



August 2016

MINNESOTA DEPARTMENT OF TRANSPORTATION

Environmental Assessment

I-35W North Corridor Preliminary Design Project

Cities: Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington, Blaine, Lino Lakes

Counties: Anoka and Ramsey

MnDOT proposes construction of new I-35W MnPASS lane from south of County Road C in Roseville to Lexington Avenue in Blaine (approximately 10 miles). The project also includes pavement rehabilitation from County Road C to north of Sunset Avenue in Lino Lakes and construction of an auxiliary lane on westbound Highway 10 from I-35W to 93rd Lane. This EA documents the social, environmental and economic impacts of the proposed project.

State Project 6284-172

ENVIRONMENTAL ASSESSMENT

**Interstate Highway 35W (I-35W)
State Project: 6284-172
Minnesota Project: IMDI35W(002)**

**I-35W from South of County Road C to North of Sunset Avenue (County Road 53)
(Highway Reference Point: 023+00.400 to 034+00.978)
Cities: Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington,
Blaine, Lino Lakes**

**Counties: Anoka, Ramsey
Section(s), Township(s), Range(s):
Sections 5, 8, 9, T29N, R23W
Sections 4, 5, 8, 9, 16, 17, 21, 28, 29, 32, T30N, R23W
Sections 13, 23, 24, 26, 27, 34, T31N, R23W
Sections 18, 19, T31N, R22W**

Submitted pursuant to 42 U.S.C. 4332 and M. S. 116D

**By the
U.S. Department of Transportation
Federal Highway Administration and
Minnesota Department of Transportation
for**

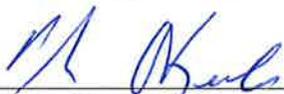
I-35W North Corridor Preliminary Design Project

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Recommended for approval by:



MnDOT – Metro Program Delivery Office Director



Date

Approved by:

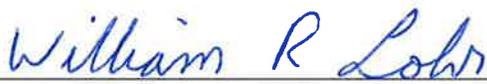


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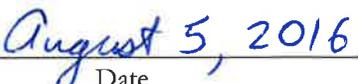


Date

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FHWA – Project Development Engineer



Date

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Acronyms and Abbreviations

AADT	Average Annual Daily Traffic
AC	Advisory Committee
ACD	Anoka County Ditch
ADT	Average Daily Traffic
AIS	Aquatic Invasive Species
ARJD	Anoka/Ramsey Judicial Ditch
BSA	Bank Service Area
CMP	Corridor Management Plan
CR	County Road
CRU	Cultural Resources Unit
CSAH	County State Aid Highway
DNR	Department of Natural Resources
EA	Environmental Assessment
EAW	Environmental Assessment Worksheet
EIS	Environmental Impact Statement
EIU	Environmental Investigations Unit
EJ	Environmental Justice
E.O.	Executive Order
FHWA	Federal Highway Administration
FOF&C	Findings of Fact & Conclusion
FONSI	Finding of No Significant Impact
GPL	General Purpose Lane
HOV	High Occupancy Vehicle
IAMR	Interstate Access Modification Request

JD	Jurisdictional Determination
LEP	Limited English Proficiency
LGU	Local Government Unit
LOS	Level of Service
LRTPP	Long Range Transportation Policy Plan
MEQB	Minnesota Environmental Quality Board
MHSIS	Metropolitan Highway System Investment Study
MnDOT	Minnesota Department of Transportation
MnSHIP	Minnesota State Highway Investment Plan
MPCA	Minnesota Pollution Control Agency
MPH	Miles Per Hour
M.S.	Minnesota Statute
MSAT	Mobile Source Air Toxics
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NEPA	National Environmental Policy Act
OES	Office of Environmental Stewardship
RCD	Ramsey County Ditch
RCWD	Rice Creek Watershed District
RTMC	Regional Transportation Management Center
SEE	Social, Economic, Environmental1
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
S.P.	State Project
STIP	State Transportation Improvement Program
TH	Trunk Highway
TIP	Transportation Improvement Program

USACE U.S. Army Corps of Engineers
U.S.C. United States Code
USFWS U.S. Fish and Wildlife Service
vpd Vehicles Per Day
WCA Wetland Conservation Act

Chapter 1 Project Summary

1.1 The I-35W North Corridor

The I-35W North Corridor is a major freeway that connects the growing north suburban area of the Twin Cities to greater Minnesota, downtown Minneapolis, and beyond. The construction limits of the I-35W North Corridor Preliminary Design Project extend from south of the County Road (CR) C interchange at the south end of the corridor to north of the Sunset Avenue (CR 53) overpass at the north end of the corridor. The I-35W corridor passes through eight developed and developing communities, including: Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington, Blaine, and Lino Lakes. The location of the I-35W North Corridor Project is illustrated in Figure A-1, Appendix A and in Figure A-2, Appendix A.

The Minnesota Department of Transportation (MnDOT) and its partners have completed several transportation studies over the past 10+ years that involved the I-35W North corridor. These studies include the *I-35 Corridor Management Plan (CMP)*, the MnPASS System Studies Phase 1 and Phase 2, and the *Metropolitan Highway System Investment Study (MHSIS)*. Most recently, the 2013 *I-35W North Managed Lanes Study* recommended construction of an additional lane on I-35W from Roseville to Blaine. The I-35W North Corridor Preliminary Design Project is a continuation of these previous efforts, advancing the project one step further towards construction.¹

1.2 Project Purpose and Need

1.2.1 Need for the I-35W North Corridor Project

MnDOT has identified a number of factors justifying the need for the I-35W North Corridor Project. These factors include pavement conditions, mobility, travel time reliability, and transit and carpool advantages.

- Pavement Conditions. Pavement conditions along the project segment of I-35W are deteriorating and reaching the end of their service life.

¹ The planning history for the project is described in detail in the Alternatives Evaluation Report in Appendix C.

- Highway Mobility. Traffic congestion exists on a number of segments along I-35W during the morning and afternoon each day. This congestion is expected to increase, both in terms of location and duration, as additional growth and development occurs in communities throughout the project corridor. An increase in congestion reduces mobility for all users along the I-35W corridor.
- Travel Time Reliability. As traffic congestion increases, travel times and the variability in travel times on I-35W are also likely to increase. This requires all travelers to increase their “planning time” with each trip to account for potential delays.
- Transit and High Occupancy Vehicle (HOV) Advantages. There are a number of operational challenges associated with the existing transit advantages (bus-only shoulders) on the I-35W project corridor. With increasing congestion and slower travel speeds, transit travel times are anticipated to increase in the future. Other than the ramp meter bypass lanes at Lexington Avenue and 95th Avenue, there are no other time saving advantages along the I-35W project corridor that would encourage carpooling.

Other goals and objectives have also been identified for the project to help guide the alternatives development and evaluation processes. These include consistency with state and region transportation plans, consideration of lower-cost/high-benefit mobility improvements, and consideration of bridge preservation activities.

1.2.2 Purpose of the I-35W North Corridor Project

The purpose of this project is to provide a long-term, sustainable option for all highway users (transit and non-transit) that improves pavement conditions, increases mobility, improves travel time reliability, and maintains or improves transit advantages on I-35W between TH 36 in Roseville and CSAH 23 in Lino Lakes. State and regional transportation plan policies and strategies, including goals and objectives to better use existing and future infrastructure investments, will also help guide the project development process.

1.3 Alternatives

1.3.1 Alternatives Studied in the EA

MnDOT studied three build alternatives and a no build alternative (i.e., do-nothing alternative) to identify the alternative that best addresses the project needs while minimizing impacts to the social, natural, and cultural

environment. This process was closely coordinated with the Project's Advisory Committee (AC), a group that included representatives from municipal and county governments, Metropolitan Council, Federal Highway Administration (FHWA) and the I-35W North Corridor Coalition.

This Environmental Assessment (EA) documents the evaluation of the three build alternatives and the No Build Alternative. Each of the build alternatives includes constructing a new travel lane on northbound and southbound I-35W in the center median between CR C and Lexington Avenue. However, the difference between the three build alternatives lies in the use and operation of the additional northbound and southbound travel lane. The three build alternatives include:

- General Purpose Lane Alternative: the general purpose lanes would have no restrictions on use, and would be accessible to all vehicles at all times of the day.
- High Occupancy Vehicle (HOV) Lane Alternative: Use of the HOV lane would be restricted to carpools, transit vehicles, and motorcycles during morning and afternoon peak periods. No fee would be charged to carpoolers to use the HOV lane. During off-peak periods, the HOV lane would have no restrictions on use.
- MnPASS Lane Alternative: the MnPASS lanes would be priced and restricted to carpools, toll paying vehicles, transit vehicles, and motorcycles during morning and afternoon peak periods. These MnPASS lanes would operate similar to existing MnPASS lanes in the Twin Cities. During off-peak hours, the MnPASS lane would have no restrictions on use.

MnDOT used a two-step evaluation process to identify a preferred alternative for the project. The first step included evaluating the performance of the build alternatives to address the project need. This first step also included a social, environmental, and economic (SEE) screening of the build alternatives. In the second step, a range of spot mobility improvements were identified and evaluated to further ease congestion, remove existing bottlenecks, and improve safety on the I-35W corridor.

1.3.2 Preferred Alternative

The alternatives development and review process resulted in the identification of a Preferred Alternative that best addresses the transportation need for the project and is consistent with additional goals and objectives identified for the project. Social, economic, and environmental topics were also considered as part of the alternatives development and review; however,

these topics were not a differentiating factor in identifying the Preferred Alternative.

MnDOT identified the MnPASS Lane Alternative as the Preferred Alternative. The I-35W North Corridor Project Preferred Alternative consists of the following features:

- Rehabilitate the pavement on I-35W (unbonded concrete overlay) from CR C in Roseville to north of Sunset Avenue in Lino Lakes, including interchange ramps;
- Construct a new northbound and southbound MnPASS lane within the center median of I-35W from CR C in Roseville to Lexington Avenue in Blaine;
- Reconstruct the I-35W Bridges at the BNSF Railway and CR C in Roseville and at CR I in Shoreview and Mounds View; and
- Construct auxiliary lanes at various locations along the I-35W project corridor, construct an auxiliary lane along westbound TH 10 west of I-35W, and construct buffer lanes at the I-694 interchange.

1.4 Impacts and Mitigation

A summary of anticipated impacts, benefits, and proposed mitigation measures is provided in Table 1.1, beginning on page 1-6.

1.5 Opportunities for Public Comment

Comments on this document may be submitted in writing or verbally at the informational meeting/public hearing during the public comment period (for details, see the transmittal letter distributing this EA). Send written comments to:

Richard Dalton, Environmental Coordinator
MnDOT Metro District
1500 West County Road B2
Roseville, MN 55113
Richard.Dalton@state.mn.us

The EA and additional project information can be found on MnDOT's website at

<http://www.dot.state.mn.us/metro/projects/i35wroseville/index.html>.

Hard copies of the EA are available at the MnDOT Metro District Office, city halls in the project area, the following public library locations, and other locations identified in the EA transmittal letter:

Ramsey County

MnDOT Metro District (Water's Edge)
1500 West County Road B2
Roseville, MN 55113

Roseville City Hall
2660 Civic Center Drive
Roseville, MN 55113

Ramsey County Library – Roseville
2180 North Hamline Avenue
Roseville, MN 55113

New Brighton City Hall
803 Old Highway 8
New Brighton, MN 55112

Ramsey County Library – New Brighton
400 10th Street NW
New Brighton, MN 55112

Arden Hills City Hall
1245 West Highway 96
Arden Hills, MN 55112

Mounds View City Hall
2401 County Road 10
Mounds View, MN 55112

Ramsey County Library – Mounds View
2576 County Road 10
Mounds View, MN 55112

Shoreview City Hall
4600 Victoria Street N
Shoreview, MN 55126

Ramsey County Library – Shoreview
4570 North Victoria Street
Shoreview, MN 55126

Anoka County

Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

Anoka County Library - Northtown
711 County Road 10 NE
Blaine, MN 55434

Lexington City Hall
9180 Lexington Avenue
Lexington, MN 55014

Circle Pines City Hall
200 Civic Heights
Circle Pines, MN 55014

Anoka County Library – Centennial
100 Civic Heights Circle
Circle Pines, MN 55014

Lino Lakes City Hall
600 Town Center Parkway
Lino Lakes, MN 55014

Table 1.1 Summary of Impacts/Benefits and Mitigation Measures

Issue Area	Anticipated Impact/Benefit	Mitigation Measures
Land Use	None.	None.
Geology, Soils, and Topography/Land Forms	None.	<ul style="list-style-type: none"> • Implement erosion control best management practices (BMPs). • Prepare Stormwater Pollution Prevention Plan (SWPPP).
Stormwater	<ul style="list-style-type: none"> • Increase in impervious surface area (approximately 33 acres). • Increase in runoff volumes and rates. 	<ul style="list-style-type: none"> • Conveyance by storm sewer and ditches. • Treatment and rate control provided in existing and proposed stormwater ponds, infiltration/filtration basins, dry detention basins, and ditch treatment areas.
Water Appropriation	<ul style="list-style-type: none"> • May be required for culvert extension at Rice Creek. 	<ul style="list-style-type: none"> • Prepare SWPPP and dewatering plan. • Obtain groundwater appropriations permit if needed for construction
Aquatic Resources	<ul style="list-style-type: none"> • Approximately 22.6 acres impacted. 	<ul style="list-style-type: none"> • See Section 404 Permit – Clean Water Act at end of Table 1.1.
Contamination/Hazardous Materials/Wastes	<ul style="list-style-type: none"> • 37 high risk sites and 74 medium risk sites in project area. 	<ul style="list-style-type: none"> • Conduct Phase II Environmental Site Assessments (underway). • Prepare Construction Contingency Plans. • Regulated materials managed according to MnDOT special provisions.
Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)	<ul style="list-style-type: none"> • May encounter Blanding's turtles during construction. • Work required in one DNR Public Water – Rice Creek. • Rare plant species occurrences near 95th Avenue interchange 	<ul style="list-style-type: none"> • If turtles are encountered, implement measures identified in the DNR's <i>Blanding's Turtle Fact Sheet</i>. • Reestablish native vegetation along Rice Creek, if disturbed. • Install new highway fence near Rice Creek to prevent turtles and other wildlife from entering highway right of way (mound bottom of fence). • Follow spawning restriction timeframes (no in-water work from March 15 to June 15). • Plant species surveys to be completed summer 2016.
Historic Properties	No historic properties within project area.	None.

Issue Area	Anticipated Impact/Benefit	Mitigation Measures
Visual	None.	Implement measures identified in visual quality plan.
Air	None.	None.
Noise	<ul style="list-style-type: none"> • Daytime standards exceeded at 827 receptors • Nighttime standards exceeded at 2,031 receptors • L10 levels approach or exceed federal noise abatement criteria at 372 receptors. 	<ul style="list-style-type: none"> • Eight proposed noise walls. • Five existing noise walls unchanged.
Transportation	<ul style="list-style-type: none"> • Reduction in congestion compared to No Build Alternative. • Secondary safety benefits with spot mobility improvements. • MnPASS lane benefits (increase in travel time reliability, travel time savings, increase in person throughput). 	None.
Cumulative Potential Effects	None.	None.
Social Impacts (Income Equity)	<ul style="list-style-type: none"> • Some differences in user experience in general purpose lanes. Negative effects to low-income groups not anticipated. 	None.
Relocation and Right of way	<ul style="list-style-type: none"> • 0.05 acre permanent easement. • 0.9 acre temporary easement. • No relocations. 	None.
Environmental Justice	<ul style="list-style-type: none"> • No disproportionately high or adverse effects to low-income or minority populations 	None.
Pedestrians and Bicyclists	<ul style="list-style-type: none"> • Temporary closure of trails crossing I-35W at CR C and CR I during construction 	Detour routes will be provided during construction.
Accessibility	<ul style="list-style-type: none"> • Accessibility upgrades will occur at three ramp terminal intersections 	None.
Section 7 – Endangered Species Act	<ul style="list-style-type: none"> • May affect but will not cause prohibited incidental take of the northern long-eared bat 	None.

Issue Area	Anticipated Impact/Benefit	Mitigation Measures
Section 4(f) – Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites	<ul style="list-style-type: none"> • Temporary occupancy of the Rice Creek Water Trail 	<ul style="list-style-type: none"> • Install culvert extension during low-flow period. • Signage at CR I trailhead and along Rice Creek notifying of closure. • Communication with Ramsey County Parks. Notification of closure on County and Watershed District websites.
Section 6(f) – Land and Water Conservation Act	None.	None.
Section 106 – Historic and Archaeological Resources	None.	None.
Transit	<ul style="list-style-type: none"> • Improved reliability and travel times with MnPASS Lanes. • Increase in bus travel time savings (23 minutes) 	None.
Farmland Protection Policy Act	None.	None.
Floodplains	Longitudinal and transverse encroachments into six floodplain areas.	<ul style="list-style-type: none"> • Compensatory storage provided within MnDOT right of way in areas hydraulically connected to floodplains. • See floodplain mitigation locations in Figure A.17 through A.29, Appendix A.
Section 404 – Clean Water Act	<ul style="list-style-type: none"> • Aquatic resource impacts (approximately 22.6 acres). Reduced from over 40 acres under base design. See Section 5.11 for a discussion of sequencing (avoidance, minimization, and mitigation). • Jurisdiction to be determined in coordination with the USACE. 	<ul style="list-style-type: none"> • Purchase USACE-approved wetland bank credits. • Minimum 2:1 replacement ratio for wetland impacts. • Replacement ratios for impacts to other aquatic resources to be determined.
Economics	None.	None.

Issue Area	Anticipated Impact/Benefit	Mitigation Measures
Construction Impacts	<ul style="list-style-type: none"> • Dust generated during construction. • Construction noise. • Vibrations associated with bridge and sheet piling. • Ground disturbance/tree removal. • Temporary easement/rights of entry (properties north of CR H and CR I) • Temporary use of frontage road north of CR I • Traffic disruptions during construction. Lane closures will be required during each construction season. • Temporary closure of trail crossings under I-35W at CR C and CR I. 	<ul style="list-style-type: none"> • MnDOT standard BMPs for dust control. • MnDOT standard specifications for construction noise. High-impact noise prohibited during nighttime hours. • Prepare building susceptibility studies for any properties potentially affected by vibrations. • Prepare SWPPP. Implement erosion control BMPs during construction. Implement in-water BMPs during construction. • Transportation Management Plan (TMP) prepared during final design. • Pedestrian and bicycle detour routes will be provided for trail closures at CR C and CR I. • MnDOT will coordinate with the cities and counties in the corridor regarding detours and construction phasing.
Indirect Effects	None.	None.

Chapter 2 Report Purpose

This Environmental Assessment (EA) provides background information for the proposed road construction project on Interstate Highway 35W (I-35W) in the cities of Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington, Blaine, and Lino Lakes. This document includes a discussion of:

- Need for the proposed project;
- Alternatives considered;
- Environmental impacts and mitigation; and,
- Agency coordination and public involvement.

This EA was prepared as a part of the National Environmental Policy Act (NEPA) process and state environmental review process to fulfill requirements of both 42 USC 4332 and M.S. 116D. At the federal level, the EA provides sufficient environmental documentation to determine the need for an Environmental Impact Statement (EIS) or that a Finding of No Significant Impact (FONSI) is appropriate. At the state level, the EA provides sufficient environmental documentation to determine the need for a state EIS or that a Negative Declaration is appropriate.

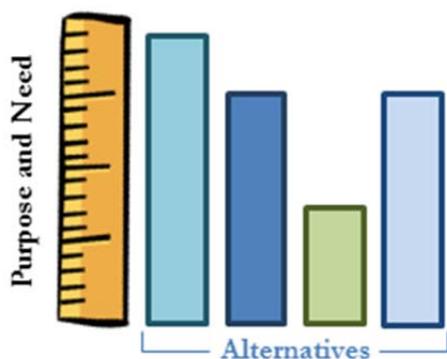
At the state level, this document also serves as an Environmental Assessment Worksheet (EAW). Minnesota Rules, part 4410.1300 allows the EA to take the place of the EAW form, provided that the EA addresses each of the environmental effects identified in the EAW form. This EA includes each of the environmental effects identified in the EAW form.

The Minnesota Department of Transportation (MnDOT) is the proposer and Responsible Governmental Unit (RGU) for this project. Preparation of an EAW is mandatory under Minnesota Rules, part 4410.4300 (see Section 5.4).

This document is made available for public review and comment in accordance with the requirements of 23 CFR 771.119 (d) and Minnesota Rules, part 4410.1500 through 4410.1600.

Chapter 3 Purpose and Need for the Project

3.1 What are Purpose and Need?



The purpose and need for a project define the transportation problems that the project will address. The purpose and need also act as “measuring sticks” for the project alternatives, helping determine to what extent each alternative meets each project need. Alternatives that do not meet the purpose of the project are not studied further. Alternatives that address the purpose and need are studied in greater detail, taking into account other project goals and potential impacts (both positive and negative). Assuming all other concerns are equal, if one alternative meets the project

purpose and need better than another, then that alternative may be identified as the Preferred Alternative.

The purpose and need also help decide where a project will begin and end by defining the “who, what, where, when and why” of the transportation needs. This allows an agency to create alternatives that satisfy the project’s needs.

The Purpose and Need has been divided into the following four sections to help the reader better understand how the transportation problem has been solved.

1. Background Information (Section 3.2): the Background Information Section summarizes existing conditions and discusses previous studies related to the I-35W project corridor.
2. Project Need (Section 3.3): the Project Need section discusses transportation problems identified within the project area.
3. Additional Goals and Objectives (Section 3.4): the Additional Goals and Objectives describe other considerations that will help guide the project development process.
4. Purpose Statement (Section 3.5): the Purpose Statement identifies the objective for addressing the project’s needs that are to be met by project alternatives, and also summarizes other objectives that were taken into account when developing and evaluating alternatives.

Detailed information regarding the purpose and need for the project, including figures and data tables, is included in the *I-35W North Corridor Preliminary Design Purpose and Need Report* in Appendix B.

3.2 Background Information

3.2.1 Existing Characteristics

The I-35W north corridor generally carries commuter-oriented traffic from northern Twin Cities suburbs to employment centers in Minneapolis or neighboring communities, destinations further south on I-35W, or east and west along I-94. This results in peak period travel patterns predominately southbound in the morning and northbound in the afternoon. Existing daily traffic volumes range from approximately 42,400 vehicles per day (vpd) at the north end of the corridor near Sunset Avenue to approximately 127,000 vpd in the I-35W/TH 10 commons area.

Refer to Chapter 4 for a description of existing lane configurations on I-35W from TH 36 to CSAH 23.

Three express bus routes currently operate on I-35W between the northern suburbs and downtown Minneapolis/University of Minnesota. Nearly 90 express buses travel the I-35W corridor on a daily basis during peak periods. There are also five park and ride lots in the project area, the largest being the 95th Avenue Park and Ride in Blaine, which has nearly 1,500 parking spaces. Bus only shoulders are designated on northbound I-35W between CR C and 95th Avenue, and on southbound I-35W between CSAH 23 and 8th Street, north of the Mississippi River and downtown Minneapolis.

3.2.2 Previous Studies

MnDOT has documented mobility and congestion problems on the I-35W project corridor in previous studies, including the *Interstate 35 Corridor Management Plan (CMP)* and the *I-35W North Managed Lanes Corridor Study*. These studies describe existing operational problems and causes of congestion on the I-35W corridor, as well as anticipated future increases in congestion.

3.3 Project Need

This section of the EA discusses the transportation needs in the project area. These needs were identified based on findings from previous studies, MnDOT's *2014 Pavement Conditions Report*, the *Metropolitan Freeway System 2014*

Congestion Report, and traffic studies completed as part of this project. The primary needs examined include:

- Pavement conditions;
- Highway mobility;
- Travel time reliability; and
- Transit and high occupancy vehicle (HOV) advantages.

Additional project considerations include:

- Consistency with state and regional transportation plans; and
- Opportunities to use existing infrastructure investments through low-cost/high-benefit solutions to localized areas of congestion, and bridge preservation needs.

3.3.1 Pavement Conditions

Existing Conditions

The existing pavement on I-35W from north of TH 36 to Sunset Avenue is experiencing deterioration. A bituminous overlay on I-35W from south of CR C to CR J was completed in 2002. A pavement repair project from I-694 to just north of Lake Drive was completed in 2010. This pavement is nearing the end of its remaining service life. A bituminous mill and overlay project will be completed from CR C to I-694 in 2016 (S.P. 6284-166). This project's anticipated service life is approximately 10 years, after which time additional pavement rehabilitation will likely be needed to maintain a quality ride.

The I-35W corridor from CR H to Sunset Avenue consists of a bituminous overlay constructed on top of a continuously reinforced concrete pavement (CRCP). Bituminous overlays were last completed on I-35W through the TH 10 commons area in 2002 and north of the TH 10 commons area in 1999. CRCP pavements tend to break-up unevenly, creating poor surface pavement conditions which require frequent maintenance and patching. Indeed, the segment of I-35W north of CR H is characterized by numerous asphalt patches. MnDOT is working towards rehabilitating CRCP pavements throughout the Twin Cities Metropolitan Area.

MnDOT Pavement Condition Indices

MnDOT uses four indices for reporting pavement conditions. Each of these indices describes a different aspect of pavement conditions used to rank pavement sections and predict the need for future pavement maintenance

and rehabilitation. These indices include Ride Quality Index (RQI), Surface Rating (SR), Pavement Quality Index (PQI), and Remaining Service Life (RSL). For each index, pavement sections are ranked in one of three categories: poor condition, fair condition, and good condition. The I-35W corridor is generally ranked from fair to good condition for each of these categories. Refer to the Purpose and Need Report in Appendix B for additional information regarding MnDOT pavement condition indices and pavement index maps for the Twin Cities Metropolitan Area, including the I-35W North project corridor.

