead and Lehmann Farmstead were also determined to be unavoidable. The preferred alternative requires the acquisition of both the Dunker Farmstead and Lehmann Farmstead. Mitigation for right-of-way acquisition will follow the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and 49 CFR Part 24.

Other mitigation for impacts to the Homeyer Farm, Dunker Farmstead, and Lehmann Farmstead will be provided consistent with the executed Section 106 MOA for this project (see Appendix B of the Final EIS).

Severity of Remaining Harm After Mitigation

All the build alternatives would create unavoidable impacts to the Homeyer Farm. However, mitigation measures have been identified in cooperation with the agencies, with jurisdiction over the Section 4(f) resource, to minimize the severity of harm to the activities, attributes, and features of the resource.

The Dunker Farmstead and Lehmann Farmstead are anticipated to be directly impacted (i.e. land acquisition and relocation) under the preferred alternative (Alternative 3). Alternative 2 would have no direct impacts to the Dunker Farmstead or Lehmann Farmstead. However, Alternative 2 would have substantial impacts on the Sanford Farmstead (another NRHP-eligible property) including land acquisition and building relocation.

Historical narratives for the Dunker Farmstead and Lehmann Farmstead will be prepared following the Minnesota Historical Property Records requirements. This action was determined to be the appropriate mitigation measure through the process of completing a Section 106 MOA. These historical narratives will be prepared and made available to county and local historical societies for their use in the interpretation of historical farmsteads. This completes the mitigation requirements for impacts to the Homeyer Farm, Dunker Farmstead, and Lehmann Farmstead.

Significance of Section 4(f) Property

Relative significance of the Section 4(f) properties was not a factor in determining the extent of impact to each resource. All three properties are associated with privately owned farmsteads that have been determined NRHP-eligible.

Views of Officials with Jurisdiction

The views of officials from SHPO, counties (Steele and Dodge), cities (Owatonna, Claremont, and Dodge Center), and townships (Owatonna, Havana, Claremont, Wasioja) and other local, state, and federal agencies were taken into account in decisions regarding which alternatives to considered in the Draft EIS and in identifying the preferred alternative.

The three Section 4(f) properties are privately owned farmsteads that have been determined to be eligible for listing on the NRHP. Therefore, the SHPO and federal Advisory Council on Historic Preservation have been consulted with regarding potential impacts and mitigation strategies affecting these facilities. See Appendix B of the Final EIS for a copy of the executed MOA.

Degree to Which the Alternative Meets the Purpose and Need

The preferred alternative (Alternative 3) best meets the transportation needs associated with the Highway 14 study area. The preferred alternative provides transportation system improvements designed to solve travel safety, congestion/mobility, and system continuity needs identified in Section 2.0 of the Draft EIS and the Draft Section 4(f) Evaluation.

Magnitude of Adverse Impacts to Non-Section 4(f) Resources After Mitigation

As documented in the Draft Section 4(f) Evaluation, Alternative 2 would directly impact two farmsteads and Alternative 3 would directly impact three farmsteads that were determined eligible for listing on the NRHP and therefore considered Section 4(f) properties. Although the preferred alternative (Alternative 3) has a greater number of Section 4(f) property impacts, this alternative was identified as the preferred due to the reasons previously discussed in this Final Section 4(f) Evaluation and in Section 3.1 of the Final EIS.

No non-Section 4(f) resources protected by federal regulations (e.g., wetlands, T& E species, farmland) would be impacted by this project as a result of Section 4(f) avoidance alternatives; therefore, magnitude of impacts to other federally-protected resources was not a consideration minimizing harm to Section 4(f) resources.

Substantial Difference In Cost

The Highway 14 Draft EIS provided cost estimates for the build alternatives, ranging from $143 - $150 million for Alternative 3 and $165 - $168 million for Alternative 2. However, avoidance/mitigation of Section 4(f) impacts was not a substantial factor in the cost differences among alternatives; therefore, cost was not a factor in determining the magnitude of Section 4(f) impacts among the Draft EIS alternatives.

Least Overall Harm Alternative

The presence of rural developments/farmsteads, the DM&E rail line, prime farmland, wetlands, and other natural communities within the Highway 14 study area creates a unique challenge when considering the construction of a four-lane rural freeway. The avoidance and mitigation strategies employed on this project are the result of a careful balance between minimizing impacts to the natural environment and the need to protect/minimize impacts to important man-made features.

Although Alternative 3 proposes impacts to three Section 4(f) resources, the parties with jurisdictional or other interests in the resources have agreed that adequate measures were taken to minimize harm to the resources (to the extent possible), and that the mitigation measures are acceptable compensation for impacts.

Based upon the above analysis, Alternative 3 has been determined to best meet the purpose and need for the proposed project and to cause the least overall harm when considering impacts to Section 4(f) properties (including mitigation) as well as other social, economic and environmental resources.