3.3.2 Highway Mobility

Metropolitan Freeway System 2014 Congestion Report

MnDOT's *Metropolitan Freeway System 2014 Congestion Report* was reviewed as part of the evaluation of existing congestion on the I-35W corridor. This report is prepared annually and documents segments on the freeway system that experience recurring congestion. For the *Metropolitan Freeway System 2014 Congestion Report*, congestion is defined as traffic flowing at speeds of less than or equal to 45 miles per hour (MPH).

Figures from the *Metropolitan Freeway System 2014 Congestion Report* are included in the Purpose and Need Report in Appendix B. During the morning period (5:00 a.m. to 10:00 a.m.), the southbound direction of I-35W shows one to two hours of congestion from north of I-694 through the TH 10 interchange to 95th Avenue, and less than one hour of congestion from 95th Avenue to Lexington Avenue. During the afternoon peak period (2:00 p.m. to 7:00 p.m.), the northbound direction of I-35W shows one to two hours of congestion north of TH 36, two to three hours of congestion approaching I-694, and less than one hour of congestion north of I-694 through the TH 10 interchange.

Traffic Analysis

MnDOT completed an operational traffic analysis as part of the I-35W North Corridor Preliminary Design Project. This analysis used the CORSIM computer model to simulate travel lane conditions during the morning and afternoon peak hour and peak period conditions. Existing conditions and future (year 2040) models were developed. The year 2040 model included programmed highway improvements and year 2040 forecast traffic volumes. Southbound I-35W was evaluated for the morning peak period (6:00 a.m. to 9:00 a.m.), and northbound I-35W was evaluated for the afternoon peak period (3:00 p.m. to 6:00 p.m.).

The CORSIM modeling results are measured in terms of a Level of Service (LOS). LOS is a grading system ranging from A to F, which describes the range of congestion on the freeway. The LOS for freeway segments, which has only interchange access, is based on vehicle density, as measured in vehicles per lane per hour. Higher speeds can be maintained on the freeway at lower densities (e.g., LOS A to C). As densities increase to LOS E and F, speeds will decrease and fluctuate greatly.

Figures illustrating the operational traffic analysis results for existing and future 2040 No Build Alternative conditions are included in the Purpose and Need Report in Appendix B. Results for the 2040 No Build Alternative morning and afternoon peak periods are summarized below.

Southbound I-35W (Morning Peak Period)

Under the 2040 No Build Alternative, the I-35W/TH 10 commons segment becomes the dominant bottleneck for southbound I-35W. Congestion (LOS F) on southbound I-35W is projected to spill back from the I-35W/TH 10 commons area to the CSAH 23 interchange, lasting for more than three hours during the morning. This bottleneck reduces the volume of traffic that can get through to the I-694 interchange. As a result, congestion on southbound I-35W south of the I-694 interchange under the 2040 No Build Alternative is projected to be similar to existing conditions.

Northbound I-35W (Afternoon Peak Period)

Congestion and poor levels of service (LOS F) are anticipated on northbound I-35W under the 2040 No Build Alternative from TH 36 in Roseville, through the I-694 interchange, to the westbound TH 10 exit in Shoreview and Mounds View. These conditions are anticipated throughout the entire afternoon peak period (3:00 p.m. to 6:00 p.m.), and extend beyond the afternoon peak period for the segment of northbound I-35W from TH 36 to the westbound TH 10 entrance. Poor operations and congestion on northbound I-35W under the 2040 No Build Alternative are caused by a lack of capacity, weaving between entering and exiting traffic at the I-694 interchange, and vehicles entering northbound I-35W from the westbound TH 10 entrance ramp.

Travel Times

Increasing congestion corresponds with increasing travel times. Peak period travel times on southbound I-35W between CSAH 23 in Lino Lakes and the I-35W Mississippi River Bridge in Minneapolis under the 2040 No Build Alternative are projected to increase from the existing travel time of 20

minutes to 33 minutes (an increase of 13 minutes). Peak period travel times on northbound I-35W between the I-35W Mississippi River Bridge in Minneapolis and CSAH 23 in Lino Lakes under the 2040 No Build Alternative are projected to increase from the existing travel time of 21 minutes to 42 minutes (an increase of 21 minutes).

Express buses, even when using the bus-only shoulders to bypass congestion, are also projected to experience an increase in travel times. Express bus travel times under the 2040 No Build Alternative are projected to increase from 20 minutes to 26 minutes (an increase of 6 minutes) on southbound I-35W during the morning peak period. Express bus travel times under the 2040 No Build Alternative are projected to increase from 21 minutes to 33 minutes (an increase of 12 minutes) on northbound I-35W during the afternoon peak period.

3.3.3 Travel Time Reliability

Day-to-day travel time is expected to vary more under the 2040 No Build Alternative than existing conditions. MnDOT completed a travel time reliability analysis as part of the I-35W North Corridor Preliminary Project. The purpose of this analysis was to develop an estimate of the typical variability in corridor-level travel times, taking into account congestion as well as non-recurring events such as weather and traffic incidents. The typical range in morning and afternoon peak period travel times on I-35W from Blaine to Minneapolis currently varies from just over 15 minutes to nearly 40 minutes. As the extent and duration of congestion increases on I-35W, the variability in travel times is also anticipated to increase. This results in poor travel time reliability, and increases the amount of “planning time” that all travelers must incorporate into their trips to account for potential delays.

Travel time reliability is also a key feature for transit service. The Purpose and Need Report in Appendix B includes schedule deviation times and on-time performance percentages for three express bus routes on I-35W from spring 2015. These metrics indicate that express bus riders experience some variability in travel times today. This variability is likely to increase in the future with additional congestion on the I-35W corridor.

3.3.4 Transit and HOV Advantages

Transit Advantages

Bus-only shoulders are currently located on northbound and southbound I-35W between Minneapolis and Lino Lakes. The southbound I-35W bus-only shoulder begins south of CSAH 23 and extends to 8th Street in

Minneapolis. The northbound I-35W bus-only shoulder begins near 8th Street in Minneapolis and extends to 95th Avenue in Blaine. Bus-only shoulders provide an advantage for transit by allowing buses to bypass congestion. Bus-only shoulders can only be used when speeds in the general purpose lanes are less than 35 MPH. Bus speeds are limited to no more than 15 MPH greater than the adjacent vehicles in the general purpose lanes. Operational challenges associated with the I-35W bus-only shoulder use includes: speed restrictions; narrow shoulders; inclement weather; poor pavement conditions; merging traffic onto I-35W; and vehicles blocking the shoulders.

As I-35W becomes more congested, along with the operational challenges noted above, it will become more difficult to maintain reasonable transit times along the corridor. Round-trip express bus travel times are estimated to increase by approximately 20 minutes from existing conditions to the 2040 No Build Alternative.

HOV Advantages

Carpooling helps reduce congestion by encouraging travel by modes other than single-occupant vehicles. There are no existing time saving advantages within the project area that would encourage carpooling other than the two existing HOV bypass ramps entering southbound I-35W at Lake Drive and 95th Avenue.

3.4 Additional Project Considerations

Other objectives considered in project development are summarized below.

3.4.1 Consistency with State and Regional Transportation Plans

Minnesota State 20-Year Highway Investment Plan (2014-2033)

Optimization strategies described in the *Minnesota State 20-Year Highway Investment Plan 2014-2033* (MnSHIP) to address mobility concerns will help guide the alternatives development and evaluation process and include:²

- Leverage existing resources for all available transportation modes in order to optimize mobility;
- Emphasize reliable and predictable travel options;

² Minnesota Department of Transportation. December 2013. *Minnesota Go: 20-Year State Highway Investment Plan, 2014-2033*. Chapter 5. 20-Year Investment Plan. Twin Cities Mobility. Optimization Strategies, pp. 116-117.

- Develop congestion performance measures that reflect the goals and objectives sought through the current congestion management strategies (i.e., active traffic management, spot mobility improvements, MnPASS priced managed lanes, strategic capacity enhancements); and
- Focus mobility investments on projects that address multiple objectives.

Metropolitan Council 2040 Transportation Policy Plan

The Metropolitan Council's *2040 Transportation Policy Plan* (TPP) includes numerous strategies and actions to address how the Twin Cities Metropolitan Region will achieve its transportation goals and objectives. These strategies, as it relates to the I-35W North Corridor Preliminary Design Project, are listed in the Purpose and Need Report in Appendix B. Strategies for addressing highway capacity issues focus on transportation management technologies first, followed by spot mobility improvements MnPASS system expansion and finally strategic capacity expansion. Only after MnPASS has been evaluated and found not feasible should general purpose lane capacity be considered. Opportunities to coordinate roadway improvements with improvements to maintain or improve transit travel times and reliability should also be considered.

3.4.2 Use of Existing and Future Infrastructure Investments

Lower-Cost/High-Benefit Philosophy

The lower cost/higher-return-on-investment philosophy emphasizes mobility improvements that provide bottleneck relief, improve roadway geometrics, and address safety hazards while maximizing the use of existing pavement and highway right of way. Opportunities for incorporating design elements that use existing and future infrastructure investments to address localized areas of congestion, consistent with the lower cost/high benefit approach, should be considered in project development where feasible.

Bridge Preservation

There are 23 bridges located along the I-35W project corridor between TH 36 and CSAH 23. Many of these bridges are nearing the end of their useful lives and are in need of replacement or rehabilitation. MnDOT has recently completed or has programmed replacement of several of the existing bridges spanning over the project segment of I-35W, including bridges at CR E2, CR F, CSAH 96, and CR H.

The need for bridge preservation activities along the I-35W project corridor is independent of the pavement, mobility, reliability, and transit advantage needs described above. However, opportunities for addressing bridge preservation where feasible and where future cost savings could potentially be realized should be considered in project development.

3.5 Project Purpose

The purpose of this project is to provide a long-term, sustainable option for all highway users (transit and non-transit) that improves pavement conditions, increases mobility, improves travel time reliability, and maintains or improves transit advantages on I-35W between TH 36 in the City of Roseville and CSAH 23 in the City of Lino Lakes. In addition, state and regional transportation plan policies and strategies, including goals and objectives to better use existing and future infrastructure investments, will help guide project development.

Chapter 4 Alternatives Evaluation

This chapter of the EA summarizes the project termini, existing conditions, the alternatives evaluation process, alternatives evaluated for the project but rejected from further consideration, and alternatives that remain under consideration. The proposed project maintains I-35W in its current alignment. There are no alternatives to relocate the freeway, as this would have substantial social, environmental, and economic impacts.

Details regarding the alternatives decision-making process, including identification of a preferred alternative, are described in the *I-35W North Corridor Preliminary Design Alternatives Evaluation Report*, included with this EA in Appendix C.

The I-35W project corridor has been the subject of several previous transportation studies. The *MnPASS System Phase 1 and Phase 2 studies* identified I-35W as part of the future MnPASS system for the Twin Cities Metropolitan Area. The *Metropolitan Highway System Investment Study (MHSIS)* identified the I-35W north corridor as strong candidate for the MnPASS managed lane system. Most recently, the *2013 I-35W North Managed Lanes Corridor Study* (2013 Corridor Study) concluded that an additional travel lane was needed on I-35W to address mobility, operations, and reliability needs.



The I-35W North Corridor Preliminary Design Project is a continuation of the 2013 Corridor Study. Using the findings of the 2013 Corridor Study as a guide, three Build Alternatives were developed and evaluated as part of the I-35W North Corridor Preliminary Design Project. These Build Alternatives include construction of an additional northbound and southbound travel lane in the center median of I-35W between CR C and Lexington Avenue; however, the Build Alternatives differ from one another with respect to the use and operation of the additional lane. In addition to the additional travel lane, all three of the Build Alternatives also include pavement rehabilitation on I-35W between CR C in Roseville and Sunset Avenue in Lino Lakes.

The three Build Alternatives are listed below. A description and figure illustrating the lane configuration of the Build Alternatives are included in Sections 4.4 and 4.5 of this EA.

- General Purpose Lane Alternative
- High Occupancy Vehicle (HOV) Lane Alternative
- MnPASS Lane Alternative

The social, economic, and environmental impacts resulting from the three Build Alternatives would be the same for such items as right of way, wetlands, water quality, wildlife, etc. However, the tolling of single-occupant vehicles (SOV's) would be different among the Build Alternatives. An evaluation of tolling impacts and MnPASS lane benefits is included in the Environmental Justice sections 6.3.5 and 6.3.6.

4.1 Project Termini and Construction Limits

The southern project terminus is the TH 36 interchange in Roseville. The northern project terminus is the CSAH 23 interchange in Lino Lakes (see Figure A.3, Appendix A). The project termini were identified based on the pavement, mobility and operations, reliability, and transit advantage needs on the I-35W project corridor described in Chapter 3. The physical construction limits of the project extend from south of the I-35W bridges over CR C and the BNSF Railway in Roseville to north of the Sunset Avenue overpass over I-35W in Lino Lakes.

Logical termini are defined as 1) the rational endpoints for review of proposed transportation improvements, and 2) rational endpoints for review of potential environmental impacts.

Additional information describing the rationale for identifying TH 36 and CSAH 23 as the **logical termini** for the project can be found in the *I-35W North Corridor Preliminary Design Project Logical Termini Report*, available for review from the MnDOT Project Manager (see contact information in Chapter 7).

4.2 I-35W North Corridor Existing Conditions

The existing number of lanes on I-35W varies from TH 36 in Roseville to CSAH 23 in Lino Lakes. The portion of the corridor south of the TH 10 east ramps is a six-lane roadway (three lanes for northbound I-35W and three lanes for southbound I-35W) with a center median ditch separating the northbound and southbound travel lanes (see Figure 4.1). The I-35W/TH 10 commons area in Arden Hills and Mounds View is an eight-lane roadway; however, there is no center median ditch separating the northbound and southbound lanes. The northbound and southbound lanes in the I-35W/TH 10 commons area are separated by a concrete median barrier (see Figure 4.2). North of the TH 10 west ramps, I-35W transitions back to a six-lane

roadway with a center median ditch separating the northbound and southbound lanes. Continuing north of the CR J/Lake Drive interchange, I-35W transitions to a four-lane roadway with a center median ditch separating the northbound and southbound lanes (see Figure 4.3).

Figure 4.1 I-35W Existing Lane Configuration (Six-Lane Roadway with Center Median Ditch)

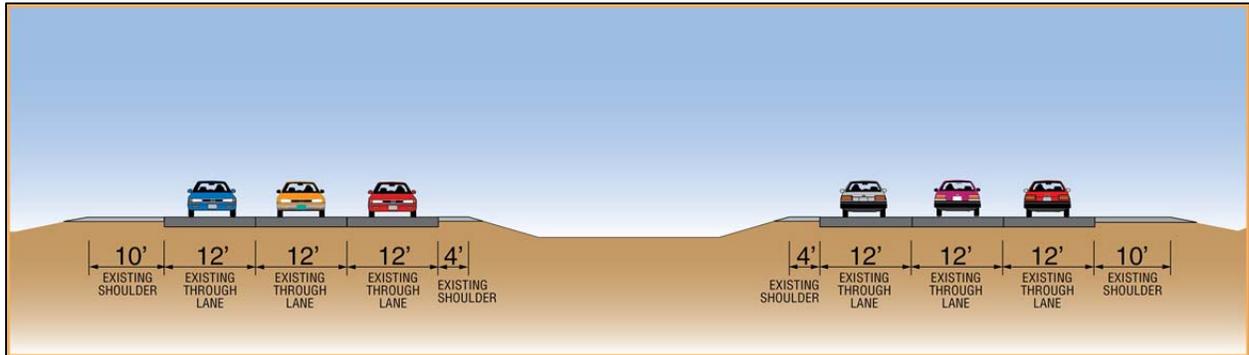


Figure 4.2 I-35W Existing Lane Configuration (Eight-Lane Roadway with Concrete Median Barrier)

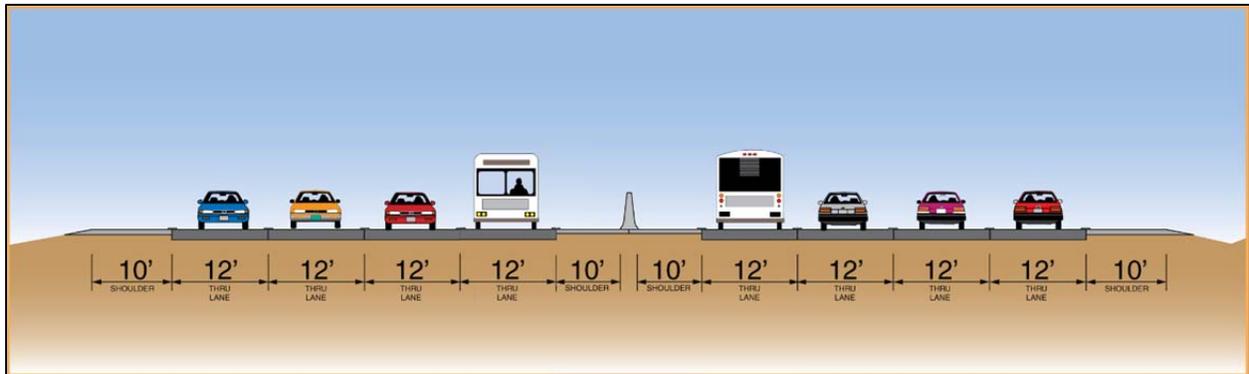
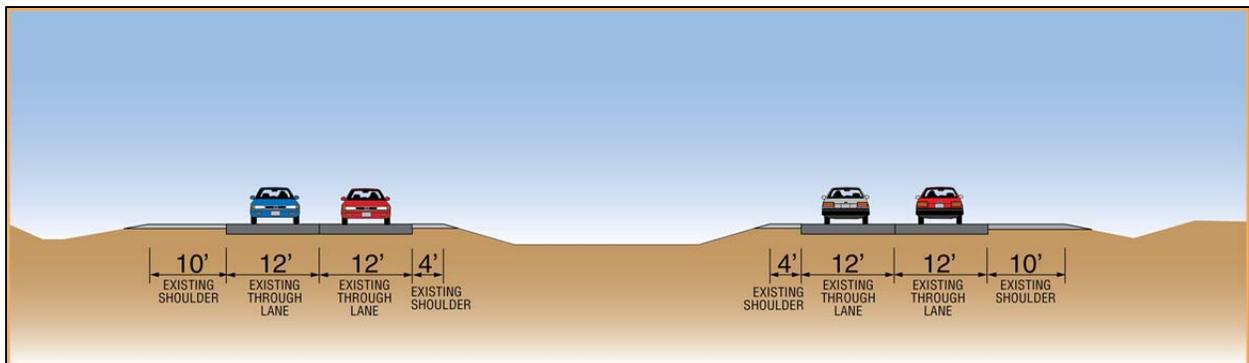


Figure 4.3 I-35W Existing Lane Configuration (Four-Lane Roadway with Center Median Ditch)



4.3 Alternatives Evaluation Process

4.3.1 Summary of Alternatives Evaluation Process

The alternatives evaluation process for the I-35W North Corridor Preliminary Design Project was divided into two phase as summarized below. The alternatives evaluation process is described in detail in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C. A diagram depicting the alternatives evaluation process is also illustrated in Figure 5-1 in the *I-35W North Corridor Final Project Alternatives Report*.

- **Phase I** compared the No Build Alternative and the three Build Alternatives and consisted of the following steps:
 - Compared alternatives based on their relative ability to address the transportation needs for the project (see Section 4.4.2, pages 4-7 and 4-8).
 - Compared alternatives based on their ability to address additional project goals and objectives (see Section 4.4.2, pages 4-8 and 4-9).
 - Compared social, economic, and environmental (SEE) impacts using a screening exercise (see Section 4.4.2, pages 4-9 through 4-12).
 - Identified a recommended alternative to be carried forward into the second phase of the analysis (see Section 4.4.2, page 4-12).
- **Phase II:** In the second phase, the geometric layout was identified for the recommended alternative (see Section 4.4.3 on pages 4-12 through 4-14). This process included an evaluation of spot mobility improvements, consistent with the lower-cost/high-benefit philosophy described in state and regional transportation plans.
- **Preferred Alternative Layout:** At the end of the second phase, a preferred alternative layout was identified that includes the recommended pavement rehabilitation, lane addition, and spot mobility improvements. The preferred alternative layout is included in this EA.

The project's Advisory Committee (AC) reviewed the alternatives evaluation process. Chapter 7 includes additional information regarding the purpose of the AC and a list of the AC members. The AC met regularly throughout the alternatives evaluation process to review and discuss the results of traffic studies and other alternatives evaluation tasks. A series of public outreach meetings were also held to involve underrepresented low-income and

minority communities in the project area in the alternatives development and evaluation process. Additional information on these outreach activities can be found in the *I-35W North Preliminary Design Fall 2015 Public Engagement Report* in Appendix J.

4.3.2 Alternatives Evaluation Criteria

The No Build Alternative and Build Alternatives (General Purpose Lane, HOV Lane, and MnPASS Lane) were evaluated against the following criteria listed in Table 4.1. These criteria are directly related to the needs for the project and additional goals and objectives described in Chapter 3.

Table 4.1 Alternatives Evaluation Criteria (Transportation Need and Additional Goals/Objectives)

Evaluation Criteria	Measurement
1) Pavement Conditions	Qualitative Assessment
2) Mobility (Freeway Operations) ⁽¹⁾	Freeway Level of Service (LOS) (Percent of Lane-Mile-Hours at LOS D or Better)
3) Mobility (Corridor Throughput) ⁽¹⁾	Total Peak Hour Person Throughput (People/Hour)
4) Mobility (Travel Time Savings) ⁽¹⁾	<ul style="list-style-type: none"> • Peak Hour Travel Times (minutes) • Delay Per User (minutes)
5) Travel Time Reliability ⁽¹⁾	On Time Performance (Peak Period Person Trips)
6) Transit and HOV Advantages ⁽¹⁾	<ul style="list-style-type: none"> • Transit Ridership (number of riders per day) • Bus Travel Time Savings (minutes) • HOV Advantages (Yes/No)
7) Consistency with State and Regional Transportation Plans	Qualitative Assessment (More/Less Consistent with State and Regional Transportation Plans)
8) Fiscal Considerations and Project Cost	Benefit-Cost Analysis (Incremental Benefit-Cost Ratio)

⁽¹⁾ Mobility, travel time reliability, and transit and HOV advantages evaluation criteria and measurements based on future (year 2040) conditions for the No Build and Build Alternatives.

The alternatives evaluation process considered a range of SEE evaluation factors addressed in the federal EA and state EAW form. The purpose of the SEE evaluation was to identify any substantive differences (i.e., order of magnitude) in potential impacts among the Build Alternatives.

4.4 Alternatives Evaluation Results

The following summarizes the three build alternatives considered as part of the I-35W North Corridor Preliminary Design Project and the results of the alternatives evaluation process. The *I-35W North Corridor Final Project Alternatives Report* (see Appendix C) contains detailed information regarding the evaluation process, evaluation results, and rationale for identifying a preferred alternative.

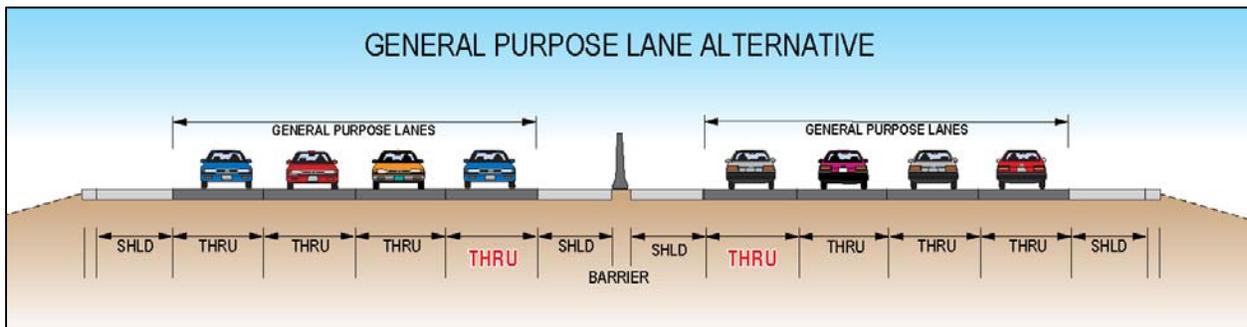
4.4.1 Description of the Build Alternatives

The three build alternatives studied are summarized below. Each of the build alternatives included construction of a new travel lane on northbound and southbound I-35W in the center median between TH 36 and Lexington Avenue. However, the difference between the three build alternatives lies in the use and operation of the additional travel lane

General Purpose Lane Alternative

The additional lanes would operate as general purpose lanes. Use of the additional general purpose lanes would be the same as the existing lanes on I-35W; there would be no restrictions on automobiles, motorcycles, transit or freight vehicles. Figure 4.4 illustrates the lane configuration of the General Purpose Lane Alternative.

Figure 4.4 General Purpose Lane Alternative

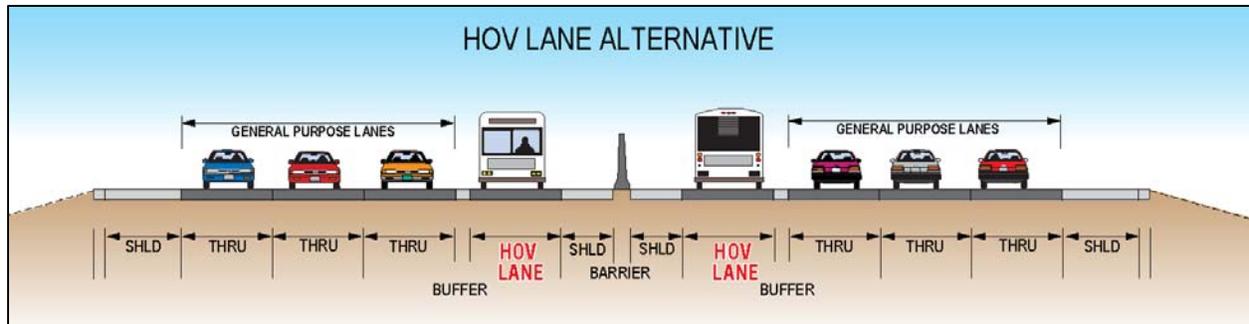


High Occupancy Vehicle (HOV) Lane Alternative

The additional lanes would operate as HOV lanes. Use of the HOV lanes would be restricted to high occupancy vehicles (i.e., more than one occupant within a vehicle), transit vehicles, and motorcycles during the morning and afternoon peak periods. During off-peak hours, the HOV lane would have no restrictions on use, and would operate as general purpose lanes. No fee

would be charged to high occupancy vehicles to use the HOV lane. Figure 4.5 illustrates the lane configuration of the HOV Lane Alternative.

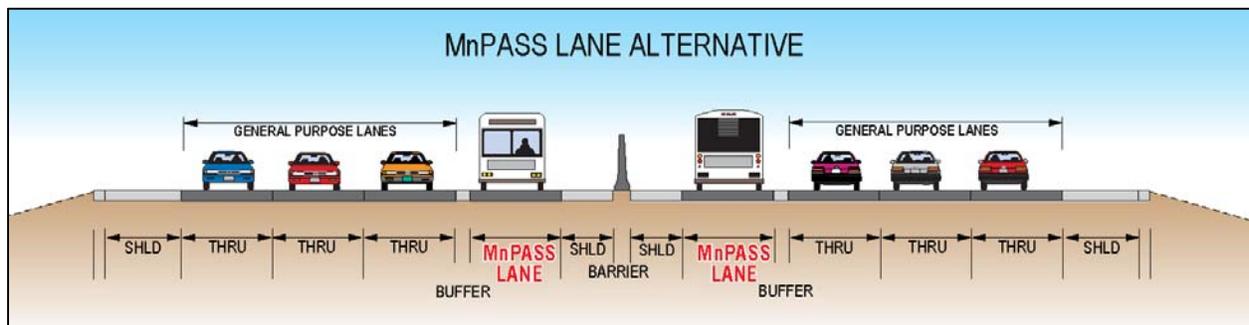
Figure 4.5 HOV Lane Alternative



MnPASS Lane Alternative

The additional lanes would operate as MnPASS lanes. Use of the MnPASS lanes would be restricted to HOV's, transit vehicles, motorcycles and toll paying single-occupancy vehicles during morning and afternoon peak periods. The MnPASS lanes would operate similar to the existing MnPASS lanes on I-394 west of Minneapolis, I-35W south of Minneapolis, and I-35E north of St. Paul. During off-peak hours, the MnPASS lane would have no restriction on use, and operate as general purpose lanes. Figure 4.6 illustrates the lane configuration of the MnPASS Lane Alternative.

Figure 4.6 MnPASS Lane Alternative



4.4.2 Build Alternatives Evaluation (Phase I)

Project Needs

The *I-35W North Corridor Final Project Alternatives Report* in Appendix C includes detailed information regarding the Build Alternatives evaluation methodology and analysis results. The first step in this process was a

technical analysis of the ability of the Build Alternatives to address the need for the project. Forecast (year 2040) traffic volumes were developed for the Build Alternatives. Freeway models were then developed for each of the Build Alternative using the forecast traffic volumes, and the performance of the Build Alternatives was evaluated against the transportation need criteria identified in Table 4.1.

The Build Alternatives evaluation results are summarized below. Each of conclusions listed below are based on year 2040 forecast conditions for the Build Alternatives. The Build Alternatives evaluation process concluded that:

- The Build Alternatives would not eliminate all congestion on the I-35W corridor;
- The Build Alternatives would have similar levels of service (LOS) performance;
- The MnPASS Lane Alternative would provide a 10 percent increase in person throughput compared to the General Purpose Lane Alternative and a nearly five percent increase in person throughput compared to the HOV Lane Alternative. The MnPASS Lane Alternative also provides a congestion-free, reliable option for single-occupant vehicles, HOVs, and transit;
- The MnPASS Lane Alternative would provide the best combined travel time savings in terms of delay per user compared to the General Purpose Lane Alternative and HOV Lane Alternative;
- The MnPASS Lane Alternative would provide better travel time reliability. The MnPASS Lane Alternative would provide a 75 percent increase in the number of free-flow peak period person trips compared to the General Purpose Lane Alternative, and a 17 percent increase in the number of free-flow peak period person trips compared to the HOV Lane Alternative.
- The HOV Lane Alternative and MnPASS Lane Alternative would provide transit advantages compared to the General Purpose Lane Alternative. An approximately 10 percent increase in transit ridership was identified for the HOV Lane Alternative and MnPASS Lane Alternative compared to the General Purpose Lane Alternative. Bus travel time savings under the HOV Lane Alternative and MnPASS Lane Alternative were also projected to be more than double the bus travel time savings under the General Purpose Lane Alternative with bus-only shoulders.

Other Project Goals and Objectives

Section 3.4 summarizes additional goals and objectives identified for the project. The No Build Alternative and Build Alternatives were reviewed against the policies and strategies identified in MnDOT's *20-Year Highway Investment Plan* and the Metropolitan Council's *2040 Transportation Policy Plan*. The cost effectiveness of the Build Alternatives was also evaluated using a benefit-cost analysis. The key findings of the other project goals and objectives assessment are summarized below.

- The General Purpose Lane Alternative is less consistent with policies and strategies that emphasize reliable and predictable travel options. The General Purpose Lane Alternative also does not provide any additional transit advantages beyond the existing bus-only shoulders and ramp meter by-pass lanes.
- Strategies in the Metropolitan Council's 2040 Transportation Policy Plan to address highway capacity issues note that general purpose lanes should only be considered if MnPASS lanes are determined to be not feasible. MnPASS lanes are feasible on the I-35W project corridor.
- The HOV Lane Alternative and MnPASS Lane Alternative are more consistent with policies and strategies to provide congestion-free, reliable travel options. The HOV Lane Alternative and MnPASS Lane Alternative are also more consistent with strategies to expand transit advantages.
- The benefit-cost analysis results for the Build Alternatives are summarized in Table 4.2. The benefit-costs analysis methodology is described in detail in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C. The benefit-cost ratio of the HOV Lane Alternative was less than 1.0, indicating that the transportation benefits were relatively small in comparison to the additional capital costs of the HOV Alternative. The benefit-cost ratio of the MnPASS Lane Alternative was 8.1. The transportation benefits of the MnPASS Lane Alternative in terms of travel time improvements and increases in person throughput exceed the additional costs (i.e., signing, toll readers, MnPASS operations) to operate the additional lanes as MnPASS lanes. Therefore, the MnPASS Lane Alternative is the most cost effective build alternative.

Table 4.2 Benefit Cost Analysis Results

	2040 General Purpose Lane Alternative	2040 HOV Lane Alternative	2040 MnPASS Lane Alternative
Benefit Cost Ratio versus General Purpose Lane Alternative	Basis of Comparison	0.16	8.1

SEE Screening Evaluation

The *I-35W North Corridor Final Project Alternatives Report* in Appendix C includes the results of the social, economic, and environmental (SEE) screening analysis of the Build Alternatives. The findings of this screening exercise are summarized below in Table 4.3. With the exception of the income equity topic (see discussion below), the identified SEE topics were not a differentiating factor contributing to the evaluation of the Build Alternatives.

Table 4.3 Social, Economic and Environment Impact (SEE) Screening Summary

SEE Topics	Potential for Substantive Differences Among Build Alternatives
Farmland	No. Project area does not include farmland.
Fish/Wildlife/Vegetation	No differentiating impacts anticipated.
Threatened and Endangered Species	No. Blanding’s turtle mitigation measures regardless of Build Alternative.
Visual Quality	No. Project located within existing freeway corridor.
Floodplains	No differentiating impacts anticipated. Potential impacts to Rice Creek floodplain and other floodplain areas regardless of Build Alternative.
Wetlands	No differentiating impacts. Fill impacts to median wetlands regardless of Build Alternative.
Stream or Water Body Modification	Rice Creek culvert extension required regardless of Build Alternative.
Water Quality	No. Project will comply with water quality requirements regardless of Build Alternative.
Air Quality	No. Forecast traffic volumes vary, but not anticipated to result in substantial air quality impacts.
Traffic Noise	No. Traffic noise impacts mitigated following MnDOT Noise Policy requirements regardless of Build Alternative.
Contaminated Properties or Materials	No. Project will manage any contaminated materials in accordance with regulatory requirements regardless of Build Alternative.

SEE Topics	Potential for Substantive Differences Among Build Alternatives
Traffic Detours/Maintenance of Traffic	No. Temporary lane closures and traffic disruptions regardless of Build Alternative.
Access Control	No. Project does not change access to I-35W.
Land Use	No impacts. Project located within existing freeway corridor.
Relocations	No relocations anticipated.
Right of way	No. Build Alternatives located within existing MnDOT right of way.
Section 4(f) Involvement	No impacts anticipated.
Section 6(f) Involvement	No impacts anticipated.
Economics	No negative impacts anticipated.
Environmental Justice	Low-income and minority populations within study area. No disproportionately high and adverse impacts anticipated.
Income Equity (Tolling)	Potential differences in user experience in general purpose lanes under MnPASS Lane Alternative compared to other Build Alternatives. Negative impacts to low-income groups not anticipated.
Social and Community	Project within existing freeway corridor. No new barriers to community cohesion.
Bikeways and Pedestrians	No bikeways or pedestrian facilities on I-35W.
Transit	Travel time savings benefits under HOV Lane Alternative and MnPASS Lane Alternative.
Cultural Resources	No historic properties within project area.

The income equity topic considers whether low-income groups would be negatively affected by tolls. The income equity evaluation focuses on the user experience under the MnPASS Lane Alternative because this is the only alternative that includes peak period tolls. The No Build Alternative, General Purpose Lane Alternative, and HOV Lane Alternative do not include peak period tolls. Therefore, the purpose of the income equity evaluation is to assess whether the MnPASS Lane Alternative would place an unequal burden on low-income single-occupancy vehicle drivers with less ability to pay the MnPASS lane peak period tolls.

MnDOT hosted a round of public engagement activities in fall 2015 to involve low-income and minority groups in the project development process. Part of this public engagement included a survey to better understand travel choices and opinions regarding MnPASS. Survey results are described in detail in the *I-35W North Preliminary Design Fall 2015 Public Engagement Report* in Appendix J.

As part of the income equity assessment, MnDOT compared the traffic operations in the general purpose lanes under the MnPASS Lane Alternative to the No Build Alternative, the General Purpose Lane Alternative, and the HOV Lane Alternative. The goal of this comparison was to consider the user experience in the general purpose lanes under the MnPASS Lane Alternative (the only alternative considered that includes a peak period toll) to the other alternatives. The results of this comparison are included in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C (see Table 6.10 in Section 6.1.3).

Negative effects to low-income groups are not anticipated under the MnPASS Lane Alternative. While the traffic operations comparison indicates that there may be some differences in user experiences in the general purpose lanes under the MnPASS Lane Alternative, the aggregate benefits of the MnPASS Lane Alternative outweigh these differences (see “Project Needs” discussion above). The findings of the income equity assessment are described below (see also Section 6.1.3 in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C).

- The general purpose lanes under the MnPASS Lane Alternative were observed to perform better than the No Build Alternative and similar to the HOV Lane Alternative.
- The general purpose lanes under the General Purpose Lane Alternative were observed to perform better than the MnPASS Lane Alternative under some criteria (percent of lane-miles at LOS D or better, a.m. peak hour travel times); however, under other criteria (p.m. peak hour travel times), the general purpose lanes under the MnPASS Lane Alternative and General Purpose Lane Alternative were similar.
- Based on traffic modeling, traffic does not divert to other routes to avoid MnPASS Lane tolls. The additional capacity under all of the Build Alternatives results in traffic shifts from other freeway corridors and parallel arterial roadways to I-35W compared to the No Build Alternative. Indeed, traffic volume forecasts on I-35W under the MnPASS Lane Alternative are projected to be up to 9,700 vpd greater than the No Build Alternative.
- Although the sample size was relatively small, low-income residents that responded to the public engagement survey indicated some willingness to pay MnPASS tolls for predictable travel times and travel time savings (e.g., less than one to two dollars). However, respondents also indicated that they would be less likely to pay the MnPASS toll as the cost increases.

- The MnPASS Lanes operate as general purpose lanes, accessible to all users, approximately 90 percent of the time.
- No user is forced to pay a toll to use the I-35W general purpose lanes under any of the alternatives, including the MnPASS Lane Alternative.
- Users are not forced to use transit or carpooling to avoid tolls under any of the alternatives, including the MnPASS Lane Alternative.

Identification of a Recommended Alternative

Based on the results of the transportation needs evaluation, consideration of other project goals and objectives, and consideration of the SEE screening analysis results, **MnDOT identified the MnPASS Lane Alternative as the Recommended Alternative.** This decision was based on the following key factors (see also Table 6.11, Basis for Recommended Alternative Decision in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C):

- The MnPASS Lane Alternative best addresses the purpose and need for the project;
- The MnPASS Lane Alternative is the most cost-effective investment among the three Build Alternatives;
- The MnPASS Lane Alternative is consistent with state and regional transportation plan policies and objectives; and
- No substantive differences in potential SEE impacts were identified among the Build Alternatives.

4.4.3 Spot Mobility Improvements Evaluation (Phase II)

Following the identification of the MnPASS Lane Alternative as the recommended alternative, a range of potential spot mobility improvements were developed and evaluated. As described above, the MnPASS Lane Alternative would provide a congestion-free, reliable option for travelers on I-35W. However, some congestion would still be present during peak periods. The purpose of the spot mobility improvement analysis was to identify lower cost/high benefit improvements that would relieve bottlenecks, reduce congestion, and improve operations on I-35W.

Localized areas of congestion and poor traffic operations were identified based on traffic modeling completed for the MnPASS Lane Alternative. At locations where congestion was observed to occur, solutions (i.e., spot mobility improvements) were identified and modeled to evaluate their performance in relieving congestion. The identified spot mobility

improvements include (see also Figure 6.4, Spot Mobility Improvements Overview Map in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C):

- Improvement #1: extend four lanes on southbound I-35W across the CR C and BNSF Railway bridges to Cleveland Avenue.
- Improvement #2: southbound I-35W auxiliary lane between CR E2 and I-694.
- Improvement #3: southbound I-35W auxiliary lane between I-694 and CSAH 96.
- Improvement #4: two lane exit on southbound I-35W to eastbound TH 10 plus a southbound I-35W auxiliary lane from CR I to the eastbound TH 10 exit.
- Improvement #5: extend parallel deceleration lane on southbound I-35W at CR I.
- Improvement #6A: escape lane on southbound I-35W at westbound TH 10 exit.
- Improvement #6B: two lane entrance from CR J/Lake Drive, southbound I-35W auxiliary lane to westbound TH 10, escape lane at westbound TH 10 exit.
- Improvement #7: westbound TH 10 auxiliary lane west of I-35W to 93rd Lane.
- Improvement #8: northbound I-35W auxiliary lane between CSAH 96 and CSAH 10.
- Improvement #9A: northbound I-35W buffer lane between loop ramps at I-694.
- Improvement #9B: flyover ramp from northbound I-35W to westbound I-694.
- Improvement #10: eastbound TH 10 auxiliary lane between 93rd Lane and I-35W.
- Improvement #11: two-lane entrance ramp from westbound TH 10 and northbound I-35W auxiliary lane to westbound TH 10 exit.
- Improvement #12: northbound I-35W auxiliary lane between I-694 and CSAH 96.

The spot mobility improvements evaluation methodology is described in Section 6.2.2 of the *I-35W North Corridor Final Project Alternatives Report* in Appendix C. Spot mobility improvements were evaluated in isolation as well

as in combination with one another. Spot mobility improvements were evaluated based on three main criteria:

1. Achieve a successful opening of the I-35W MnPASS lanes;
2. Minimize future congestion impacts; and
3. Meet future I-35W corridor travel demand needs.

Some of the spot mobility improvements were observed to provide substantial improvements in congestion and operations, as well as safety benefits. Others were observed to result in little to no change in peak period congestion. Based on the findings of the spot mobility improvement evaluation, MnDOT identified the following improvements for inclusion with the recommended MnPASS Lane Alternative (in order of priority and anticipated timeframe for implementation) (see also Table 6.16, Recommended Spot Mobility Improvements in the *I-35W North Corridor Final Project Alternatives Report* in Appendix C):

- Improvement #1
- Improvement #7
- Improvement #11
- Improvement #4 Plus Auxiliary Lane³
- Improvement #9A and Improvement #12
- Improvement #2 and Improvement #3

While the spot mobility improvements were initially ranked in terms of their priority to achieve the goals identified above, MnDOT determined that all identified spot mobility improvements would be constructed concurrently with the MnPASS lane and pavement rehabilitation as one project.

4.5 Alternatives Considered but Rejected

Section 4.4 describes the process for identifying alternatives, including the rationale for rejecting alternatives. The rationale for identifying a preferred alternative is also summarized below in Section 4.6. The rejected alternatives include:

- General Purpose Lane Alternative
- HOV Lane Alternative

³ The proposed two-lane exit from southbound I-35W to eastbound TH 10 has been identified by MnDOT as a stand-alone improvement and will be constructed independent of the I-35W North Corridor Project. This project is anticipated for construction in 2018.

4.6 Alternatives under Consideration

There are two alternatives under consideration in this EA – the MnPASS Lane Alternative which will be referred to as the Preferred Alternative – and the No Build Alternative.

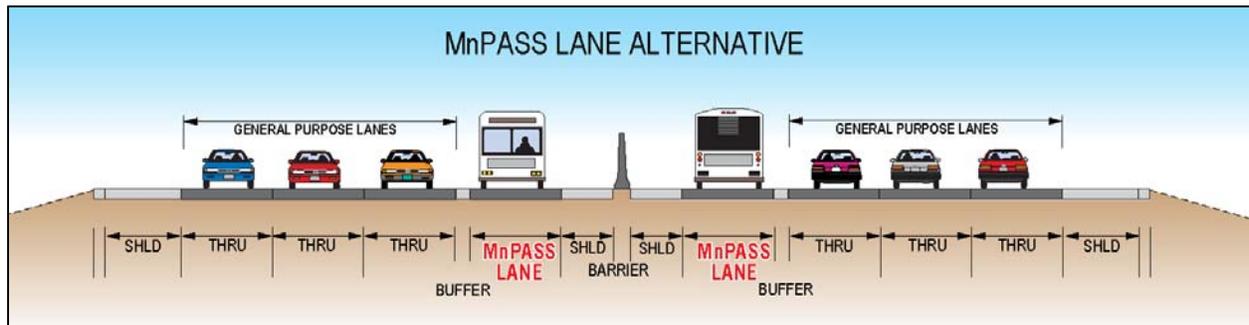
4.6.1 No Build Alternative

The No Build Alternative would maintain the existing pavement and current I-35W travel lane configuration through the 12 mile project area as described in Section 4.2. The No Build Alternative would be limited to ongoing maintenance work. The No Build Alternative provides the basis of comparison, or baseline, for the Preferred Alternative; it would not satisfy the purpose and need for the project.

4.6.2 Preferred Alternative

The Preferred Alternative is the MnPASS Lane Alternative. This alternative proposes pavement rehabilitation (unbonded concrete overlay) on I-35W from CR C in Roseville to Sunset Avenue in Lino Lakes, and includes construction of a new MnPASS lane on northbound and southbound I-35W from CR C in Roseville to Lexington Avenue in Blaine. The Preferred Alternative lane configuration is illustrated in Figure 4.7.

Figure 4.7 Preferred Alternative (MnPASS Lane Alternative)



The MnPASS Lane Alternative was identified as the Preferred Alternative because:

- The MnPASS Lane Alternative best addresses the transportation need for the project;
- The MnPASS Lane Alternative is more consistent with regional and state transportation policies;
- The MnPASS Lane Alternative is the most cost-effective investment; and

- The social, economic, and environmental impacts of the MnPASS Lane Alternative are similar to the other Build Alternatives. Negative effects to low-income groups because of peak period tolling under the MnPASS Lane Alternative are not anticipated. Refer to Section 6.1.6 (Income Equity).

Eight spot mobility improvements were recommended and are included in the Preferred Alternative (four improvements on southbound I-35W, three improvements on northbound I-35W, and one improvement on westbound TH 10 west of I-35W). These spot mobility improvements were identified because of the additional congestion relief and mobility provided during peak periods. These spot mobility improvements also provide the secondary benefit of reducing the potential for congestion-related crashes.

The Preferred Alternative includes the following roadway design features from south (City of Roseville) to north (City of Lino Lakes). The Preferred Alternative preliminary design layout is included in Appendix A (see Figure A.4 through Figure A.16).

An **unbonded concrete overlay** involves milling off a portion of the existing roadway surface and placing a new concrete surface on top of the road bed. Deteriorating sections of the road bed are typically repaired prior to constructing the new concrete surface.

Pavement Repairs

- Construct an **unbonded concrete overlay** on I-35W from the north side of the CR C bridges to north of the Sunset Avenue overpass;
- Construct an unbonded concrete overlay on the I-35W interchange ramps at CR C, CR D, CR 88, CR E2, I-694, CSAH 96, CR 10, TH 10 (east), CR H, CR I, TH 10 (west), CR J/Lake Drive, 95th Avenue, and Lexington Avenue;

MnPASS Lanes

- Construct a new northbound I-35W MnPASS lane from north of CR C to the I-35W/TH 10 commons area. Construct a new lane towards the outside shoulder of northbound I-35W through the I-35W/TH 10 commons area and restripe the inside lane as a MnPASS lane. Construct a new northbound I-35W MnPASS lane from the I-35W/TH 10 commons area to south of Lexington Avenue;
- Construct a new southbound I-35W MnPASS lane from south of CR C to the I-35W/TH 10 commons area. Construct a new lane towards the outside shoulder of southbound I-35W through the I-35W/TH 10 commons area and restripe the inside lane as a

MnPASS lane. Construct a new southbound I-35W MnPASS lane from the I-35W/TH 10 commons area to Lexington Avenue;

Bridge Replacement

- Replace the southbound I-35W bridge over Rosegate and the BNSF Railway (Bridge No. 9351);
- Replace the southbound I-35W bridge over CR C (Bridge No. 9353);
- Replace the northbound I-35W bridge over Rosegate and the BNSF Railway (Bridge No. 9352);
- Replace the northbound I-35W bridge over CR C (Bridge No. 9354);
- Replace the I-35W bridge over CR I (Bridge No. 9603);

Auxiliary Lanes/Buffer Lanes

- Construct a new northbound I-35W auxiliary lane from the CR E2 entrance ramp to the CR 96 exit ramp;
- Construct a buffer lane on northbound I-35W between the entrance loop from eastbound I-694 and the exit loop to westbound I-694;
- Construct a new southbound I-35W auxiliary lane between the CR 96 entrance ramp and the exit ramp to westbound I-694;
- Construct a new southbound I-35W auxiliary lane between the eastbound I-694 entrance ramp and the CR E2 exit ramp;
- Reconstruct the entrance ramp from westbound TH 10 to northbound I-35W as a two-lane ramp. Construct a new northbound I-35W auxiliary lane between the westbound TH 10 entrance ramp and the westbound TH 10 exit ramp;
- Construct a new southbound I-35W auxiliary lane between the eastbound TH 10 entrance ramp and the eastbound TH 10 exit ramp;
- Construct a new westbound TH 10 auxiliary lane between I-35W and the 93rd Lane exit ramp;

Other Features/Project Mitigation

- Extend the existing Rice Creek box culvert by approximately 20 feet to the west of I-35W;
- Construct stormwater best management practices (BMPs) (e.g., wet detention basins, infiltration/filtration basins, dry basins) at various

locations along the project corridor within existing highway right of way; and

- Construct noise walls at various locations along the project corridor as determined by the outcome of the traffic noise analysis process.⁴

4.7 Cost and Funding

4.7.1 Estimated Project Cost

The estimated project cost is approximately \$208 million in year 2019 dollars. This estimate assumes a five percent annual inflation rate from 2015 to 2019, and includes roadway construction, bridge construction, project engineering, contingency, and design-build delivery costs.

4.7.2 Anticipated Funding Sources

The project has received \$1.1 million in state funds through the Corridors of Commerce program and \$800,000 in federal funds for the completion of preliminary engineering and related studies. Future state and federal aid funds will be used to cover final design and construction costs.

4.8 Benefit Cost Analysis

The purpose of a benefit cost analysis is to evaluate the economic advantages (benefits) and disadvantages (costs) of a proposed highway investment. According to MnDOT guidance, “the objective of a benefit-cost analysis is to translate the effects of an investment into monetary terms and to account for the fact that benefits generally accrue over a long period of time while capital costs are incurred primarily in the initial years.”⁵ A benefit cost analysis takes into account highway user benefits (e.g., travel time savings, vehicle operating cost savings, safety benefits) and weight them against project costs (e.g., initial capital costs, rehabilitation costs, maintenance costs, etc.). This analysis indicates whether transportation savings (travel time, safety) exceed the costs of design, construction, and long-term operations.

Projects are considered cost-effective if the present value of benefits exceeds the present value of the costs of implementing the project (i.e., a benefit/cost ratio greater than 1.0).

⁴ Final number of noise wall to be constructed with the project will depend on the outcome of the noise wall solicitation process. Refer to the traffic noise study in Appendix G.

⁵ Minnesota Department of Transportation. Office of Planning & Programming. 2016. Benefit-Cost Analysis for Transportation Projects available at <http://www.dot.state.mn.us/planning/program/benefitcost.html>.

The Preferred Alternative has a benefit cost ratio of approximately 2.1, which indicates that the transportation benefits of the project are estimated to be greater than the initial construction costs of the project.

The complete benefit cost analysis technical memorandum is available for review from the MnDOT Project Manager (see contact information in Chapter 7).

4.9 Proposed Project Schedule

The following is a tentative schedule for this project. This schedule is subject to change depending upon funding and project delivery method (e.g., design-build versus design-bid-build).

Activity	Anticipated Timeline
EA comment period	Fall 2016
EA public hearing	Fall 2016
Proposed noise wall solicitation period	Fall 2016
Conclusion of environmental review process	2017
Permitting	2016-2017
Final Design (assumes Design-Build delivery)	2017
Start Construction ⁽¹⁾	2018
End Construction	2021

⁽¹⁾ Start construction date dependent on project funding.

Chapter 5 Environmental Assessment Worksheet

This Environmental Assessment Worksheet (EAW) form and EAW Guidelines are available at the Environmental Quality Board's website at: <http://www.eqb.state.mn.us/EnvRevGuidanceDocuments.htm>.

The EAW form provides information about a project that may have the potential for significant environmental effects. The EAW Guidelines provide additional detail and resources for completing the EAW form.

Minnesota's EAW is included in this EA in order to meet state EQB requirements. Additional federal issues not covered by the EAW are in Chapter 6 (Additional Federal Issues.)

Cumulative potential effects can either be addressed under each applicable EAW Item, or can be addresses collectively under EAW Item 19.

Note to reviewers: Comments must be submitted to the RGU during the 30-day comment period following notice of the EAW in the *EQB Monitor*. Comments should address the accuracy and completeness of information, potential impacts that warrant further investigation and the need for an EIS.

5.1 EAW Item 1: Project Title

I-35W North Corridor Preliminary Design Project

5.2 EAW Item 2: Proposer

Contact Person: Jerome Adams

Address: 1500 West County Road B2

City, State, ZIP: Roseville, MN 55113

Phone: 651-234-7611

Email: Jerome.Adams@state.mn.us

5.3 EAW Item 3: RGU

Contact Person: Rick Dalton

Address: 1500 West County Road B2

City, State, ZIP: Roseville, MN 55113

Phone: 651-234-7611

Email: Richard.Dalton@state.mn.us

5.4 EAW Item 4: Reason for EAW Preparation

Required:

- EIS Scoping
- Mandatory EAW

Discretionary:

- Citizen Petition
- RGU Discretion
- Proposer Initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

4410.4300 subp 22 Highway Projects, (B). For construction of additional travel lanes on an existing road for a length of one or more miles.

5.5 EAW Item 5: Project Location



County: Anoka and Ramsey

City/Township: Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington, Blaine, Lino Lakes

PLS Location (1/4, 1/4, Section, Township, Range): Sections 5, 8, 9, T29N, R23W; Sections 4, 5, 8, 9, 16, 17, 21, 28, 29, 32, T30N, R23W; Sections 13, 23, 24, 26, 27, 34, T31N, R23W; Sections 18, 19, T31N, R22W

Watershed (81 major watershed scale): Mississippi River – Twin Cities

GPS Coordinates: Not applicable (N/A)

Tax Parcel Number: N/A

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project

See Figure A.1 and Figure A.2, Appendix A.

- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable)

See Figures E.1 through E.3, Appendix E.

- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan.

See Figures A.4 through A.16, Appendix A (project layout).

5.6 EAW Item 6: Project Description

5.6.1 Project Summary

Item 6.a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

MnDOT proposes construction of MnPASS lanes on I-35W from County Road C in Roseville to Lexington Avenue in Blaine (approximately 10 miles). The project also includes pavement rehabilitation on I-35W from County Road C in Roseville to Sunset Avenue in Lino Lakes (approximately 11 miles), construction of auxiliary lanes on I-35W through the I-694 interchange area, construction of auxiliary lanes in the I-35W/TH 10 commons area, and construction of a westbound auxiliary lane on TH 10 from I-35W to 93rd Lane.

5.6.2 Complete Description of the Proposed Project

Item 6.b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize:

- 1) construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes,**
- 2) modifications to existing equipment or industrial processes,**
- 3) significant demolition, removal or remodeling of existing structures, and 4) timing and duration of construction activities.**



1) Construction, Operation Methods and Features That Will Cause Physical Manipulation of the Environment or Will Produce Wastes

Construction of the new I-35W MnPASS lanes between CR C and Lexington Avenue will involve filling in the center median, compacting material for the new travel lanes, and constructing new pavement. In the I-35W/TH 10 commons area, the new lanes will be constructed to the outside of the existing travel lanes, and the existing inside lanes will be restriped as the MnPASS lanes. Constructing additional lanes to the outside of the existing roadway involves removing the existing shoulder material, placing and compacting material for the new roadway embankment, and constructing new pavement.

Pavement rehabilitation on I-35W from CR C to north of Sunset Avenue will consist of milling off the top of the roadway surface and constructing an

unbonded concrete overlay. It is anticipated that pavement materials will be recycled on-site where appropriate and in accordance with best management practices established in MnDOT's construction specifications.

The project also includes construction of auxiliary lanes along I-35W through the I-694 interchange area, in the I-35W/TH 10 commons area, and along westbound TH 10 between I-35W and the exit ramp to 93rd Lane.

Constructing the auxiliary lanes will involve removing existing shoulder material where necessary, placing and compacting new material for the roadway embankment, and constructing the new pavement and outside shoulder. The northbound I-35W auxiliary lane through the I-694 interchange area will involve removal of a portion of the existing slope pavement under the I-694 bridges and construction of a retaining wall.

The concrete joints on the entrance ramp from 95th Avenue to southbound I-35W entrance ramp will be repaired. Four interchange ramps will be widened to accommodate ramp meter operations and vehicle queues at the following locations:

- Entrance ramp from CR D to southbound I-35W in Roseville and New Brighton;
- Loop from eastbound I-694 to northbound I-35W in New Brighton;
- Ramp from eastbound I-694 to southbound I-35W in New Brighton; and
- Entrance ramp from Lake Drive to southbound I-35W in Blaine.

Remaining interchange ramps along the I-35W project corridor will be rehabilitated (i.e., unbonded concrete overlay).

Vibrations are expected to result from any pile driving necessary for bridge construction and sheet piling. While vibration is often a nuisance during roadway projects, actual damage to nearby structures is rare. Construction vibrations may be perceptible and possibly annoying to occupants of buildings within the project area. Any necessary building susceptibility studies will be completed prior to construction following MnDOT standard practices in place at that time.

Stormwater best management practices (BMPs) have been identified for construction throughout the project area, including wet detention basins, infiltration/filtration basins, dry basins (for rate control), and treatment ditches. Proposed stormwater BMPs are located within existing MnDOT right of way, primarily within interchange areas. It is anticipated that excavated materials from stormwater BMP construction will be used elsewhere on the project. Any material that is not reused will be disposed of

in accordance with the MnDOT specifications identified in the construction contract.

Eight proposed noise walls have been identified for construction throughout the project area. This construction involves clearing and grubbing and placing concrete posts every eight feet for the length of the new wall. One existing noise wall will be removed and replaced with a 20-foot tall noise wall (see discussion of “Significant Demolition, Removal or Remodeling of Existing Structures” below). The proposed noise wall between the west frontage road and I-35W north of CR I will be constructed on top of a proposed retaining wall.

A permanent easement (approximately 0.05 acre) will be acquired across from the southbound I-35W ramps at CR C. Temporary construction easements or rights of entry will be obtained for work outside of MnDOT right of way north of I-694, north of CR I, and between TH 10 and CR J. Work outside of MnDOT right of way along the west side of I-35W to the north of CR H and CR I will be occupied during construction through Commissioner’s Orders.

Other construction activities will include installing lighting, re-striping/painting lanes, and installing ADA-compliant crossings at ramp terminal intersections (see accessibility discussion in Section 6.1.2).

2) Modifications to Existing Equipment or Industrial Processes

The project does not modify equipment or industrial processes.

3) Significant Demolition, Removal or Remodeling of Existing Structures

The project includes demolition, removal, and reconstruction of five bridges along the I-35W corridor:

- Southbound I-35W bridge over the BNSF Railway/Rosegate (MnDOT Bridge No. 9351) in Roseville;
- Southbound I-35W bridge over CR C (MnDOT Bridge No. 9353) in Roseville;
- Northbound I-35W bridge over the BNSF Railway/Rosegate (MnDOT Bridge No. 9352) in Roseville;
- Northbound I-35W bridge over CR C (MnDOT Bridge No. 9354) in Roseville; and
- I-35W bridge over CR I (MnDOT Bridge No. 9603) along the boundary between Shoreview and Mounds View.

One existing noise wall located along the west side of I-35W between CR I and TH 10 is proposed to be demolished, removed, and replaced with new 20-foot tall noise wall. Disposal of the existing noise wall materials will follow specifications identified in the construction contract (see the *Traffic Noise Analysis Report* in Appendix H).

4) Timing and Duration of Construction Activities

The anticipated project schedule is described in Section 4.8.

5.6.3 Project Magnitude

Item 6.c. Project Magnitude Data

Project magnitude data are listed in Table 5.1.

Table 5.1 Project Magnitude

	Project Magnitude
Total Project Acreage (based on preliminary construction limits)	350.5 acres
Linear Project Length (in miles)	12.8 miles ⁽¹⁾
Number and Type of Residential Units	Not Applicable (N/A)
Commercial Building Area (in square feet)	N/A
Industrial Building Area (in square feet)	N/A
Institutional Building Area (in square feet)	N/A
Other Uses – Specify (in square feet)	N/A
Structure Height(s)	N/A

⁽¹⁾ Includes work on TH 10 west of I-35W to 93rd Lane.

5.6.4 Project Purpose

Item 6.d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.

The purpose and need for the project is summarized in Chapter 3 and described in detail in the *I-35W North Corridor Preliminary Design Project Purpose and Need Report* in Appendix B.

Construction of the proposed project will benefit all users of the I-35W corridor (single-occupancy vehicles, carpoolers, transit, and freight). The proposed pavement rehabilitation will improve the ride quality on the corridor. The MnPASS lanes will provide a congestion-free, reliable option

for carpoolers, transit, and toll paying single occupant vehicles. The proposed spot mobility improvements will reduce congestion in the general purpose lanes and improve safety.

5.6.5 Future Stages of Development

Item 6.e. Are future stages of this development including development on any other property planned or likely to happen? Yes No

If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review.

Not applicable.

5.6.6 Subsequent Stage of Earlier Project

Item 6.f. Is this project a subsequent stage of an earlier project?
 Yes No

If yes, briefly describe the past development, timeline and any past environmental review.

Not applicable.

5.7 EAW Item 7: Cover Types

Estimate the acreage of the site with each of the following cover types before and after development:

Cover types before and after the project are listed in Table 5.2.

Table 5.2 Cover Types Before and After Development

Cover Type ⁽¹⁾	Before (acres)	After (acres)
Wetlands	1.8	0
Roadside Wetland Ditches (USACE) ⁽²⁾	11.7	9.7
Tributaries, Channels, and Streams	0.1	0
MnDOT Stormwater Features ⁽³⁾	1.9	14.3
Stormwater Conveyance Systems ⁽⁴⁾	7.1	0
Wooded/Forest	3.0	0
Brush/Grassland	150.1	119.5
Cropland	1.6	0

Cover Type ⁽⁴⁾	Before (acres)	After (acres)
Lawn/Landscaping	0	0
Impervious Surface	173.2	207
Total	350.5	350.5

⁽⁴⁾ Aquatic resources were categorized by type to determine USACE Section 404 permitting requirements. Aquatic resources include: wetlands; roadside wetland ditches; tributaries, channels, and streams; MnDOT stormwater features, and stormwater conveyance systems (see Section 5.11., EAW Item 11.b.iv.a). Minnesota Land Coverage Classification System data was used to calculate the following cover types: wooded/forest, brush/grassland, cropland, and lawn/landscaping.

⁽²⁾ Wetlands that are confined to roadside ditches.

⁽³⁾ Stormwater features that are not confined to roadside ditches and are inventoried and managed by MnDOT.

⁽⁴⁾ Wetland areas that are not confined to roadside ditches but were created as a result of stormwater conveyance.

5.8 EAW Item 8: Permits and Approvals Required



List all known local, state, and federal permits, approvals, certifications, and financial assistance for the project. Include modifications of any existing permits, governmental review of plans, and all direct and indirect forms of public financial assistance, including bond guarantees, Tax Increment Financing, and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, part 4410.3100.

Permits and approvals anticipated for the project are listed below in Table 5.3.

Table 5.3 Permits and Approvals and Current Status

Unit of Government	Type of Application	To be requested	Requested	Complete
Federal				
FHWA	Environmental Assessment			X
FHWA	Finding of No Significant Impact (anticipated outcome)	X		
FHWA	Section 4(f) Determination		X	
FHWA	Interstate Access Modification Request (IAMR)	X		
MnDOT CRU on behalf of FHWA	Section 106 (Historic/Archaeological) Determination			X
MnDOT OES on behalf of FHWA	Endangered Species Act Section 7 Determination			X

Unit of Government	Type of Application	To be requested	Requested	Complete
US Army Corps of Engineers (USACE)	Section 404 Permit		X	
State				
MnDOT	Environmental Assessment Worksheet			X
MnDOT	EIS Need Decision	X		
MnDOT	Wetland Conservation Act (Boundary Approval/ Replacement Plan)	X		
Department of Natural Resources (DNR)	Public Waters Work Permit	X		
DNR	Groundwater Appropriation Permit (if necessary)	X		
Minnesota Pollution Control Agency (MPCA)	National Pollutant Discharge Elimination System (NPDES)	X		
MPCA	Section 401 Certification	X		
Local				
Roseville	Municipal Consent	X		
New Brighton	Municipal Consent	X		
Arden Hills	Municipal Consent	X		
Mounds View	Municipal Consent	X		
Shoreview	Municipal Consent	X		
Lexington	Municipal Consent	X		
Blaine	Municipal Consent	X		
Lino Lakes	Municipal Consent	X		
Rice Creek Watershed District	Watershed District Permit	X		
Other (Private)				
BNSF Railway	Railroad Permit	X		
Canadian Pacific Railway	Railroad Agreement (if necessary)	X		

Cumulative potential effects may be considered and addressed in response to individual EAW Item Nos. 9-18, or the RGU can address all cumulative potential effects in response to EAW Item No. 19. If addressing cumulative effect under individual items, make sure to include information requested in EAW Item No. 19.

5.9 EAW Item 9: Land Use

5.9.1 Describe Existing Land Use, Plans, and Zoning

Item 9.a.i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

MnDOT's highway right of way is located next to a variety of land uses, including industrial; retail and other commercial; office; institutional; single family and multifamily residential; manufactured housing park; park, recreational, or preserve; and undeveloped. Figure E.4 in Appendix E illustrates the Metropolitan Council's 2010 Generalized Land Use designations.

Zoning maps for the adjacent cities were also reviewed and generally match the Metropolitan Council's land use map with a few exceptions. One exception is in Arden Hills, where the zoning has been updated in the northwest quadrant of County Road (CR) 96 and I-35W to reflect the development of the Twin Cities Army Ammunition Plant (TCAAP). The Metropolitan Council's generalized land use map shows the area as mixed use industrial and undeveloped; the City's zoning map shows the area as mixed business, mixed residential, and single family residential (see Figure E.5 in Appendix E). In Shoreview, the area northwest of the Rice Creek North Regional Trail Corridor was shown on the Metropolitan Council's generalized land use map as a mix of undeveloped, single family residential, and office/commercial space, but on the City's zoning map that area is shown as a planned urban development (see Figure E.6 in Appendix E). In Blaine, the City's zoning map shows a few planned business districts on both the east and west of I-35W where the Metropolitan Council's land use map shows undeveloped area (see Figure E.7, Appendix E).

Several parks and trails are located in the project area within approximately 1/2 mile of I-35W, listed below by city.

- Roseville (see Figure E.8, Appendix E)
 - Parks: Langton Lake Park
 - Trails: Along CR C, I-35W, and Cleveland Avenue and in Langton Lake Park
- New Brighton (see Figure E.9, Appendix E)
 - Parks: Vermont Park, Veterans Park, and Long Lake Regional Park
 - Trails: Rice Creek North Regional Trail; Highway 96 Regional Trail; Long Lake Regional Park trails; Veterans Park trails; Vermont Park trails; along 8th Street NW, 5th Avenue NW,

3rd Avenue NW, CR E2, 1st Street NW, 1st Street SW,
Cleveland Ave SE, 2nd Street E, and New Brighton Road

- Arden Hills (see Figure E.10, Appendix E)
 - Parks: Hazelnut Park, Simpson Park, Tony Schmidt Regional Park, Charles Perry Park, and Arden Manor Park
 - Trails: Elmer L. Anderson Memorial Trail
- Mounds View (see Figure E.11, Appendix E)
 - Parks: Oakwood Park, Greenfield Park, and Ardan Park
 - Trails: Rice Creek North Regional Trail
- Shoreview (see Figure E.12, Appendix E)
 - Parks: Rice Creek North Regional Trail Corridor, Rice Creek Fields
 - Trails: Rice Creek North Regional Trail, Rice Creek Fields trails, trail along CR I
- Blaine (see Figures E.13, E.14, and E.15, Appendix E)
 - Parks: Kane Meadows Park, Xylite Park, Centennial Green Park, Eastside Park, and Lochness Park
 - Trails: East Anoka County Regional Trail; trails in Kane Meadows Park, Xylite Park, Centennial Green Park, Eastside Park, Lochness Park
 - Scientific and Natural Areas (SNAs): Blaine Airport Rich Fen SNA and Blaine Preserve SNA
- Lexington (see Figure E.16, Appendix E)
 - Parks: Lexington Memorial Park
- Circle Pines (see Figure E.17, Appendix E)
 - Parks: Carl Eck Park and North Star Park
 - Trails: East Anoka County Regional Trail
- Lino Lakes (see Figure E.18, Appendix E)
 - Parks: Sunset Oaks Park and Sunrise Park
 - Trails: Bunker Hills/Chain of Lakes Regional Trail

The Natural Resources Conversation Service (NRCS) Web Soil Survey was used to review the soils within the project limits. No prime or unique farmland was identified.

Item 9.a.ii. Plans. Describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

The Metropolitan Council's planned land use data was reviewed for the corridor cities. The areas adjacent to I-35W are mostly developed, but there are some currently undeveloped areas and that is where most of the changes in land use are shown.

- In Roseville, the undeveloped area east of I-35W is planned for community mixed use and business park use.
- In New Brighton, some of the area that is currently in industrial use south of I-694 is planned for business park use, and north of I-694 the undeveloped area is planned for city center use.
- In Arden Hills, the former TCAAP site is planned to be redeveloped as a mixed business and residential district.
- In Mounds View, the undeveloped area in the northeast quadrant of I-35W and TH 10 is planned for office use.
- In Blaine, much of the currently undeveloped area on both the east and west sides of I-35W is planned for industrial or commercial use.

The planned/future land use maps in the city comprehensive plans were also reviewed and generally match the Metropolitan Council's planned land use data.

The *2010 Ramsey County Groundwater Protection Plan*⁶ recommends that local governments take into consideration the impacts of land use and development upon the natural environment since development practices affect geologic, soil, and water flow processes.

Anoka County's *Water Resources Report 2014*⁷ states that land use in Anoka County is controlled through municipal planning and zoning (see description above), which can address water resources protection by controlling or limiting specific threats that land use activities pose from operations, locations or sensitivity of the resource.

⁶ Ramsey Conservation District. *2010 Ramsey County Groundwater Protection Plan*. November 18, 2009 Draft. Available at <https://www.ramseycounty.us/sites/default/files/2010%20groundwater%20plan%20update%20conservation.pdf>

⁷ Anoka County Community Health and Environmental Services. *Anoka County Water Resources Report 2014*. Available at <https://www.anokacounty.us/DocumentCenter/Home/View/5631>

The Rice Creek Watershed District *2010 Watershed Management Plan*⁸ provides guidance for the Rice Creek Watershed District (RCWD) to manage the water and natural resources within the District's 186-square mile area through the year 2020. The *2010 Watershed Management Plan* shows projected land uses based on local comprehensive plans, and acknowledges that the amount of land shown as agricultural or undeveloped land is projected to decrease in the future.

Item 9.a.iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

No special districts or overlays were indicated on the zoning maps for any of the cities in the corridor. Floodplain regulations and impacts are discussed in Section 6.14, and floodplain boundaries are illustrated in the drainage overview maps in Figure A.17 through A.29, Appendix A.

5.9.2 Compatibility With Nearby Land Uses, Zoning, and Plans

Item 9.b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The proposed project is located largely within existing MnDOT right of way. See Section 6.2 for a description of anticipated right of way impacts. Anticipated permanent and temporary easement acquisitions will not preclude any future planned land uses on affected properties. Therefore, the proposed project is compatible with existing and planned land use.

The stormwater management plan for the proposed project has been designed to meet RCWD requirements (see Section 5.11.2); therefore, the project is compatible with the RCWD's *2010 Watershed Management Plan*.

5.9.3 Measures to Mitigate Any Potential Incompatibility

Item 9.c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

No incompatibility with existing or planned land use is anticipated; therefore, no mitigation is needed.

⁸ Rice Creek Watershed District. 2010 Watershed Management Plan. Adopted January 4, 2010. Amended November 12, 2014). Available at http://www.ricecreek.org/index.asp?SEC=28FBDA95-21DC-43C7-B00F-874ABE5945FA&Type=B_BASIC

5.10 EAW Item 10: Geology, Soils and Topography/ Land Forms

5.10.1 Geology Underlying the Project Area



Item 10.a. Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

Ramsey County

According to the Geologic Atlas of Ramsey County (Minnesota Geological Survey, Plate 3), the surficial soils in the project area are primarily of two types:

- Buried, coarse meltwater stream sediment deposited during the last glaciation (Wisconsin Episode)
- Till beneath sandy lake sediment, with small areas of till and organic sediment

The surficial deposits in heavily developed areas, such as those in the project area, are frequently covered by thick artificial fill or reworked local materials.

Anoka County

According to the Geologic Atlas of Anoka County (Minnesota Geological Survey, Plate 3), the surficial geology of Anoka County, like most of Minnesota, is dominated by unconsolidated sediments laid down by glacial ice and meltwater during the Wisconsin Episode. Glacial ice from the continental ice sheet to the north entered the county from different directions, reflected in the diverse deposits they left behind.

The topography of the area is relatively flat. The elevation throughout the corridor varies from around 880 feet to 930 feet above sea level. Stabilization of disturbed soils will be provided by means of vegetation establishment and through erosion control BMPs. There are no karst features present within the project area.

5.10.2 Soils and Topography

Item 10.b. Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

Soil data was obtained from the NRCS Web Soil Survey. There are 15 soil types within the project limits in Ramsey County, and six soil types within the project limits in Anoka County. The two soil types that make up the largest portions of the project limits are urban land – Zimmerman complex (27.4 percent) and Isanti fine sandy loam (15.7 percent). Table 5.4 provides details on the soil types found within the project limits.

A Stormwater Pollution Prevention Plan (SWPPP) will be developed for this project. All disturbed areas will be revegetated in accordance with the SWPPP and related permitting requirements.

Table 5.4 Soil Classification within the Project Limits

Symbol	Name	% Slopes	Erodibility Status ⁽⁴⁾	Acres	Percent of Project Limits
132C	Haden fine sandy loam	6-12%	Moderate	8.5	2.1%
132D	Hayden fine sandy loam	12-25%	Severe	0.1	0.0%
158B	Zimmerman fine sand	1-6%	Slight	16.2	3.9%
158C	Zimmerman fine sand	6-12%	Moderate	0.9	0.2%
159B	Anoka loamy fine sand	3-9%	Moderate	0.2	0.0%
161	Isanti loamy fine sand, depressional	--	Slight	0.5	0.1%
162	Lino loamy fine sand	--	Slight	1.7	0.4%
265	Soderville loamy fine sand	--	Slight	1.1	0.3%
540	Seelyeville muck	--	Slight	3.1	0.8%
859B	Urban land – Zimmerman complex	1-8%	Not Rated	113.3	27.4%

Symbol	Name	% Slopes	Erodibility Status ⁽⁴⁾	Acres	Percent of Project Limits
860C	Urban land –Hayden-Kingsley complex	3-15%	Not Rated	31.5	7.6%
863	Urban land- Lino complex	0-3%	Not Rated	30.6	7.4%
1027	Udorthents, wet substratum	--	Not Rated	37.7	9.1%
1039	Urban land	--	Not Rated	39.9	9.7%
1055	Aquolls and histosols, ponded	--	Slight	0.1	0.0%
W	Water	--	Not Rated	0.3	0.1%
Cu	Cut and Fill Land	--	Not Rated	6.2	1.5%
lw	Isanti fine sandy loam	--	Slight	64.8	15.7%
LnA	Lino loamy fine sand	0-4%	Slight	1.7	0.4%
Ma	Marky muck, occasionally ponded	0-1%	Slight	6.8	1.6%
SoA	Soderville fine sand	0-3%	Slight	43.8	10.6%
ZmB	Zimmerman fine sand	1-6%	Slight	4.3	1.0%

Source: Soil Survey of Washington and Ramsey Counties Minnesota, USDA Soil Conservation Service.

⁽⁴⁾ A rating of "slight" indicates that little or no erosion is likely; "moderate" indicates that some erosion is likely, that the roads or trails may require occasional maintenance, and that simple erosion-control measures are needed; and "severe" indicates that significant erosion is expected, that the roads or trails require frequent maintenance, and that costly erosion-control measures are needed.

NOTE: For silica sand projects, the EAW must include a hydrogeologic investigation assessing the potential groundwater and surface water effects and geologic conditions that could create an increased risk of potentially significant effects on groundwater and surface water. Descriptions of water resources and potential effects from the project in EAW Item 11 must be consistent with the geology, soils and topography/ land forms and potential effects described in EAW Item 10.

5.11 EAW Item 11: Water Resources



5.11.1 Surface Water and Groundwater Features

Item 11.a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below.

Item 11.a.i. Surface Water - Lakes, Streams, Wetlands, Intermittent Channels, and County/Judicial Ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special

designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

The project area consists of an assortment of wetlands, wetland ditches, stormwater ponds, channels, and streams. Wetland boundaries from TH 36 to Lexington Avenue (including the one mile segment along TH 10 west of I-35W) were field delineated using a routine Level 2 delineation methodology⁹ by SRF Consulting Group from May 15, 2015 to July 17, 2015. Delineated wetlands were predominantly roadside or median ditches or stormwater conveyance systems. A total of 195 wetlands and streams were delineated within or adjacent to the project area, 140 of which were delineated using Level 2 delineation methods and an additional 55 were delineated in the median of I-35W using a Level 1 delineation methodology.¹⁰ Wetland boundaries from Lexington Avenue to Sunset Avenue were also determined using a Level 1 delineation method. The field delineation for this segment will be completed during the 2016 growing season. See Figure A.17 through Figure A.29 in Appendix A for delineated wetland boundaries and other aquatic resources in the corridor and surrounding area.

Additionally, 13 Minnesota Department of Natural Resources (DNR) Public Water basins and watercourses were identified within 500 feet of the project limits (see Table 5.5).

Table 5.5 DNR Public Water Basins and Watercourses within 500 Feet of the Project Limits

Surface Water	DNR Public Water Number
Wilson Lake	62-50W
Unnamed Wetland	62-202W
Jones Lake	62-76W
Unnamed Wetland	62-190W
Farrel's Lake	62-184W
Unnamed Creek connecting Farrel's Lake to Long Lake	--
Unnamed Wetland	62-181W
Rice Creek	--
Unnamed Drainage Ditch connecting to Rice Creek	--
Unnamed Wetland	62-168W
Unnamed Wetland	02-593W

⁹ Routine on-site method established in the *1987 Corps of Engineers Wetlands Delineation Manual* and the *Midwest (V. 2.0) Regional Supplement*.

¹⁰ Desktop analysis utilizing aerial photography, National Wetland Inventory mapping, soil data, and topography, among other resources.

Surface Water	DNR Public Water Number
Unnamed Wetland	02-586W
Loch Ness Lake	02-585P

The Minnesota Pollution Control Agency (MPCA) includes seven waters on the 303d Impaired Waters list that are within one mile of the project limits (see Table 5.6).

Table 5.6 MPCA 303d Impaired Waters within One Mile of the Project Limits

Waterbody Name	Beneficial Use (Biology and Recreation, Consumption)	Impairment Cause	TMDL Plan	DNR Public Water Number
Jones Lake	Aquatic Life	<ul style="list-style-type: none"> • Aquatic Macroinvertebrate Bioassessments ⁽¹⁾ • Aquatic Plant Bioassessments 	N/A	62-76W
Rice Creek	Aquatic Life	<ul style="list-style-type: none"> • Aquatic Macroinvertebrate Bioassessments⁽¹⁾ • Fishes Bioassessments ⁽²⁾ 	N/A	N/A
Long Lake	Aquatic Consumption Aquatic Recreation	<ul style="list-style-type: none"> • Mercury in fish tissue • Nutrient/eutrophication biological indicators ⁽³⁾ 	Statewide Mercury TMDL RCWD Southwest Urban Lakes: Final TMDL	62-67P
Pike Lake	Aquatic Recreation	Nutrient/eutrophication biological indicators ⁽²⁾	RCWD Southwest Urban Lakes: Final TMDL	62-69P
Valentine Lake	Aquatic Recreation	Nutrient/eutrophication biological indicators ⁽²⁾	RCWD Southwest Urban Lakes: Final TMDL	62-71P
Johanna Lake	Aquatic Consumption	<ul style="list-style-type: none"> • Mercury in fish tissue • PFOS in fish tissue ⁽⁴⁾ 	Statewide Mercury TMDL	62-78P
Little Johanna Lake	Aquatic Consumption Aquatic Recreation	<ul style="list-style-type: none"> • PFOS in fish tissue ⁽⁴⁾ • Nutrient/eutrophication biological indicators⁽²⁾ 	N/A	62-58P

⁽¹⁾ May not support a thriving community of aquatic organisms, as indicated by macroinvertebrate population assessments. Available at <https://www.pca.state.mn.us/sites/default/files/wq-s1-62.pdf>

⁽²⁾ May not support a thriving community of fish species, as indicated by fish population assessments. Available at <https://www.pca.state.mn.us/sites/default/files/wq-s1-62.pdf>

⁽³⁾ Presence of nutrients, such as phosphorus, that may lessen water clarity and/or inhibit quality. Available at <https://www.pca.state.mn.us/sites/default/files/wq-s1-62.pdf>

⁽⁴⁾ Perfluorooctane sulfate (PFOS) present in fish tissues. Available at <https://www.pca.state.mn.us/waste/perfluorochemicals-pfcs>

Item 11.a.ii. Groundwater – Aquifers, Springs, Seeps. Include: 1) depth to groundwater; 2) if project is within a MDH wellhead protection area; 3) identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

Three Minnesota Department of Health (MDH) Wellhead Protection Areas (WPA) (see Figure E.19, Appendix E) are located within the project limits. MDH guidance will be used to evaluate feasibility of stormwater infiltration practices within these WPAs.

- Saint Anthony Village WPA
- New Brighton WPA
- Mounds View WPA

The MDH County Well Index (CWI) was also reviewed, and ten wells were identified within the project limits (see Table 5.7 and Figure E.19, Appendix E). Identified wells were located in the center of the project limits between I-694 and Lake Drive. All identified wells were listed as active, and indicated uses of the wells included commercial, domestic, monitoring, other, and unknown. Groundwater depth ranged from 10 to 78 feet.

Table 5.7 MDH CWI Wells within the Project Limits

Unique ID No.	Status	Use	Static Water Elevation (feet)
234137	Active	Unknown	45.00
233151	Active	Unknown	78.00
234136	Active	Unknown	45.00
187963	Active	Domestic	38.00
234135	Active	Unknown	45.00
234138	Active	Unknown	45.00
439701	Active	Monitoring	56.00
426859	Active	Monitoring	55.00
234241	Active	Other	10.00
206724	Active	Commercial	N/A

Wells that are to be impacted will be sealed by a licensed well contractor according to Minnesota Rules, Chapter 4725, or be relocated and coordinated with the MPCA and MDH.

5.11.2 Effects From Project Activities on Water Resources and Measures to Minimize or Mitigate the Effects

Item 11.b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

Item 11.b.i. Wastewater. For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

Not applicable.

2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.

Not applicable.

3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.

Not applicable.

Item 11.b.ii. Stormwater. Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

Existing Conditions

Much of the stormwater runoff from I-35W currently drains into a median ditch with occasional culvert connections to the outside of the roadway. This ditch system begins south of the project limits and continues through a majority of the project area. There are a number of offsite ditches, wetlands, and other areas adjacent to I-35W that flow into and through MnDOT right of way.

Existing stormwater BMPs are located throughout the I-35W project corridor. The I-35W project corridor is very flat, requiring a number of smaller BMPs in order to maintain sufficient grade in ditches, storm sewer, and other gravity driven stormwater conveyance systems.

Runoff from the corridor flows to five receiving waters: Jones Lake, Long Lake (including Farrel's Lake), Rice Creek, and Golden Lake.

I-35W North Corridor Project Preliminary Drainage Design

The preliminary drainage design for the project is summarized below. Drainage overview maps in Appendix A (see Figure A.17 through Figure A.29, Appendix A) illustrate drainage boundaries, water flow directions, and proposed stormwater BMPs (e.g., wet detention basins, dry basins, infiltration/ filtration basins, and treatment ditches). Details of the preliminary drainage design are described in the *I-35W North Corridor Preliminary Drainage Design Technical Memorandum*, available for review from the MnDOT Project Manager (see contact information in Chapter 7).

The project will increase the amount of impervious surface area in the corridor by approximately 33 acres. The preliminary drainage design for the project attempts to maintain existing drainage patterns where possible. The majority of the existing center median ditches will be filled and paved to accommodate the proposed MnPASS lanes. Curb and gutter will be constructed along the center median barriers to convey stormwater runoff from the roadway surface.

The project corridor has been split up into five general segments based on receiving water bodies. A number of wet detention basins and infiltration/filtration basins are included in these segments to control and treat stormwater runoff according to RCWD and NPDES construction stormwater permit requirements (see Figure A.17 through Figure A.29, Appendix A). Water resources engineering design criteria for the project are summarized in the *I-35W North Corridor Preliminary Drainage Design Technical Memorandum*. Pretreatment basins for infiltration areas are proposed and sized to meet or exceed the RCWD and NPDES permitting requirements. Other

BMPs will also be included, such as skimming devices, slope stabilization, construction staging, temporary sediment basins, and temporary seeding. Proposed BMPs in each of these five segments are summarized in Table 5.8.

Table 5.8 Proposed Stormwater BMPs

Segment ID	Location	Receiving Water	Proposed BMPs
Segment A	From the south project limits to north of the I-35W/CR 88 interchange.	Jones Lake	Combined stormwater pond and infiltration basin at the I-35W/CR D interchange.
Segment B	From north of the I-35W/ CR 88 interchange to the I-35W/CSAH 96 interchange.	Long Lake	<ul style="list-style-type: none"> • Pretreatment pond with infiltration bench along the east side of I-35W between CR E2 and I-694. • Stormwater pond in northeast quadrant of the I-35W/I-694 interchange. • Excavation in southeast and southwest quadrants of I-35W/I-694 to maximize storage.
Segment C1	From the I-35W/CSAH 96 interchange through the I-35W/TH 10 commons area to the I-35W/TH 10 north interchange.	Rice Creek	<p>Stormwater ponds at the following four locations:</p> <ul style="list-style-type: none"> • Northwest quadrant of the I-35W/TH 10 south interchange; • Northwest quadrant of the I-35W/CR H interchange; • Southeast quadrant of the I-35W/CR I interchange; and • Southeast quadrant of the I-35W/TH 10 north interchange.
Segment C2	From the I-35W/TH 10 north interchange to the I-35W/95th Avenue interchange.	Rice Creek	<p>Stormwater ponds at the following three locations:</p> <ul style="list-style-type: none"> • Northwest quadrant of the I-35W/TH 10 north interchange; • Southwest quadrant of the I-35W/Lake Drive interchange; and • Northeast quadrant of the I-35W/Lake Drive interchange.

Segment ID	Location	Receiving Water	Proposed BMPs
Segment D	From the I-35W/95th Avenue interchange to the Lexington Avenue interchange.	Golden Lake	<ul style="list-style-type: none"> • Stormwater pond in the northeast quadrant of the I-35W/95th Avenue interchange. • Maintain existing ditch system in I-35W pavement rehabilitation area between Lexington Avenue and Sunset Avenue (no additional impervious surface).

Receiving Waters and Environmental Effects from Stormwater Discharges

The entire project is contained within the RCWD boundaries. Runoff from the project corridor flows to five receiving waters: Jones Lake, Long Lake (including Farrel’s Lake), Rice Creek, and Golden Lake. Three of these receiving water bodies are impaired waters (see Table 5.6). Golden Lake is also an impaired water;¹¹ however, Golden Lake is located more than one mile from the project limits.

The project will not contribute to the impairment of receiving waters. A stormwater management system that will support the proposed roadway improvements, including BMPs for water quality treatment, volume control, and rate control, will be constructed with the project. These BMPs will be designed and constructed to meet the RCWD and NPDES regulatory requirements.

As noted above, the project discharges to three impaired waters within one-mile of the project limits (Jones Lake, Long Lake, and Rice Creek). The MPCA and RCWD have permitting authority over the project through the NPDES permit and RCWD permit, respectively. Because the project discharges to impaired waters, additional measures are required during construction. Filtration/infiltration basins will be constructed along the project corridor where feasible. Where possible, wet detention basins will be constructed up-stream of filtration/infiltration basin to provide pre-treatment. Because stormwater runoff will be directed to BMPs for treatment prior to discharge, the project is not expected to impact the water quality of receiving water bodies.

¹¹ Golden Lake is impaired for aquatic consumption (mercury in fish tissue) and aquatic recreation (nutrient/eutrophication biological indicators).

Stormwater Pollution Prevention Plans (SWPPP)

A SWPPP will be developed for this project in conjunction with the NPDES permit. The SWPPP will include MnDOT best management practices for erosion control, sedimentation control, and stabilization measures.

Item 11.b.iii. Water Appropriation. Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

At this stage of preliminary design, the only activity identified that could require water appropriation is the proposed culvert extension at the downstream (west) end of Rice Creek. Dewatering best management practices (BMPs) will be identified in the Stormwater Pollution Prevention Plan (SWPPP), and a project dewatering plan will be attached to the construction documents. Any other locations that are determined to require dewatering will be included in the dewatering plan. If dewatering rates during construction exceed 10,000 gallons per day or a million gallons per year, a DNR water appropriation permit will be required for these activities.¹²

Item 11.b.iv. Surface Waters

a) Wetlands. Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

Aquatic resource impacts (wetlands; roadside wetland ditches; stormwater features; stormwater conveyance systems; tributaries, channels, or streams) are not avoidable with this construction project with more than 200 resource

¹² DNR Water Use Permit Information. Available at: http://www.dnr.state.mn.us/waters/watermgmt_section/appropriations/permits.html

areas identified in the existing right of way. Approximately 22.6 acres of aquatic resource impacts will result based on preliminary design construction limits and Level 1 wetland boundaries between Lexington Avenue and Sunset Avenue. However, not all of the impacted aquatic resources are regulated. The following sections describe the estimated jurisdiction by aquatic resource type.

Avoidance Measures

The No Build Alternative would not impact aquatic resources; however, the No Build Alternative does not address the need for the project (see Section 4.6 and the alternatives evaluation report in Appendix C).

The proposed project maintains I-35W in its current alignment. There are no alternatives to relocate the freeway, as this would have substantial social, environmental, and economic impacts.

A Least Environmentally Damaging Practicable Alternative (LEDPA) determination will be completed by the USACE as part of the Section 404 permitting process for the project. Approximately 76 acres of wetlands were identified within the existing MnDOT right of way. With wetlands located on both sides of the I-35W roadway, complete avoidance of all wetland impacts is not practicable. Any widening of lanes to the inside or outside of existing lanes would result in some wetland impacts; therefore, the project was designed to focus impacts on lower-quality wetlands (i.e., median wetland ditches). Adding a new lane to the outside would have preserved approximately five acres of center median ditches but would have impacted an additional five acres of wetlands outside the existing roadbed. Wetlands located to the outside of the existing roadbed are generally higher quality wetlands compared to wetlands within the center median.

Minimization Efforts

Wetland impacts will be refined as project design progresses. Efforts to minimize the project footprint include reducing lane widths from 12 feet to 11.5 feet and reducing the inside shoulder width from a standard 10 foot width in either direction to alternating 4 foot and 11 foot widths. Side slopes were steepened to the extent allowable in select locations without compromising safety. Proposed grades tie into existing grades where feasible to avoid/minimize impacts to wetlands. Berms designed to help convey stormwater to downstream wetlands were reduced in width to minimize impacts to adjacent wetlands. Stormwater ponds were designed to use existing stormwater BMP locations rather than impacting higher quality wetland locations. As a result of minimization efforts, aquatic resource impacts have been reduced from over 40 acres under the base design to approximately 22.6 acres (see discussion below). All impacts are subject to

review by the USACE and MnDOT (Minnesota Wetland Conservation Act Local Government Unit for wetlands within MnDOT right of way).

USACE Regulated Aquatic Resources

Aquatic resources were categorized by resource type to determine permitting requirements of the USACE. Resource types included:

- Wetlands
- Roadside wetland ditches¹³
- MnDOT stormwater features¹⁴
- Stormwater conveyance system¹⁵
- Tributary, channel, or stream

See Table 5.9 for aquatic resource impacts sorted by resource type.

Table 5.9 Aquatic Resource Impacts by Type

Resource Type	Total Impact (acres) ⁽⁴⁾	Compensatory Mitigation Requirements
Wetland	1.8	Minimum 2:1 replacement ratio
Roadside Wetland Ditch (Within Median)	5.1	None (assumed per preliminary coordination with USACE)
Roadside Wetland Ditch (Not Within Median)	6.6	None (assumed per preliminary coordination with USACE)
MnDOT Stormwater Feature	1.9	To be determined
Stormwater Conveyance System	7.1	Potential for compensatory mitigation
Tributary, channel, or stream	0.1	To be determined
TOTAL	22.6	

⁽⁴⁾ Aquatic resource impacts are based on the following methodologies:

- Level 2 delineation methodology from TH 36 to Lexington Avenue (including the one mile segment along TH 10 west of I-35W) outside the median.
- Level 1 delineation methodology from Lexington Avenue to Sunset Avenue outside the median.
- Level 1 delineation methodology for all median areas within the corridor.

Preliminary coordination with the USACE is ongoing to determine aquatic resource impacts that are regulated by the agency. Roadside ditches (including those within the median) will not require mitigation provided it is

¹³ Wetlands that are confined to roadside ditches.

¹⁴ Stormwater features that are not confined to roadside ditches and are inventoried and managed by MnDOT.

¹⁵ Wetland areas that are not confined to roadside ditches but were created as a result of stormwater conveyance.

confirmed that these wetlands are confined to the ditch banks and do not drain wetlands. In most cases, these ditches will be reconstructed at the edge of the new fill slope. MnDOT stormwater features will not require mitigation provided that the features were constructed in areas that were historically upland. All other stormwater features will need to be mitigated, provided they have been determined jurisdictional by the USACE. A Jurisdictional Determination (JD) will be coordinated with the USACE to determine what stormwater features require mitigation.

As the project progresses, aquatic resource types and impacts will be refined in accordance with USACE permitting requirements. Wetland impacts will be mitigated by purchasing USACE approved bank credits. The minimum replacement ratio for impacts in Anoka and Ramsey counties is 2:1. If credits are not available in the impact Bank Service Area (BSA), credits from another BSA will be used.

WCA Regulated Wetlands

All wetland impacts are located within right of way owned by MnDOT; thus MnDOT is the Local Government Unit (LGU) for all wetland impacts of this project. Due to the location of the project limits, the majority of the wetlands within the corridor were constructed in uplands when I-35W was constructed. These wetlands are considered “incidental” under the WCA and are not under WCA jurisdiction; therefore, they do not require compensatory mitigation. Wetlands identified as incidental will be reviewed by MnDOT prior to permitting. See Table 5.10 for wetland impacts broken down into preliminary determinations of WCA regulated versus incidental.

Table 5.10 Wetland Impacts by Resource Type

WCA Status	Total Impact (acres)
Incidental (no loss)	13.8
Regulated	1.3
To be determined	7.5
TOTAL	22.6

The assumed replacement ratio for this project per WCA requirements is 2:1. The remaining mitigation will be provided by purchasing approved wetland bank credits within the same Bank Service Area.

b) Other Surface Waters. Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/ sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

The culvert at Rice Creek on the west side of I-35W (downstream) will be extended approximately 20 feet in order to accommodate the proposed project. Hydraulic modeling of the proposed culvert extension indicates that there will be no impact on upstream water surface elevations. The proposed culvert extension is consistent with Rice Creek Watershed District criteria for no-rise, which states that the maximum change in peak water surface elevation must not exceed a change of greater/less than 0.01 feet.

All other culvert activities through the corridor will be constructed in-kind, resulting in no change to the hydrologic regime of wetland or stream systems. All culvert replacements will be included in the project SWPPP and dewatering plan of the construction plans.

The Rice Creek Water Trail will be temporarily closed during construction when the existing box culvert under I-35W is extended to the west of the freeway. The Rice Creek Water Trail is used by canoers and kayakers. This temporary closure will be coordinated with Ramsey County Parks and Recreation (see Section 6.6).

5.12 EAW Item 12: Contamination/Hazardous Materials/Wastes

5.12.1 Pre-Project Site Conditions



Item 12.a. Pre-Project Site Conditions. Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential

environmental hazards. Include development of a Contingency Plan or Response Action Plan.

The presence of potentially contaminated properties (defined as properties where soil and/or groundwater is impacted with pollutants, contaminants, or hazardous wastes) 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. Contaminated materials encountered during highway construction projects must be properly handled and treated in accordance with state and federal regulations. Improper handling of contaminated materials can worsen their impact on the environment. Contaminated materials also cause adverse impacts to highway projects by increasing construction costs and causing construction delays, which also can increase project costs.

During a Phase I Environmental Site Assessment (ESA), potentially contaminated properties are identified through review of historic land use records and aerial photographs; Environmental Protection Agency (EPA), MPCA, and county/city records; and reconnaissance of current property conditions. During a Phase II investigation, the sites identified in the Phase I ESA are further evaluated to determine the extent and magnitude of contaminated soil or groundwater in the areas of concern (through detailed review of MPCA project files and collection and laboratory analysis of soil and groundwater samples) and their potential to be impacted by construction.

A Phase I ESA was completed for the proposed project in October 2014. A total of 403 parcels (referred to as “sites”) were identified within the project area (see Table F.1 and Figures F.1 and F.2, Appendix F). MnDOT is using this Phase I ESA information along with the currently known construction design to produce a work plan for drilling to confirm the presence or absence of chemical impacts from the listed sites. MnDOT is currently in the field conducting Phase II investigations based on the work plan created.

Impacts from contaminated properties established during the Phase II investigation will be mitigated by modifying the project design where warranted, avoiding purchasing a contaminated property if possible, and/or avoiding encountering contaminated materials during construction. If contaminated materials cannot be avoided, a plan will be developed to properly handle and treat any contaminated materials encountered during project construction in accordance with applicable state and federal regulations.

A copy of the entire Phase I ESA report (and Phase II ESA reports, when completed) are on file and available for review at the MnDOT Office of Environmental Stewardship at 395 John Ireland Boulevard in Saint Paul, Minnesota.

5.12.2 Project Related Generation/Storage of Solid Wastes

Item 12.b. Project Related Generation/Storage of Solid Wastes. Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

All solid wastes generated by construction of the proposed project will be disposed of properly in a permitted, licensed solid waste facility. Project demolition of concrete, asphalt, and other potentially recyclable construction materials will be directed to the appropriate storage, crushing, or renovation facility for recycling.

5.12.3 Project Related Use/Storage of Hazardous Materials

Item 12.c. Project Related Use/Storage of Hazardous Materials. Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

No above- or below-ground storage tanks are planned for permanent use in conjunction with this project. Temporary storage tanks for petroleum products may be located in the project area for refueling construction equipment during roadway construction. Appropriate measures will be taken during construction to avoid spills that could contaminate groundwater or surface water in the project area. In the event that a leak or spill occurs during construction, appropriate action to remedy the situation will be taken immediately in accordance with MPCA guidelines and regulations.

If a spill of hazardous or toxic substances should occur during or after construction of the proposed project, it is the responsibility of the transport company to notify the Minnesota Department of Public Safety, Division of Emergency Services, to arrange for corrective action. Any contaminated spills or leaks that occur during construction are the responsibility of the contractor, who will notify and work with the MPCA to contain and remediate contaminated soil/materials in accordance with state and federal standards.

5.12.4 Project Related Generation/Storage of Hazardous Wastes

Item 12.d. Project Related Generation/Storage of Hazardous Wastes. Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

The I-35W bridges over Rosegate/BNSF Railway, CR C, and CR I will be replaced. These bridges were examined for regulated materials/waste. Copies of asbestos and regulated waste inspection reports for these bridges are available for review from the MnDOT Project Manager (see contact information in Chapter 7).

The existing glue laminate noise wall located along the west side of I-35W, south of TH 10 will be replaced with a new concrete post-wooden plank noise wall. Wood guardrail posts will also be removed and replaced a various locations along the project corridor.

All regulated material and/or waste will be managed on this project in accordance with MnDOT special provisions. The MPCA regulates asbestos management activities and disposal activities. The disposal of asbestos regulated waste will be in accordance with MPCA rules. Toxic or hazardous materials will not be present at the site, except for fuel and oil necessary for maintaining and running heavy construction equipment or chemical products (pavement sealants, etc.) routinely used in roads.

5.13 EAW Item 13: Fish, Wildlife, Plant Communities, and Sensitive Ecological Resources (Rare Features)

5.13.1 Fish and Wildlife Resources



Item 13.a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

A majority of the land within the project limits has experienced some level of previous disturbance. Residential, commercial, industrial, and infrastructure development have substantially altered much of the land within the project area. In general, wildlife species found in the project area are those species generally adapted to live in areas of mixed development and fragmented or partially fragmented habitats. There are a few notable exceptions to the disturbed nature of the project area that require additional discussion, described below.

Rice Creek

Rice Creek flows through the project area just south of the CR H overpass. Rice Creek begins in Clear Lake in Washington County and generally flows to the southwest through Ramsey and Anoka Counties, terminating at the confluence of the Mississippi River. Rice Creek passes through an extensive network of lakes known as the Lino Lakes Chain of Lakes, a portion of which is preserved in the Rice Creek Chain of Lakes Regional Park Preserve. Rice Creek is also bordered by Rice Creek North Regional Trail Park in Shoreview and Arden Hills, Long Lake Regional Park in New Brighton, and by the Rice Creek West Regional Trail in Fridley. Rice Creek is home to a diverse population of bird species and wide variety of animals adapted to living in or adjacent to riverine systems.

Scientific and Natural Areas

There are two Scientific and Natural Areas (SNAs) identified in the general project vicinity: the Blaine Airport Rich Fen SNA and the Blaine Preserve SNA (see Figure E.15, Appendix E). SNAs are designated and managed by the DNR with a goal to “Preserve and perpetuate the ecological diversity of Minnesota's natural heritage, including landforms, fossil remains, plant and animal communities, rare and endangered species, or other biotic features and geological formations, for scientific study and public edification as components of a healthy environment.”

5.13.2 Rare Features

Item 13.b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA-____) and/or correspondence number (ERDB _____) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

MnDOT has a liaison with the DNR who performs reviews internally; therefore, no LA or ERDB number has been assigned. Correspondence from the DNR is included in Appendix D.



A search of the Natural Heritage Information System (NHIS) Database was conducted to identify rare features within the project area. The NHIS database comprises locational records of rare plants, rare animals, and other rare features including native plant communities, geologic features, and animal aggregations (such as nesting colonies). In order to ensure future protection of these sensitive resources, the location information is not provided in this document. Instead, the document generally identifies the sensitive resources in the project area and describes measures to avoid, minimize, or mitigate impacts to those resources.

Rare features identified during the NHIS review included:

- Two aggregate areas containing a number of plant species currently under various levels of state protection;
- Two DNR designated SNAs located in the general project vicinity: the Blaine Airport Rich Fen SNA and the Blaine Preserve SNA; and
- Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species.¹⁶

5.13.3 Impacts of the Project

Item 13.c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the

¹⁶ Photo source: Minnesota Department of Natural Resources. *Blanding's Turtle Fact Sheet*. See correspondence in Appendix D.

project construction and operation. Separately discuss effects to known threatened and endangered species.

Sensitive Plant Species

Two aggregate areas of sensitive plant species were identified in the general project vicinity. These areas contain a number of plant species currently under various levels of state protection. The implementation of this project is not anticipated to directly or indirectly impact these aggregate areas. The only likely potential for impacting sensitive plants species will be if the plants in question have “volunteered” into the adjacent roadway right of way (see discussion in part d below).

Wildlife Resources

Blanding’s turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported in the project vicinity. Because Blanding’s turtles require both wetland and upland habitats to complete their life cycle, there is the possibility that these turtles could be encountered during construction as they undertake their seasonal moments.

Scientific and Natural Areas

There are two DNR managed SNAs located in the general project vicinity, the Blaine Airport Rich Fen SNA and the Blaine Preserve SNA.

The Blaine Airport Rich Fen SNA is located outside of the project limits and will not be directly or indirectly impacted by the implementation of this project.

The Blaine Preserve SNA is located adjacent to I-35W, southeast of the I-35W/Lexington Avenue (CSAH 17) interchange. The work proposed at this location will be confined to the existing roadway right of way and will not result in direct or indirect impacts to this property.

Fishery Resources

There are DNR Public Waters within the project vicinity (see Table 5.5 in Section 5.11 for DNR PWI basins and watercourses within 500 feet of the project limits). The DNR noted that work in these watercourses will need to incorporate the fish spawning restriction dates into the project construction schedule. MnDOT will extend the western section of the Rice Creek culvert under I-35W, and it is expected that there will be some in-water impacts associated with this activity.

Invasive Species/Noxious Weeds

The Rice Creek culvert will be extended by approximately 20 feet to the west of I-35W as part of the project. Construction of the Rice Creek culvert extension is unlikely to introduce aquatic invasive species (AIS).

MnDOT has identified areas of noxious weeds along the I-35W project corridor. Weed species mapped by MnDOT include spotted knapweed, Canada thistle, leafy spurge, common tansy, wild parsnip, and purple loosestrife.

5.13.4 Measures to Avoid, Minimize, or Mitigate Adverse Effects

Item 13.d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

Sensitive Plant Species

Two aggregate areas of sensitive plant species were identified in the general project vicinity. These areas contain a number of plant species currently under various levels of state protection. The implementation of this project will not result in direct or indirect impact to these populations.

Even though these populations will not be impacted by project construction, there is a possibility that some of these plant species may have volunteered into the adjacent roadway right of way. MnDOT staff completed a plant survey along I-35W near the Blaine Preserve SNA in June 2016. No rare plant species were identified within preliminary construction limits. Another survey for late-flowering plant species will be completed before the end of the 2016 growing season. MnDOT will continue to coordinate with the DNR to determine measures to avoid, minimize, or mitigate impacts to any sensitive species identified during these surveys.

Wildlife Resources

Blanding's turtles (*Emydoidea blandingii*), a state-listed threatened species, have been reported in the project vicinity and may be encountered during construction. MnDOT will provide the DNR's *Blanding's Turtle Fact Sheet* to all contractors working on site so that the appropriate measures can be followed if turtles are encountered during construction.

DNR staff completed a field review of the I-35W project corridor in spring 2016 and concluded that the existing right of way fence is sealed at the bottom, preventing turtles from passing under the fence and on to the

highway. Preliminary construction limits extend out to the existing right-of-fence in the vicinity of the I-35W/CR H and I-35W/CR I interchanges. Any existing right of way fence that is removed and replaced will be installed to prevent turtles from passing under the fence, either through installing the fence flush to the ground surface or by mounding up dirt at the bottom of the fence.

Scientific and Natural Areas

There are two DNR designated SNAs located in the general project vicinity, the Blaine Airport Rich Fen SNA and the Blaine Preserve SNA. The implementation of this project will not result in direct or indirect impacts to the Blaine Airport Rich Fen SNA and the Blaine Preserve SNA.

Fishery Resources

There are DNR Public Waters within the project vicinity (see Table 5.5 in Section 5.11 for DNR PWI basins and watercourses within 500 feet of the project limits). The DNR noted that work in these areas or adjacent to these areas needs to include the reestablishment of native vegetation suitable to the local habitat.

The DNR also noted that the Minnesota Pollution Control Agency (MPCA) NPDES general permit for authorization to discharge stormwater associated with construction activities (permit MN R10001) recognizes the DNR “work in water restrictions” during specified fish migration and spawning timeframes for areas adjacent to water. During the restriction period, all exposed soil areas that are within 200 feet of the water’s edge and drain to these waters must have erosion prevention and stabilization activities initiated immediately after construction activity has ceased (and be completed within 24 hours).

As part of the project improvements, MnDOT will extend the western section of the Rice Creek culvert under I-35W. Rice Creek is a DNR public water. MnDOT will coordinate construction activities with the DNR and incorporate the applicable spawning restriction timeframes into the construction schedule (no in-water work from March 15 to June 15). MnDOT will follow the provisions of the NPDES permit including erosion prevention, stabilization, and revegetation requirements.

Invasive Species/Noxious Weeds

Any in-water work in Rice Creek will follow the provisions outlined by the DNR in their guidance document *Best Practices for Preventing the Spread of Aquatic Invasive Species*.

Any soil moved during construction that contains noxious weeds or weed parts will be kept within the I-35W right of way, on the same side of the highway, and buried under the final roadway grade where possible. If MnDOT's contractors chose to move soil from the project area that contains noxious weed parts, permits to transport this soil will be obtained from the appropriate County Agricultural Inspectors.

5.14 EAW Item 14: Historic Properties

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

The proposed project was review by MnDOT Cultural Resources Unit (CRU) staff for potential impacts to historic resources. CRU found that there will be no historic properties affected by the proposed project (see correspondence in Appendix D).

5.15 EAW Item 15: Visual

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

The project area is an existing highway corridor that does not include any scenic views or vistas. The proposed project will widen the existing roadway within the current right of way limits, consistent with the current views of and from I-35W.

Noise walls may be constructed as part of the project (see Section 5.17 for a description of proposed noise walls and the noise wall voting process), which block the view of the highway from the residential properties near the wall. The proposed noise walls also block the views of the residential properties from I-35W. The proposed noise walls will be made of painted wooden planks and concrete posts.

5.16 EAW Item 16: Air

5.16.1 Stationary Source Emissions



Item 16.a. Stationary Source Emissions. Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a

discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

Not applicable.

5.16.2 Vehicle emissions

Item 16.b. Vehicle Emissions. Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g., traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

The following summarizes the results of the *Air Quality Analysis Report* in Appendix H.

How is air quality evaluated for transportation projects?

Motorized vehicles affect air quality by emitting airborne pollutants. Changes in traffic volumes, travel patterns, and roadway locations affect air quality by changing the number of vehicles in an area and the congestion levels. The air quality impacts from the project are analyzed by addressing criteria pollutants, a group of common air pollutants regulated by the EPA on the basis of criteria (information on health and/or environmental effects of pollution). The criteria pollutants identified by the EPA are ozone, particulate matter, carbon monoxide, nitrogen dioxide, lead, and sulfur dioxide. Potential impacts resulting from these pollutants are assessed by comparing projected concentrations to [National Ambient Air Quality](#)

Standards (NAAQS). In addition to the criteria air pollutants, the EPA also regulates Mobile Source Air Toxics (MSAT).

What is National Ambient Air Quality Standards?

The US Environmental Protection Agency (EPA) established maximum allowable levels for six principal pollutants, called criteria pollutants. These limits are the National Ambient Air Quality Standards (NAAQS). Exceeding the limits may be harmful to human health.

Air pollution has regional consequences, so regions are classified as attainment (in compliance with NAAQS), non-attainment (not in compliance with NAAQS), or maintenance (previously was non-attainment but is now in compliance and needs to maintain compliance for 20 years before being classified as attainment).

Qualitative analyses were conducted for ozone, particulate, nitrogen dioxide, lead, and sulfur dioxide. The proposed project will not cause exceedances of the NAAQS for any of these pollutants (see the *Air Quality Analysis Report* in Appendix H).

The following air quality elements are addressed in the following sections: conformity to Minnesota’s State Implementation Plan (SIP), a Carbon Monoxide (CO) Analysis, and a Mobile Source Air Toxics (MSAT) analysis.

How do the project alternatives address Conformity to the SIP?

The I-35W North Corridor project area is designated by EPA as in attainment (or complying) with the NAAQS for all air pollutants. While the project area is in attainment with the CO NAAQS, the project area was formerly a nonattainment area for CO and is currently a “maintenance” area for this pollutant. Therefore, Transportation Conformity rules (40 CFR 93, Subpart A) apply only to vehicle emissions of CO in the project area.

The EPA issued final rules on transportation conformity (40 CFR 93, Subpart A) that describe the methods required to demonstrate SIP compliance for transportation projects. This project is not currently included in the Metropolitan Council’s *2016-2019 Transportation Improvement Program* (TIP), but will be added once funding becomes available. This project is included in the transportation conformity section of

Metropolitan Council’s *2040 Transportation Policy Plan* (TPP) (Appendix E: Additional Air Quality Information) as a regionally significant project under the 2030 horizon year.

On November 8, 2010, the EPA approved a limited maintenance plan request for the Twin Cities maintenance area. Under a limited maintenance plan, the EPA has determined that there is no requirement to project emissions over the maintenance period and that,

...an emission budget may be treated as essentially not constraining for the length of the maintenance period. The reason is that it is unreasonable to expect that our maintenance

area will experience so much growth within this period that a violation of CO National Ambient Air Quality Standard (NAAQS) would result.

(Source: US EPA Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas, October 6, 1995, page 3-4)

Therefore, no regional modeling analysis for the Long Range Transportation Policy Plan (LRTPP) and TIP is required; however, federally- funded and state-funded projects are still subject to "hot-spot" analysis requirements. The limited maintenance plan adopted in 2010 determines that the level of CO emissions and resulting ambient concentrations will continue to demonstrate attainment of the CO NAAQS.

How do the project alternatives address CO?

CO evaluation is performed by evaluating the worst-operating (hot spot) intersections in the project area. The EPA has approved a screening method to determine which intersections need hot-spot analysis. The hot-spot

What is a “hot spot” analysis?

A hot spot analysis is defined by the US EPA as an estimation of like future localized air pollutant concentrations and a comparison of those concentrations to the relevant NAAQS.

screening method uses an intersection traffic volume threshold of 79,400 entering vehicles per day. The proposed project does not affect any intersections within the project area. Therefore, no hot-spot analysis or screening procedure was needed nor completed.

Improvements in vehicle technology and in motor fuel regulations continue to result in reductions in vehicle emission rates. The EPA MOVES 2010b emissions model estimates that emission rates will continue to decline from existing rates through year 2040. Consequently, year 2040 vehicle-related CO concentrations in the project area are likely to be lower than existing concentrations even considering the increase in development-related and background traffic.

On November 8, 2010, the EPA approved a limited maintenance plan request for the Twin Cities maintenance area. Under a limited maintenance plan, the EPA has determined that there is no requirement for project emissions over the maintenance period and that "an emission budget may be treated as essentially non-constraining for the length of the maintenance period. The reason is that it is unreasonable to expect that our maintenance area will experience so much growth within this period that a violation of CO NAAQS will result."¹⁷ Therefore, no regional modeling analysis for the LRTPP and TIP is required; however, federally funded and state funded projects are still subject to "hot-spot" analysis

¹⁷ US EPA Limited Maintenance Plan Option for Nonclassifiable CO Nonattainment Areas, October 6, 1995

requirements. The limited maintenance plan adopted in 2010 determines that the level of CO emissions and resulting ambient concentrations will continue to demonstrate attainment of the CO NAAQS.

How do project alternatives address Mobile Source Air Toxics?

Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the EPA regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS).¹⁸ In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA).¹⁹ These are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules. The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines.

FHWA developed a tiered approach with three categories for analyzing MSAT in NEPA documents, depending on specific project circumstances:

1. No analysis for projects without potential for meaningful MSAT effects;
2. Qualitative analysis for projects with low potential for MSAT effects; or
3. Quantitative analysis to differentiate alternatives for projects with higher potential for MSAT effects

According to FHWA guidance for MSAT analysis, in order for a project to fall into category three (quantitative MSAT analysis), the project should:

1. Create new capacity or add significant capacity to urban highways (such as interstates, urban arterials, or urban collector-distributor routes) and have traffic volumes where the annual average daily traffic (AADT) is projected to range from 140,000 to 150,000 vehicles per day or greater by the design year; and

¹⁸ <http://www.epa.gov/iris/>

¹⁹ <http://www.epa.gov/ttn/atw/nata1999/>

2. Be located in proximity of populated areas

The proposed project is located in the cities of Roseville, New Brighton, Arden Hills, Mounds View, Shoreview, Lexington, Blaine, and Lino Lakes with projected AADTs ranging from 140,000 to 180,000 in the affected freeway segments. This project meets the criteria for the third category; therefore, MnDOT completed a quantitative assessment of MSAT emissions. The results of this assessment are included in the air quality memorandum in Appendix H. A summary of the quantitative MSAT analysis results is provided below.

A trend analysis of MSAT emissions was completed for year 2015 to year 2040 in five year increments with an additional year of 2022 identified as the opening year.²⁰ The trend analysis showed a substantial emissions reduction for all the priority MSATs over the next three decades from year 2014 to 2040. Improvements in vehicle technology and fuel efficiency contribute to this reduction.

On the county scale, construction of the proposed project is not anticipated to result in a substantive change in the overall emissions along the corridor. The worst case year in 2022 showed little change between Build Alternative and No Build Alternative emission levels. Model outputs show an increase of less than 0.04 percent for all air toxics in year 2022 with construction of the project (see Table 5.11). Model outputs show an increase of less than 0.1 percent for all air toxics in year 2040 with construction of the project (see also Table 3 in Appendix H).

Table 5.11 MSAT Emissions, Project Impact Analysis (Year 2022)

Pollutant	2022 No Build Conditions (lbs.)	2022 Build Conditions (lbs.)	Difference (lbs.)	Change
Acrolein	4,027.0	4,027.3	0.38	0.009%
Benzene	100,761.5	100,776.6	15.04	0.015%
Butadiene	16,203.0	16,203.4	0.48	0.003%
Formaldehyde	50,542.5	50,548.7	6.23	0.012%
Naphthalene	7,158.8	7,159.6	0.85	0.012%
POM	2,423.5	2,424.1	0.61	0.025%
Diesel PM	482,654.9	482,846.9	192.06	0.040%

²⁰ The six MSAT compounds included in the assessment of MSAT emissions include: acrolein; benzene; 1,3-butadiene; diesel particulate matter (diesel PM); formaldehyde; naphthalene; and polycyclic organic matter (POM).

The air quality project impact analysis shows no meaningful difference between the No Build Alternative and Build Alternative. On a regional level, the project's projected air quality impacts are too small to be considered meaningful.

5.16.3 Dust and Odors

Item 16.c. Dusts and Odors. Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

Dust generated during construction will be minimized through standard dust control measures such as applying water to exposed soils and limiting the extent and duration of exposed soil conditions. Construction contractors will be required to control dust and other airborne particulates in accordance with MnDOT specifications in place at the time of project construction. After construction is complete, dust levels are anticipated to be minimal because all soil surfaces exposed during construction will be in permanent cover (i.e., paved or re-vegetated).

5.17 EAW Item 17: Noise



Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

The following answers the EAW question in relation to highway projects and summarizes the findings in the Noise Report provided in Appendix I.

5.17.1 Construction Noise

Will there be noise during construction?

The construction activities associated with implementation of the proposed project will result in increased noise levels relative to existing conditions.

These impacts will primarily be associated with construction equipment and pile driving.

Table 5.12 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 5.12 Typical Construction Equipment Noise Levels at 50 Feet

Equipment Type	Manufacturers Sampled	Total Number of Models in Sample	Peak Noise Level (dBA) Range	Peak Noise Level (dBA) 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: Environmental Protection Agency (EPA) and FHWA.

What can be done to reduce the annoyance associated with construction noise?

Elevated noise levels are, to a degree, unavoidable for this type of project. MnDOT will require that construction equipment be properly muffled and in proper working order. While MnDOT and its contractor(s) are exempt from local noise ordinances, it is the practice to require contractor(s) to comply with applicable local noise restrictions and ordinances to the extent that is reasonable. Construction of the proposed project is projected to last for four construction seasons. Advanced notice will be provided to affected communities of any planned abnormally loud construction activities.

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. High-impact noise construction activities will be limited in duration to the greatest extent possible.

It is anticipated that night construction may be required to expedite construction, minimize traffic impacts, and improve safety. Noisy work at night for I-35W construction will be limited as much as possible, but may need to occur periodically. Construction or maintenance activities that are generally prohibited during 8:30 p.m. and 7:00 a.m. include pile

driving/removal, concrete pavement demolition, pavement sawing, concrete crushing operations and jack-hammering. However, there will be times when noise producing operations will have to occur at night because of the need for pavement to cure or be sawed, or lanes closures that allow access to the work area.

5.17.2 Traffic Noise Analysis

Traffic Noise Analysis Report

The project includes the addition of through traffic lanes. As such, this project is considered a federal Type I project²¹ requiring a traffic noise analysis. The following is a summary of the *I-35W North Corridor Preliminary Design Traffic Noise Analysis Report*. The complete *I-35W North Corridor Preliminary Design Traffic Noise Analysis Report* is included in Appendix I. This report includes background information on noise, information regarding federal traffic noise regulations and MPCA state noise standards, a discussion of the traffic noise analysis methodology, documentation of the potential traffic noise impacts associated with the proposed project, and an evaluation of noise abatement measures.

How is traffic noise regulated at the federal level?

The FHWA's traffic noise regulation is located in 23 Code of Federal Regulations (CFR) Part 772 (Procedures for Abatement of Highway Traffic Noise and Construction Noise). 23 CFR 772 requires the identification of highway traffic noise impacts and the evaluation of noise abatement

²¹ 23 CFR 772.5 (FHWA) defines a Type I project as:

- (1) The construction of a new highway on a new location; or,
- (2) The physical alteration of an existing highway where there is either:
 - (i) Substantial Horizontal Alteration. A project that halves the distance between the traffic noise source and the closest receptor between the existing condition to the future build condition; or,
 - (ii) Substantial Vertical Alteration. A project that removes shielding, therefore exposing the line-of-sight between the receptor and the traffic noise source. This is done by either altering the vertical alignment of the highway or by altering the topography between the highway traffic noise source and the receptor; or,
- (3) The addition of through-traffic lane(s). This includes the addition of a through-traffic lane that functions as a HOV lane, High-Occupancy Toll (HOT) lane, bus lane, or truck climbing lane; or,
- (4) The addition of an auxiliary lane, except for when the auxiliary lane is a turn lane; or,
- (5) The addition or relocation of interchange lanes or ramps added to a quadrant to complete an existing partial interchange; or,
- (6) Restriping existing pavement for the purpose of adding a through-traffic lane or an auxiliary lane; or,
- (7) The addition of a new or substantial alteration of a weigh station, rest stop, ride-share lot or toll plaza.
- (8) If a project is determined to be a Type I project under this definition, then the entire project area as defined in the environmental document is a Type I project.

measures, along with other considerations, in conjunction with the planning and design of a federal-aid highway project (i.e., projects funded or approved through the FHWA).

What is L10 and L50?

Measured traffic noise levels are characterized as a function of time. One way to do that is to use a statistical term such as the percent of time a noise level is exceeded. The L10 level is the noise level exceeded 10 percent of the time (typically a one hour period). The L50 level is the noise level exceeded 50 percent of the time.

Under federal rules, traffic noise impacts are determined based on land use activities and predicted loudest hourly L10 noise levels under future conditions. For example, for residential land uses (Activity Category B), the Federal Noise Abatement Criterion (NAC) is 70 dBA (L10). We use the term receptor to refer to land uses that receive traffic noise. Receptor locations where modeled traffic noise levels are “approaching” or exceeding the NAC must be evaluated for noise abatement feasibility and reasonableness. In Minnesota, “approaching” is defined as 1 dBA or less below the Federal NAC. A noise impact is also defined when traffic receivers are projected to experience a “substantial increase” in the future traffic noise levels over the existing modeled noise levels. A “substantial increase” is defined as an increase of 5 dBA or greater from existing to future conditions.

How is traffic noise regulated in Minnesota?

The Minnesota state noise standards are located in Minnesota Rules Chapter 7030. The MPCA is the state agency responsible for enforcing state noise rules. The MPCA noise standards are different for daytime and nighttime. MPCA defines daytime as 7:00 a.m. to 10:00 p.m. and nighttime as 10:00 p.m. to 7:00 a.m. The state noise standards address the differing noise sensitivities of three different land uses, including: residential uses (noise activity category 1, or NAC-1), commercial uses (NAC-2), and industrial uses (NAC-3). Minnesota state noise standards apply to the outdoor environment (i.e., exterior noise levels). The MPCA noise standards also apply to traffic noise from certain highways including the proposed project area of I-35W and TH 10.

How are traffic noise impacts determined?

Traffic noise is evaluated by modeling the traffic noise levels during the hours of the day and/or night that have the loudest traffic. The loudest traffic periods are those conditions where the traffic volume, speeds, and vehicle mix result in the loudest noise levels. The traffic noise model uses existing and forecasted traffic volumes, as well as characteristics of the roadway and surrounding environment, to calculate traffic noise levels at representative receptor locations. Modeled traffic noise levels are then compared to state daytime and nighttime noise standards and Federal NAC.

If modeled traffic noise levels are projected to exceed state daytime and/or nighttime noise standards under the Build Alternative, are projected to approach or exceed Federal NAC, or result in a substantial increase, then a traffic noise impact is identified and noise abatement measures (e.g., noise walls) are considered.

How was traffic noise evaluated on this project?

Field measurements of existing noise levels were measured at 10 locations along the I-35W project corridor. These 10 locations were identified because they are representative of the surrounding area and the typical cross section for that section of highway. Field measurements were tested against model results. Noise levels from the field measurements were within 3 dBA (L10) of modeled noise levels, validating the model.

Traffic noise modeling was completed using the “MINNOISEV31” model, a version of FHWA’s STAMINA model adapted by MnDOT for use in Minnesota. Traffic noise levels were modeled for existing conditions (2015), the future (2040) No Build Alternative, and the future (2040) Build Alternative. The 2:00 p.m. to 3:00 p.m. period was identified as the loudest hour during the daytime, and the 6:00 a.m. to 7:00 a.m. period was identified as the loudest hour during the nighttime. Traffic noise levels were modeled at 2,195 receptor locations representing residential, commercial, and industrial land uses along the I-35W project corridor. Additional details regarding the noise modeling methodology are described in the *Traffic Noise Analysis Report* in Appendix I.

What were the results of the traffic noise analysis?

Detailed analysis results for each modeled receptor location can be found in the *Traffic Noise Analysis Report* in Appendix I. The analysis results are summarized below.

- The existing daytime L10 noise levels at modeled receptors varied between 52.7 dBA and 79.5 dBA. The existing nighttime L10 noise levels at modeled receptors varied between 51.5 dBA and 79.4 dBA.
- Future 2040 No Build daytime L10 noise levels were predicted to range between 53.6 dBA and 80.2 dBA. The 2040 No Build nighttime L10 noise levels were predicted to range between 52.5 dBA and 80.0 dBA.
- Future 2040 Build daytime L10 noise levels were predicted to range between 53.0 dBA and 78.3 dBA, exceeding state noise standards at 827 receptors. The 2040 Build nighttime L10 levels were predicted to

range between 52.5 dBA and 77.9 dBA, exceeding state noise standards at 2,031 receptors.

- Future 2040 Build daytime L10 noise levels were predicted to approach or exceed Federal NAC at 353 receptors.

The analysis shows that under future No Build Alternative conditions, traffic noise levels are projected to increase by 0.5 dBA to 1.4 dBA (L10) compared to existing conditions. Modeled traffic noise levels under the future Build Alternative are projected to vary by -1.2 dBA to 1.5 dBA (L10) compared to existing conditions.

What noise abatement measures were considered?

Noise abatement measures (i.e., noise walls) were evaluated along the I-35W project corridor at receptor locations where modeled noise levels were projected to: 1) exceed state daytime and/or nighttime noise standards, 2) approach or exceed Federal NAC, or 3) result in a substantial increase (i.e., increase by 5 dBA or greater from existing to future Build Alternative conditions).

The noise wall analysis was completed on a total of 36 potential wall locations along the corridor. Of the 36 walls analyzed, eight met the feasibility and reasonableness criteria and are proposed as part of the project. A summary description of the proposed noise walls is provided below. Locations of proposed noise walls are shown on the project layout figures in Appendix A and in Figure E.20, Appendix E. Five existing noise walls will remain in-place and unchanged with the project. Locations of the existing noise walls are shown in Figure E.20, Appendix E. Additional details of the noise wall analysis are included in the *Traffic Noise Analysis Report* (see Appendix I).

- Wall NB1: Proposed Wall NB1 will be located on the eastern side of I-35W between CR C and CR D in Roseville. The wall is proposed with a height of 14 feet and a length of 4,182 feet. There will be a total of 27 benefited receptors, and the preliminary cost per benefitted receptor is \$43,179.
- Wall NC1: Proposed Wall NC1 will be located on the eastern side of I-35W between the freight rail tracks and CR D in New Brighton. The wall is proposed with a height of 20 feet and a length of 5,409 feet. There will be a total of 104 benefited receptors, and the preliminary cost per benefitted receptor is \$20,653.
- Wall SE1: Proposed Wall SE1 will be located on the western side of I-35W between 10th Street NW and CR E2 in New Brighton. The

wall is proposed with a height of 20 feet and a length of 2,577 feet. There will be a total of 53 benefitted receptors, and the preliminary cost per benefitted receptor is \$19,153.

- Wall SI1: Proposed Wall SI1 will be located on the western side of I-35W between CR I and Squire Lane in Mounds View. There is an existing 10-foot tall wall in this location that is 2,624 feet long that will be demolished and reconstructed as part of the longer proposed wall. The proposed wall will be 3,927 feet long and 20 feet high. There will be a total of 106 benefitted receptors, and the preliminary cost per benefitted receptor is \$15,946, including the cost of \$5 per square foot to demolish the existing wall.
- Wall SJ1: Proposed Wall SJ1 will be located on the southern side of TH 10 between Edgewood Drive and Jackson Drive in Mounds View. The wall is proposed with a height of 20 feet and a length of 1,411 feet. There will be a total of 16 benefitted receptors, and the preliminary cost per benefitted receptor is \$34,295.
- Wall NK1: Proposed Wall NK1 will be located on the eastern side of I-35W between Lake Drive and 95th Avenue NE in Blaine. The wall is proposed with a height of 20 feet and a length of 5,050 feet. There will be a total of 160 benefitted receptors, and the preliminary cost per benefitted receptor is \$12,527.
- Wall NL1: Proposed Wall NL1 will be located on the southern side of I-35W between 95th Avenue NE and Lexington Avenue in Blaine. The wall is proposed with a height of 20 feet and a length of 4,185 feet. There will be a total of 56 benefitted receptors, and the preliminary cost per benefitted receptor is \$29,613.
- Wall NN1: Proposed Wall NN1 will be located on the southern side of I-35W between Sunset Avenue and Rice Lake Drive in Lino Lakes. The wall is proposed with a height of 20 feet and a length of 1,681 feet. There will be a total of 22 benefitted receptors, and the preliminary cost per benefitted receptor is \$29,851.

What is the likelihood that noise mitigation will be implemented?

The traffic noise analysis for the eight proposed noise walls described in Appendix I is based upon preliminary design studies completed at the time the noise analysis was performed. Final noise mitigation decisions will be subject to final design considerations and the viewpoint of benefitted residents and property owners. Final noise mitigation decisions will be identified in MnDOT's Findings of Fact and Conclusion (FOF&C)

document, to be prepared and released following the EA public comment period.

If conditions substantially change by the time the project reaches the final design stage, noise abatement measures may not be provided. If the final plan changes substantially, receptors that would have received benefits from noise walls, along with local officials, will be notified of plans to eliminate or substantially modify a noise abatement measure prior to the final design process. This notification will explain any changes in site conditions, additional site information, any design changes implemented during the final design process, and noise wall feasibility and reasonableness. When the project's final design and public involvement process have been completed, MnDOT can make the final decision regarding noise wall installation.

5.18 EAW Item 18: Transportation

5.18.1 Traffic-Related Aspects of Project Construction and Operation

Item 18.a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

1) Existing and proposed additional parking spaces

The project does not include parking spaces.

2) Estimated total average daily traffic generated

The proposed project will not generate new trips in the same way as a new development because the freeway is not a destination or end point like a business or residential neighborhood. Travel demand modeling completed for the project shows that the Preferred Alternative will draw trips from adjacent roadways to I-35W due to the improved operations and better travel times on the freeway compared to local roadways. Table 5.13 tabulates the change in traffic volumes along I-35W from TH 36 to CSAH 23 under the 2040 Preferred Alternative in comparison to the 2040 No Build Alternative.

Table 5.13 2040 No Build Alternative and 2040 Preferred Alternative Average Daily Traffic Volumes

Location	No Build Alternative 2040 ADT (vpd)	Preferred Alternative 2040 ADT (vpd)	Change (Preferred-No Build)	MnPASS Lanes 2040 ADT (vpd)
TH 36 to CR C	138,900	144,700	5,800	N/A
CR C to CR D	137,000	144,300	7,300	4,700
CR D to CR 88	128,100	136,300	8,200	5,100
CR 88 to CR E2	139,000	147,700	8,700	5,200
CR E2 to I-694	143,000	151,800	8,800	5,100
I-694 to CSAH 96	143,800	153,500	9,700	5,700
CSAH 96 to CSAH 10	132,900	142,100	9,200	5,700
CSAH 10 to CR H	173,800	181,600	7,800	5,700
CR H to CR I	183,800	190,400	6,600	4,700
CR I to TH 10	177,800	183,900	6,100	4,700
TH 10 to CR J	111,800	116,500	4,700	4,100
Lake Dr to 95th Ave	81,700	85,300	3,600	3,600
95th Ave to Lexington Ave	70,600	73,500	2,900	3,600
Lexington Ave to CSAH 23	54,600	55,700	1,100	N/A

3) Estimated maximum peak hour traffic generated and time of occurrence

As noted above, the proposed project will not generate new trips. The I-35W project corridor generally carries commuter-oriented traffic between the Twin Cities northern suburbs and downtown Minneapolis and beyond (e.g., further south on I-35W, east and west of I-694 and I-94, etc.). This results in peak period travel patterns predominately in the southbound direction during the morning and the northbound direction in the afternoon. The a.m. peak hour represents approximately seven to eight percent of average daily traffic (ADT) volumes. The time of the a.m. peak hour varies from approximately 6:00 a.m. to 7:00 a.m. north of TH 10, to approximately 6:30 a.m. to 7:30 a.m. between I-694 and TH 36. The p.m. peak hour represents approximately eight to 9.5 percent of ADT volumes, and occurs between 4:30 p.m. and 5:30 p.m.²²

²² Minnesota Department of Transportation. *I-35W North Managed Lanes Corridor Study*. June 2013. Chapter 3.3. Existing Traffic Characteristics.

4) Indicate source of trip generation rates used in the estimates

Future (year 2040) travel demand forecasts for this project were developed using the Metropolitan Council's regional travel demand model (RTDM) dated January 2014, with supplemental information from MnDOT's Collar County model. The travel demand forecast methodology is described in detail in the traffic forecast technical memorandum (SRF Consulting Group, Inc. *I-35W North Corridor Preliminary Design Traffic Forecast Technical Memorandum*. May 20, 2015). A copy of this memorandum is available from the MnDOT Project Manager (see contact information in Chapter 7).

5) Availability of transit and/or other alternative transportation modes

Transit opportunities are available on I-35W. Metro Transit operates three express bus routes on the I-35W corridor between the northern suburbs and downtown Minneapolis (Route 250, Route 252, and Route 288).

Park and ride lots adjacent to the I-35W project corridor are listed below. According to Metro Transit's *2015 Annual Regional Park-and-Ride System Report* (March 2016), these four park and ride facilities had a 2015 percent utilization ranging from 42 percent to 74 percent.

- St. Joseph's Church Park and Ride in Lino Lakes;
- 95th Avenue Park and Ride in Blaine;
- County Road H Park and Ride in Mounds View; and
- I-35W & County Road C Park and Ride in Roseville.

Sidewalks and trails are located throughout the project area along local routes parallel to and crossing over/under I-35W. City maps showing sidewalks and trails are in Figures E.8 through E.14, Appendix E.

5.18.2 Effect on Traffic Congestion

Item 18.b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW. Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 (available at: <http://www.dot.state.mn.us/accessmanagement/resources.html>) or a similar local guidance.*

This project's purpose is to improve pavement conditions, improve mobility, improve travel time reliability, and maintain or improve transit advantages. The following discussion demonstrates how mobility and travel time reliability will improve in comparison to having no improvement in the corridor.

How was traffic analyzed for the I-35W North Corridor Preliminary Design Project?

As part of the I-35W North Corridor Preliminary Design Project, a traffic analysis using the CORSIM traffic model was completed. One of the results of the CORSIM traffic model is level of service (LOS). LOS is a quality measure used to describe traffic density, generally in terms of speed and travel time, maneuverability, comfort, and convenience. LOS ratings range from LOS A (best) to LOS F (worst).²³

The traffic modeling analyzed the Preferred Alternative traffic operations for the forecast (year 2040) conditions. The Preferred Alternative CORSIM modeling included the proposed MnPASS lanes as well as the proposed spot mobility improvements. Results of the CORSIM analysis for southbound I-35W for the 2040 No Build Alternative and 2040 Preferred Alternative are shown in Table 5.14. Results of the CORSIM analysis for northbound I-35W for the 2040 No Build Alternative and the 2040 Preferred Alternative are shown in Table 5.15.

²³ Additional background information regarding freeway congestion and the level of service grading system is provided in Section 3.2.2 of the Purpose and Need Statement Report in Appendix B.

Table 5.14 Southbound I-35W LOS Results (2040 No Build Alternative and 2040 Preferred Alternative)

CORSIM Modeling Location: From	CORSIM Modeling Location: To	No Build (2040) AM Peak Hr GPL	Preferred Alternative (2040) AM Peak Hr GPL	Preferred Alternative (2040) AM Peak Hr MnPASS	No Build (2040) PM Peak Hr GPL	Preferred Alternative (2040) PM Peak Hr GPL
CSAH 23	Lexington Ave	F	D	NA	B	B
Lexington Ave	95th Ave	F	D	B	B	B
95th Ave	Lake Dr	F	F	B	C	B
CR J	TH 10	F	F	C	C	B
TH 10	CR I	F	E	B	C	B
CR I	CR H	F	D	C	C	B
CR H	CSAH 10	F	C	B	C	B
CSAH 10	CSAH 96	D	E	C	C	B
CSAH 96	I-694	F	C	B	C	B
I-694	CR E2	F	D	B	C	B
CR E2	CR 88	E	E	B	C	B
CR 88	CR D	E	E	B	C	B
CR D	CR C	E	E	NA	C	B
CR C	TH 36	E	F	NA	C	B

Highlighting key: E = LOS E, F = LOS F.

GPL = General purpose lane.

NA: not applicable. No MnPASS lane on this segment of I-35W under the Preferred Alternative.

Table 5.15 Northbound I-35W LOS Results (2040 No Build Alternative and 2040 Preferred Alternative)

CORSIM Modeling Location: From	CORSIM Modeling Location: To	No Build (2040) AM Peak Hr GPL	Preferred Alternative (2040) AM Peak Hr GPL	No Build (2040) PM Peak Hr GPL	Preferred Alternative (2040) PM Peak Hr GPL	Preferred Alternative (2040) PM Peak Hr MnPASS
TH 36	CR C	B	B	F	C	NA
CR C	CR D	B	B	F	C	B
CR D	CR 88	B	B	F	C	B
CR 88	CR E2	B	B	F	C	C
CR E2	I-694	B	A	F	B	C
I-694	CSAH 96	B	B	F	C	C
CSAH 96	CSAH 10	B	B	F	E	C
CSAH 10	CR H	B	A	F	F	C
CR H	CR I	B	B	F	F	C
CR I	TH 10	B	A	F	F	C

CORSIM Modeling Location: From	CORSIM Modeling Location: To	No Build (2040) AM Peak Hr GPL	Preferred Alternative (2040) AM Peak Hr GPL	No Build (2040) PM Peak Hr GPL	Preferred Alternative (2040) PM Peak Hr GPL	Preferred Alternative (2040) PM Peak Hr MnPASS
TH 10	CR J	B	A	E	D	C
Lake Dr	95th Ave	B	A	E	E	C
95th Ave	Lexington Ave	B	A	E	D	C
Lexington Ave	CSAH 23	A	A	C	D	NA

Highlighting key: **E** = LOS E, **F** = LOS F.

GPL = General purpose lane.

NA: not applicable. No MnPASS lane on this segment of I-35W under the Preferred Alternative.

Will the proposed project improve travel in the corridor?

LOS Analysis Results (MnPASS Lanes)

The modeling shows the proposed 2040 MnPASS lane operating at LOS C or better for the entire project area (northbound and southbound I-35W). Those choosing to take transit, carpool or pay to use the MnPASS lane will experience speeds at or near free-flow conditions (40 to 50 MPH) due to less vehicles using the lane. During non-peak periods the MnPASS lane is available to all users as a general purpose lane.

LOS Analysis Results (General Purpose Lanes)

Because a new lane is being added to the freeway, there are also benefits to the general purpose lanes. In general, the LOS under the 2040 Preferred Alternative in the general purpose lanes where the MnPASS lanes are proposed either improves or remains the same as the LOS under the 2040 No Build Alternative. CORSIM modeling locations, highlighted in bold text in Table 5.14 and Table 5.15, shows improvements in the general purpose lanes under the 2040 Preferred Alternative compared to the 2040 No Build Alternative. However, there is one location where MnPASS lanes are proposed where the LOS in the general purpose lanes is projected to be below the 2040 No Build Alternative.

The general purpose lanes on southbound I-35W between CSAH 10 and CSAH 96 are expected to operate at LOS E during the morning peak hour under the 2040 Preferred Alternative, whereas the 2040 No Build Alternative for this same segment is projected to operate at LOS D (see Table 5.14). The general purpose lane LOS is different between the 2040 Preferred Alternative and 2040 No Build Alternative at this location because of higher traffic densities under the Preferred Alternative. However, additional CORSIM

modeling measurements indicate that the user experience in the general purpose lanes is not expected to be substantially different between the 2040 Preferred Alternative and the 2040 No Build Alternative. Indeed, the modeled speeds in the southbound general purpose lanes are expected to be similar, resulting in similar travel times between CSAH 10 and CSAH 96 (see Table 5.16).

Table 5.16 Southbound I-35W A.M. Peak Hour Analysis Results Between CSAH 10 and CSAH 96

CORSIM Modeling Results Southbound I-35W CSAH 10 to CSAH 96 ⁽¹⁾	2040 No Build Alternative AM Peak Hour GP Lanes	2040 Preferred Alternative AM Peak Hour GP Lanes	2040 Preferred Alternative AM Peak Hour MnPASS Lane ⁽¹⁾
LOS	D	E	C
Travel Times	24 seconds	24 seconds	22 seconds
Speeds	56 MPH	54 MPH	60 MPH

⁽¹⁾ The CORSIM model segment length between CSAH 10 and CSAH 96 is approximately 0.4 mile.

GP Lanes = General Purpose Lanes.

In addition, there are two locations outside of the limits of the proposed MnPASS lanes where the LOS under the 2040 Preferred Alternative is projected to be below the 2040 No Build Alternative:

- Southbound I-35W between CR C and TH 36 during the a.m. peak hour (see Table 5.14); and
- Northbound I-35W between Lexington Avenue and CSAH 23 during the p.m. peak hour (see Table 5.15).

Southbound I-35W (CR C to TH 36)

The proposed southbound I-35W MnPASS lane designation will terminate just south of CR C in Roseville. There are four general purpose lanes on southbound I-35W south of CR C to TH 36. Three lanes continue south on I-35W through the TH 36 interchange, whereas two lanes exit I-35W to eastbound TH 36 and Cleveland Avenue.

With the 2040 No Build Alternative, upstream bottlenecks north of I-694 reduce the volume of traffic that can be delivered to I-35W south of CR C and the TH 36 interchange. The proposed MnPASS lane and spot mobility improvements will improve mobility on I-35W north of CR C. This allows for additional traffic to be delivered to the TH 36 interchange area. MnPASS lane traffic destined for southbound I-35W through the TH 36 interchange will also be merging out of the left lane into the other lanes. As a result,

vehicle density on southbound I-35W between CR C and TH 36 is expected to increase. The 2040 Preferred Alternative between CR C and TH 36 is projected to operate at LOS F during the morning peak hour, with reduced travel times and speeds compared to the 2040 No Build Alternative (see Table 5.17).

Table 5.17 Southbound I-35W A.M. Peak Hour Analysis Results Between CR C and TH 36

CORSIM Modeling Results Southbound I-35W CR C to TH 36 ⁽¹⁾	2040 No Build Alternative AM Peak Hour GP Lanes	2040 Preferred Alternative AM Peak Hour GP Lanes	2040 Preferred Alternative AM Peak Hour MnPASS Lane ⁽²⁾
LOS	E	F	N/A
Travel Times	32 seconds	52 seconds	N/A
Speeds	55 MPH	34 MPH	N/A

⁽¹⁾ The CORSIM model segment length between CR C and TH 36 is approximately 0.5 mile.

⁽²⁾ The southbound I-35W MnPASS Lane terminates just south of CR C.

GP Lanes = General Purpose Lanes.

Northbound I-35W (Lexington Avenue to CSAH 23)

The proposed northbound I-35W MnPASS lane terminates just north of the 95th Avenue interchange. The addition lane continues on northbound I-35W from north of 95th Avenue to Lexington Avenue as a general purpose lane. This additional lane then drops at the northbound I-35W exit ramp to Lexington Avenue, and two lanes continue on northbound I-35W through the CSAH 23 interchange to the I-35W/I-35E merge.

The additional lane and spot mobility improvements south of 95th Avenue will improve mobility on northbound I-35W, delivering more traffic and increasing the density north of Lexington Avenue. As a result, the 2040 Preferred Alternative p.m. peak hour is projected to operate at LOS D compared to LOS C under the 2040 No Build Alternative. However, modeled speeds on northbound I-35W between Lexington Avenue and CSAH 23 are projected to be similar for the 2040 Preferred Alternative and 2040 No Build Alternative, resulting in similar travel times (see Table 5.18).

Table 5.18 Northbound I-35W P.M. Peak Hour Analysis Results Between Lexington Avenue and CSAH 23

CORSIM Modeling Results Northbound I-35W Lexington Avenue to CSAH 23 ⁽¹⁾	2040 No Build Alternative PM Peak Hour GP Lanes	2040 Preferred Alternative PM Peak Hour GP Lanes	2040 Preferred Alternative PM Peak Hour MnPASS Lane ⁽²⁾
LOS	C	D	N/A
Travel Times	2.4 minutes	2.4 minutes	N/A
Speeds	63 MPH	61 MPH	N/A

⁽¹⁾ The CORSIM model segment length between Lexington Avenue and CSAH 23 is approximately 2.5 miles.

⁽²⁾ The northbound I-35W MnPASS lane terminates between 95th Avenue and Lexington Avenue.

GP Lanes = General Purpose Lanes.

I-35W North Corridor Travel Times

Morning and afternoon peak hour travel times from TH 36 in Roseville to CSAH 23 in Lino Lakes are tabulated in Table 5.19. Morning and afternoon peak hour travel times in the general purpose lanes will improve under the 2040 Preferred Alternative compared to the 2040 No Build Alternative. Morning peak hour travel times on southbound I-35W general purpose lanes between CSAH 23 and TH 36 are projected to decrease by nearly 20 minutes under the 2040 Preferred Alternative compared to the 2040 No Build Alternative. Afternoon peak hour travel times on northbound I-35W general purpose lanes between TH 36 and CSAH 23 are projected to decrease by nearly 15 minutes under the 2040 Preferred Alternative compared to the 2040 No Build Alternative.

Table 5.19 I-35W Morning and Afternoon Peak Hour Travel Times Between TH 36 and CSAH 23

Peak Hour Travel Times (Minutes)	AM Peak Hour Southbound I-35W GP Lanes	AM Peak Hour Southbound I-35W MnPASS Lane	PM Peak Hour Northbound I-35W GP Lanes	PM Peak Hour Northbound I-35W MnPASS Lane
2040 No Build Alternative	36.0 min.	N/A	30.0 min.	N/A
2040 Preferred Alternative	15.8 min.	13.6 min.	14.5 min.	12.8 min.

GP Lanes = General Purpose Lanes.

Conclusions

The CORSIM modeling shows the proposed 2040 MnPASS lane operating at LOS C or better for the entire project area. During non-peak periods the MnPASS lane is available to all users as a general purpose lane.

The LOS for the general purpose lanes where MnPASS lanes are proposed either improves or remains the same as the LOS for the 2040 No Build Alternative. There is one location on southbound I-35W between CSAH 10 and CSAH 96 where the LOS for the general purpose lanes is worse than the LOS for the 2040 No Build Alternative during the morning peak hour; however, travel times are the same for this 0.5 mile segment compared to the 2040 No Build Alternative. Therefore, the Preferred Alternative does not show a worse condition when compared to the No Build Alternative at this location.

There are two locations along the I-35W project corridor where the LOS for the 2040 Preferred Alternative is worse than the 2040 No Build Alternative (southbound I-35W south of CR C and northbound I-35W north of Lexington Avenue). Both of these locations are outside of the limits of the proposed MnPASS lanes and spot mobility improvements. The reductions in LOS at these two locations are because the proposed project improves mobility on I-35W, delivering more traffic to the south and north ends of the project at CR C and Lexington Avenue, respectively.

Despite these differences in LOS, morning and afternoon peak hour travel times for the entire project corridor will be substantially improved compared to the 2040 No Build Alternative. The aggregated benefits of the proposed MnPASS lanes and spot mobility improvements for the I-35W project corridor as a whole outweigh any differences in LOS compared to the No Build Alternative.

Will the proposed project improve transit in the corridor?

Transit Travel Times

Travel times for transit riders and carpoolers will also improve by providing a more reliable trip between Minneapolis and the northern suburbs. Table 5.20 shows the improvements in average bus travel times on I-35W from the Mississippi River in Minneapolis to CSAH 23 in Lino Lakes under the 2040 Preferred Alternative in comparison to the 2040 No Build Alternative.²⁴ The

²⁴ Weighted average travel times (by hourly volume) over the three hour peak period in the peak direction (i.e., southbound I-35W during the morning peak period and northbound I-35W during the afternoon peak period).

project will help alleviate peak hour congestion in this region of the metro area by enhancing and encouraging transit and carpooling trips.

Table 5.20 I-35W Bus Travel Time Between Minneapolis (Mississippi River) and Lino Lakes (CSAH 23) During Morning and Afternoon Peak Periods ⁽¹⁾

Peak Period Average Travel Times (Minutes) ⁽²⁾	AM Peak Period I-35W SB Buses	AM Peak Period I-35W SB GP Lanes ⁽³⁾	PM Peak Period I-35W NB Bus	PM Peak Period I-35W NB GP Lanes ⁽³⁾	Total Roundtrip Savings
2040 No Build Alternative	26 min. ⁽⁴⁾	33 min.	33 min. ⁽⁴⁾	42 min.	16 min.
2040 Preferred Alternative	20 min.	28 min.	24 min.	39 min.	23 min.

⁽¹⁾ The morning peak period is from 6:00 a.m. to 9:00 a.m. The afternoon peak period is from 3:00 p.m. to 6:00 p.m.

⁽²⁾ Weighted average travel times (by hourly volume) over the three-hour a.m. peak period and the three-hour p.m. peak period.

⁽³⁾ Travel times in the general purpose lanes for all vehicles.

⁽⁴⁾ Bus travel times under the 2040 No Build Alternative include use of bus-only shoulders.

Transit Ridership Forecasts

More motorists may also choose to take transit freeing up capacity in the general purpose lanes. Table 5.21 shows the existing and estimated future transit ridership on the three express bus routes that use the I-35W project corridor. Transit ridership is anticipated to increase by more than 50 percent from existing to future (2040) conditions. The 2040 Preferred Alternative is anticipated to result in an increase in transit ridership by approximately seven percent compared to the 2040 No Build Alternative.

Table 5.21 I-35W Express Bus Route Transit Ridership Forecasts

Number of Daily Riders	Route 250	Route 252	Route 288	Total
Existing (2014) Automatic Passenger Counts (APC)	2,025	175	625	2,825
2040 No Build Alternative	3,400	200	700	4,300
2040 Preferred Alternative	3,700	200	700	4,600

5.18.3 Measures to Minimize or Mitigate Project-Related Transportation Effects

Item 18.c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

Not applicable.

5.19 EAW Item 19: Cumulative Potential Effects

(Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items.)

5.19.1 Geographic Scales and Timeframes

Item 19.a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

Cumulative effects result from the incremental impact of the proposed project added to other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes such other actions. The geographic area considered for cumulative potential effects is the area proximate to the project limits. The projects considered are planned for construction between 2016 and 2020.

Project related environmental effects that could combine with other environmental effects and the geographic extent of the anticipated impacts are summarized in Table 5.22.

Table 5.22 Project Related Environmental Effects and Geographic Extent

Reference (Section in EA)	Topic/Issue	Project-Related Environmental Effects	Geographic Extent
Section 5.10 (EAW Item 10)	Soils and Topography (Erosion and Sedimentation Control)	Disturbed ground/soils during project construction.	Throughout project area.
Section 5.11 (EAW Item 11)	Water Resources (Stormwater and Aquatic Resources)	<ul style="list-style-type: none"> • Increase in impervious surface area (33 acres) • Impacts to aquatic resources (22.6 acres). • See Section 5.11 for a discussion of sequencing 	Throughout project area.

Reference (Section in EA)	Topic/Issue	Project-Related Environmental Effects	Geographic Extent
		(avoidance, minimization, and mitigation).	
Section 5.12 (EAW Item 12)	Existing Contamination or Potential Environmental Hazards	Total of 403 sites identified within project area.	Throughout project area
Section 5.17 (EAW Item 17)	Noise	<ul style="list-style-type: none"> Modeled noise levels above state standards. Modeled noise levels approaching/exceeding federal NAC. 	<ul style="list-style-type: none"> Throughout project area. See Figure E.20, Appendix E for proposed noise wall locations.
Section 5.18 (EAW Item 18)	Transportation	<ul style="list-style-type: none"> Increase in daily volumes compared to 2040 No Build Alternative. Similar or improved operations compared to 2040 No Build Alternative. Improved travel times and reliability. 	Throughout project area
Section 6.2	Right of Way	Work outside of existing MnDOT right of way	Five locations along project corridor (see descriptions in Section 6.2).
Section 6.6	Section 4(f) Resources	<ul style="list-style-type: none"> Trails across I-35W. Temporary closure during construction. Rice Creek Water Trail. Temporary closure during construction. 	<ul style="list-style-type: none"> Trails along CR C and CR I. Rice Creek crossing between TH 10 and CR H interchanges
Section 6.13	Water Resources (Floodplains)	Encroachments into floodplain areas	See Table 6.5 and Figure A.17 through Figure A.29, Appendix A

5.19.2 Reasonably Foreseeable Future Projects

Item 19.b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

The 2016-2019 State Transportation Improvement Program (STIP)²⁵ and the Ramsey²⁶ and Anoka County²⁷ websites were reviewed to identify present and other reasonably foreseeable future projects near the limits of the I-35W North Corridor Project. Project area cities were also contacted to identify any additional projects in their borders. Table 5.23 lists the present and reasonably foreseeable future projects identified in the study area.

Table 5.23 Present and Reasonably Foreseeable Future Projects in the Study Area

Project Number in STIP	Agency	Description	City	Timeframe
062-609-006	Ramsey County	Roadway reconstruction of CSAH 9 (CR H) from CSAH 77 to 0.1 mile east of northbound I-35W	Mounds View	2016
6284-162	MnDOT	Replace CR H bridge over I-35W (bridge #9582) and reconstruct ramp (tied to project 062-609-006)	Arden Hills	2016
6284-163	MnDOT	Replace CR E2 bridge over I-35W (bridge #9570) and replace approaches, trail on bridge, guardrail, and ponding	Arden Hills/New Brighton	2016
N/A	Ramsey County	Concrete rehabilitation on CR I between TH 10 and I-35W; includes concrete pavement restoration, catch basin repair, pedestrian curb ramp replacement, and replacement of the traffic signal at CR I and Quincy Street; CR I will be converted from 4 lanes to 3 lanes	Mounds View	2016
N/A	Ramsey County	Construct a 4-lane divided arterial roadway through the Rice Creek Commons development site from TH 96 to CR H	Arden Hills	2016-2017
N/A	Anoka County	Construct a new roundabout at the intersection of Apollo Drive (CSAH 12) and Sunset Avenue (CR 53); the intersections of 109th Avenue and Sunset Avenue, and Apollo Drive and Sunset Avenue will be consolidated	Blaine, Lino Lakes	2016
N/A	Anoka County	Complete a frontage road along both sides of Lake Drive (CSAH 23) between Pascal Avenue and Village Parkway; add a fourth leg	Lexington	2017

²⁵ Available at <http://www.dot.state.mn.us/planning/program/stip.html>

²⁶ Available at <https://www.ramseycounty.us/residents/roads-transit/future-projects>

²⁷ Available at <https://www.anokacounty.us/379/Future-Projects-Studies>

Project Number in STIP	Agency	Description	City	Timeframe
		to the signal at Griggs Avenue; add a second left turn lane onto northbound Lexington Avenue		
N/A	Private (Presbyterian Homes & Services)	Johanna Shores Senior Living Campus – multi-family residential development with 40 independent senior units located at 3200 Lake Johanna Boulevard	Arden Hills	2016
N/A	Private (Hanson Builders, Inc.)	Valentine Bluff – seven lot single-family residential subdivision located at 1895-1951 CR E2	Arden Hills	2016
N/A	City of Circle Pines	Streets within one mile of I-35W will be reconstructed	Circle Pines	2018-2020

5.19.3 Cumulative Potential Effects

Item 19.c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

Past actions that have occurred recently in the project area include the reconstruction of the interchange at CR 96 and I-35W and reconstruction of the CR F Bridge over I-35W. For CR 96 project, the existing bridge, approaches, and ramps were replaced. For the CR F project, the existing bridge was replaced and connections were added for existing sidewalks and trails. These actions were considered as part of the existing conditions in the project area.

Environmental effects resulting from the proposed I-35W North Corridor Project are summarized in Table 5.22. The other present and reasonably foreseeable future projects may also impact these same resources. Future development is taken into consideration in the traffic analysis, and the cumulative impact of these projects should result in improved traffic conditions. All other impacts from the projects listed in Table 5.23 will be addressed via regulatory permitting and approval processes; therefore, they will be individually mitigated to ensure minimal cumulative impacts occur.

Because the corridor is already largely developed, considering the types of transportation projects listed in Table 5.23, and considering regulatory permitting and approval processes, the proposed project will have a minimal cumulative impact upon the environment.

5.20 EAW Item 20: Other Potential Environmental Effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

Additional federal issues are addressed in Chapter 6. Appendix K includes a list of mitigation commitments identified for the project.

RGU CERTIFICATION. (*The Environmental Quality Board will only accept SIGNED Environmental Assessment Worksheets for public notice in the EQB Monitor.*)

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Luz Alvarez Date 8/3/16

Title Chief Environmental Officer

Chapter 6 Additional Federal Issues

This document has an Additional Federal Issues chapter because the Minnesota EAW does not address all of the federal issues required for completing an EA under the FHWA.

FHWA Technical Advisory T 6640.8A, Guidance for Preparing Environmental and Section 4(f) Documents, effective November 27, 1987 provides guidance in the format, content and processing of NEPA and Section 4(f) studies and documents. It includes the following impact categories not addressed in the EAW:

- Social Impacts
- Environmental Justice
- Considerations Relating to Pedestrians and Bicyclists
- Section 7 – Endangered Species Act
- Section 4(f) – Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites
- Section 6(f) – Land and Water Conservation Act
- Section 106 – Historic and Archaeological Resources
- Air Quality Analysis
- Construction Impacts
- Cumulative Impacts
- Economics
- Farmland Protection Policy Act
- Floodplains
- Indirect Effects
- Section 404 – Clean Water Act
- Traffic Noise Analysis
- Transit

6.1 Social Impacts

The following social impacts were evaluated for the I-35W North Corridor Preliminary Design Project:

- Travel Patterns and Access
- Accessibility

- Community Facilities and Public Services
- Community and Neighborhood Cohesiveness
- Transportation Sensitive Populations
- Income Equity
- Relocation and Right of way

6.1.1 Travel Patterns and Access

Vehicular travel patterns may change over time as a result of the proposed MnPASS lanes. Due to the added capacity on I-35W and attraction of the MnPASS lanes, traffic is expected to shift from other freeway corridors and parallel arterial routes to I-35W. The largest increase in projected volumes on I-35W under the 2040 Preferred Alternative compared to the 2040 No Build Alternative is on the segment of I-35W between I-694 and CSAH 10 (approximately 9,700 vehicles, see Table 5.12). Commuters that choose to use bus transit may change their travel times. Commuters that carpool with others outside of their household may need to change their current route in order to connect with the other carpool passengers to take advantage of the MnPASS lanes.

The proposed project does not relocate or close any access onto or off of I-35W, nor does the project alter any access across I-35W; therefore, access impacts are not anticipated.

6.1.2 Accessibility

Accessibility accommodations will be constructed at the following locations (e.g., pedestrian ramps, accessible pedestrian signals, crosswalks):

- I-35W/CR C interchange (west ramps to and from southbound I-35W);
- I-35W/CR J interchange (northbound I-35W exit ramp to CR J);
- I-35W/Lake Drive interchange (Lake Drive/Naples Street intersection);
- I-35W/95th Avenue interchange (east and west ramp terminal intersections); and
- I-35W/Lexington Avenue interchange (east and west ramp terminal intersections).

Other ramp terminal intersections in the project area have already been upgraded as part of other projects, are outside the project limits, or have no associated pedestrian facilities.

The proposed project will comply with the provisions of the Americans with Disabilities Act of 1990.

6.1.3 Community Facilities and Public Services

The project will not result in any access changes to community facilities such as schools, recreation areas, churches, or businesses. Emergency services will be able to continue use of current routes and accesses.

6.1.4 Community and Neighborhood Cohesiveness

Because the proposed project will not displace any residents (see Section 6.2), change accesses, or close roadways, long-term adverse effects to the project area's communities and neighborhoods are not anticipated.

6.1.5 Transportation Sensitive Populations

Transportation sensitive populations, including transit dependent, elderly, and handicapped individuals that rely on public transportation will benefit from the proposed project because the MnPASS lanes are expected to provide more reliable travel times for carpools, buses, and other high-occupancy vehicle services on I-35W.

6.1.6 Income Equity

Potential project impacts were assessed to determine if adding a MnPASS lane would place an unequal burden on lower income drivers or transit passengers. The equity evaluation was based on the Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts of Road Pricing (FHWA, April 2013).²⁸

Highway Users

The following table from FHWA's guidebook provides examples of those who may benefit and those who may be negatively impacted by road pricing.

²⁸ Available at <http://www.ops.fhwa.dot.gov/publications/fhwahop13033/index.htm>.

Table 6.1 Example Road Pricing Beneficiaries and Those Potentially Negatively Impacted

Direct Beneficiaries	Potentially Negatively Impacted
<ul style="list-style-type: none"> • Wealthier motorists who value their travel time savings more than their toll costs • Bus and rideshare travelers who enjoy improved service due to reduced congestion and economies of scale • Recipients of toll revenues • Local and regional communities who enjoy a better quality of life, less noise pollution, and less emissions 	<ul style="list-style-type: none"> • Lower income motorists who pay the toll because they have no travel alternative, but don't value their time savings more than the toll costs • Motorists who shift to other routes to avoid a toll • Road users on un-tolled roads who experience increased congestion • Motorists who forego trips due to tolls • Motorists who shift to transit and rideshare modes due to tolls (although service improvements due to economies of scale may make some of these net beneficiaries)

Source: Table 5-1: Example Road Pricing Beneficiaries and Those Potentially Negatively Impacted, Chapter 5.0 Evaluating Equity at the Project Level, Guidebook for State, Regional, and Local Governments on Addressing Potential Equity Impacts of Road Pricing, FHWA, April 2013.

Impact Analysis

The equity evaluation assessment compared the CORSIM modeling results for the general purpose lanes where the MnPASS lanes are proposed under 2040 Preferred Alternative to the CORSIM modeling results for the 2040 No Build Alternative (i.e., from CR C in Roseville to Lexington Avenue in Blaine). The LOS for the general purpose lanes for the 2040 Preferred Alternative and 2040 No Build Alternative is tabulated in Table 5.14 and Table 5.15 (see Section 5.18.2).

The northbound direction shows that the LOS for the general purpose lanes where the MnPASS lane is proposed either improves or stays the same as the 2040 No Build Alternative for all segments of I-35W. In general, the southbound direction also shows that the LOS for the general purpose lanes where the MnPASS lane is proposed either improves or stays the same as the 2040 No Build Alternative for all segments of I-35W. However, there is one segment of southbound I-35W where the LOS for the general purpose lanes is worse than the LOS for the 2040 No Build Alternative. The general purpose lanes on southbound I-35W between CSAH 10 and CSAH 96 are expected to operate at LOS E during the morning peak hour under the 2040 Preferred Alternative, whereas the 2040 No Build Alternative is projected to operate at LOS D (see Table 5.14). Densities in the general purpose lanes increase because the number of lanes on southbound I-35W drops from five lanes through the I-35W/TH 10 commons area to three lanes south of CSAH 10 (the two right-hand lanes exit to eastbound TH 10, see Figure A.8

and Figure A.9, Appendix A). Volumes also increase as vehicles merge onto southbound I-35W from eastbound CSAH 10.

Although the LOS for the general purpose lanes between CSAH 10 and CSAH 96 is worse because of higher densities, further evaluation of the CORSIM model results indicates that the general purpose lane user experience at this location will not be different compared to No Build conditions. Travel times for the 0.4 mile segment between CSAH 10 and CSAH 96 are projected to be 24 seconds for the general purpose lanes under both the 2040 Preferred Alternative and No Build Alternative (see Table 5.16).

The CORSIM model results shows that the Preferred Alternative does not make I-35W worse for general purpose lane vehicles at locations where the MnPASS lanes are proposed, and at some locations the roadway is improved. The aggregate travel times for the entire project corridor, highlighted in Table 5.19, shows improvements for the general purpose lanes for the 2040 Preferred Alternative compared to the 2040 No Build Alternative. Because the toll facility is only one lane on an existing multi-lane freeway, and because the MnPASS lanes operate only during peak periods in the peak direction, the project eliminates the possibility of potential negative effects listed in Table 6.1 as summarized below.

- The MnPASS lane will operate as a general purpose lane in the off-peak direction, accessible to all users.
- No user, regardless of income, is forced to pay a toll to use the general purpose lanes on I-35W; therefore, there will be no negative impact because a user was forced to pay a toll to use I-35W or forego a trip due to the toll.
- Users will not need to switch to an alternate route to avoid a toll.
- Because no users are forced to pay a toll to use I-35W, no users will be forced to use transit or other rideshare options in order to avoid the toll.
- The volume of traffic on adjacent roadways is not expected to increase. Travel demand forecasts for the 2040 Preferred Alternative show that traffic will divert from other freeway corridors and parallel arterial routes to I-35W (see Section 6.1.1).

Benefits

Metro Transit currently operates three express bus routes on the I-35W project corridor. The Preferred Alternative MnPASS lanes will benefit transit users, including low-income groups that use the express bus routes, by

providing improved travel times and a more reliable trip at no cost to transit users because buses use the MnPASS lanes for free (see Section 5.18). Carpoolers, including lower income carpoolers, will experience a congestion-free, reliable trip because they also use the MnPASS lanes for free.

The proposed project will benefit all users of I-35W, including low-income populations, by reducing congestion for all travel lanes (see Tables 6.2 and 6.3). The MnPASS lane will operate as a general purpose lane about 90 percent of the time, meaning it is open and free for all vehicles. The additional lane will function as a MnPASS lane only during weekday peak periods, providing a reliable, congestion-free option for buses, carpools, motorcycles, and single occupancy vehicles that choose to pay the fee. The new lane in the southbound direction will operate as a MnPASS lane Monday through Friday from 6:00 a.m. to 10:00 a.m. In the northbound direction, the new lane will operate as a MnPASS lane Monday through Friday from 3:00 p.m. to 7:00 p.m.

After paying for implementation and operating costs, all revenue generated from the proposed project will be split equally between MnDOT and Metro Transit to assist with future highway and transit improvements in the corridor, further benefitting both drivers and transit users.

Public Involvement

During the fall of 2015, MnDOT hosted a round of public engagement activities intended to involve low-income and minority populations in the project area. Activities were held at various apartment complexes and manufactured home parks throughout the corridor to make it easier for people to participate. Ten outreach events were held to:

- Provide information on the purpose, content, and schedule of the proposed project;
- Provide information about the MnPASS Lane System;
- Obtain input from corridor users about current travel patterns and choices; and
- Engage underrepresented communities less inclined to attend a public meeting.

At these outreach events, a survey was provided to solicit information on demographics, typical travel modes, use during peak periods, travel times, how much respondents would pay for predictable travel times and travel time savings, and what factors influence their use of transit. Although the sample size was relatively small, low-income residents that responded to the public engagement survey indicated some willingness to pay MnPASS tolls for

predictable travel times and travel time savings (e.g., less than one to two dollars). However, respondents also indicated that they would be less likely to pay the MnPASS toll as the cost increases.

Detailed information regarding the public outreach meetings and survey results are described in the *I-35W North Corridor Preliminary Design Project Public Engagement Report* in Appendix J.

6.2 Relocation and Right of way

6.2.1 What are right of way and relocation impacts?

Right of way refers to a strip of land that is used as a transportation corridor.²⁹ Property owned by MnDOT for a roadway is therefore called right of way. Many of MnDOT's highway projects require purchasing land that the agency does not own. If a property to be acquired has a residence or business on it, the residents or business may need to be relocated.

6.2.2 What are the impacts of the Project?

Preliminary construction limits extend outside of MnDOT's right of way at the following five locations along the I-35W corridor:

- An approximately 0.05 acre permanent easement will be acquired along the west side of I-35W across from the southbound I-35W entrance and exit ramps at Long Lake Road in Roseville. The fourth leg of this intersection is a private driveway to office/business park land uses west of Long Lake Road. The traffic signal equipment and sidewalk crossing are located outside of MnDOT right of way. The permanent easement is necessary to accommodate ADA accessibility improvements and to locate the traffic signal equipment within MnDOT right of way.
- Rights of entry³⁰ will be obtained through Commissioner's Orders for work outside of MnDOT right of way in the northwest quadrant of the I-35W/CR H interchange along Program Avenue.
- Rights of entry will be obtained from Ramsey County or through Commissioner's Order for work outside of MnDOT right of way in the northeast quadrant of the I-35W/I-694 interchange along Round Lake Road.

²⁹ Source: MnDOT Land Management website (<http://www.dot.state.mn.us/row/>)

³⁰ Right of entry is an agreement or permit between MnDOT and a landowner allowing access to complete activities (e.g., construction, staging, environmental testing, etc.) as specified in the agreement. A right of entry does not convey any title to the land or permanent land rights.

- Rights of entry will be obtained from Ramsey County for work outside of MnDOT right of way along the east side of I-35W and north of CR I.
- An approximately 0.9 acre temporary easement will be acquired along the east side of I-35W between TH 10 and CR J.

No relocations will be required. Acquisitions will be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

6.3 Environmental Justice

6.3.1 Why do we consider environmental justice as we plan this Project?

Executive Order (E.O.) 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,” was issued in 1994. This executive order directs federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their actions on minority and/or low-income populations. The Presidential Memorandum accompanying the executive order called for federal agencies to address impacts to minority and low-income populations in the NEPA review process.³¹

An effect is disproportionately high and adverse if it:

- Is predominately borne by a minority and/or low-income population, or
- Is appreciably more severe or greater in magnitude for the minority and/or low-income population than the adverse effect suffered by the non-minority or non-low-income population.

6.3.2 How were study area demographics collected?

Income and race/ethnicity data was collected for the area covered by block groups within 500 feet of the existing I-35W right of way limits from south of CR C to Sunset Avenue, and within 500 feet of the existing TH 10 right of way limits from I-35W to the 93rd Lane interchange (see Appendix G).³² Income data was obtained from the 2010-2014 American Community Survey 5-Year Estimates, and race and ethnicity data was obtained from the 2010 US Census. Project area city staff also provided input regarding

³¹ For more information, see <http://www.epa.gov/nepa/environmental-justice-considerations-national-environmental-policy-act-process>.

³² The 500-foot buffer was identified as a starting point for the environmental justice analysis because this is the generally-accepted limit for predicting traffic noise levels along a highway corridor and identifying traffic noise impacts (Minnesota Department of Transportation. June 15, 2015. *MnDOT Noise Policy for Type I Federal-Aid Projects*. Appendix B. Guidance on Selection and Use of Noise Analysis Locations.)

locations of Section 8 housing³³ and other known concentrations of low-income and/or minority residents in their communities.

6.3.3 Does the study area include populations protected under environmental justice?

Figure G.1 and Figure G.2 in Appendix G map the locations of environmental justice populations (low-income and/or minority populations) along the I-35W project corridor. The locations of these populations were identified based on a review of study area demographics, input from local governments, and a general understanding of the I-35W project corridor. These areas correspond with locations of public engagement activities (see Appendix J). Additional information regarding study area demographics from US Census data is summarized below.

Low-income Populations

Data from the 2010-2014 American Community Survey 5-Year Estimates (ACS) was used to identify low-income populations in the study area. Income data is available at the block group level from the ACS, so the study area included all block groups within 500 feet of the project limits (see Figure G.3, Appendix G).

FHWA defines **low-income** individual as a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.

Low-income populations are those with incomes at or below the federal poverty threshold. Poverty thresholds are updated each year by the Census Bureau and vary based on family size and composition. For example, the 2016 poverty threshold for a family of four with two children is \$24,300. 2016 HHS poverty guidelines are included in Table G.1, Appendix G.

Poverty data for the 27 block groups in the study area is reported in Table G.2, Appendix G. For context, the percentage of the population with income at or below the poverty threshold in each block group was compared to the percentage of the population with income at or below the poverty threshold for the county as a whole (16.8 percent for Ramsey County and 7.6 percent for Anoka County). Out of the 27 block groups, two in Ramsey County and four in Anoka County have higher percentages of residents with incomes at or below the poverty threshold than their respective counties.

Project area city staff also provided information on known locations of Section 8 housing or other indicators of low-income communities in their

³³ Section 8 of the Housing Act of 1937, as amended, authorizes the payment of rental housing assistance to private landlords on behalf of low-income households. The US Department of Housing and Urban Development manages the Section 8 programs.

communities. Within the study area, the following were identified by city staff (for locations, see reference IDs on Figure G.3):

- Mounds View identified three manufactured home communities (located in block groups 6, 7, and 8); and
- Arden Hills identified a manufactured home community (in block group 4), low-income rental units (in block group 5), and senior housing (in block group 2).

Minority Populations

Data from the 2010 US Census was used to identify minority populations in the study area. Race and ethnicity data is available at the census block level.

A minority is defined

as: Black or African American, Hispanic, Asian American, American Indian/Alaskan Native, and Native Hawaiian or Pacific Islander.

All census blocks within the block groups analyzed for low-income populations, including those blocks just outside of the 500 foot buffer from the I-35W right of way, were included in the identification of minority populations (see Figures G.4 through G.7, Appendix G).

Census blocks are the smallest geographic area for which Census data is tabulated and are bounded by visible features such as roads, streams, and railroad tracks, and by nonvisible boundaries such as property lines, city, township, school district, county limits, and short line-of-sight extensions of roads.³⁴ Census blocks are not delineated based on population; therefore, many census blocks do not have any population.

For the purposes of this analysis, only blocks with at least one resident were evaluated, for a total of 508 blocks in the study area.

Minorities are defined as anyone who identifies as black or African American, American Indian or Alaska Native, Asian American, Native Hawaiian or Pacific Islander, Hispanic, or multiracial. Race and ethnicity data for the 508 census blocks in the study area with population is reported in Table G.3 in Appendix G. For context, the percentage of the population that identifies as minority in each census block was compared to the percentage of the population that identifies as minority in the county as a whole (33.1 percent in Ramsey County and 14.8 percent in Anoka County). Out of the 508 census blocks, 34 census blocks in Ramsey County and 80 census blocks in Anoka County have higher percentages of minority residents than their respective counties.

Input from project area city staff did not identify any additional minority communities in the study area.

³⁴ Source: US Census Bureau (<http://blogs.census.gov/2011/07/20/what-are-census-blocks/>)

6.3.4 How did MnDOT gather feedback from low-income and minority populations during project development?

During the fall of 2015, MnDOT hosted a round of public engagement activities intended to involve underrepresented minority and low-income populations in the project area. Activities were held at various apartment complexes and manufactured home communities throughout the corridor to make it easier for people to participate. Ten outreach events were held to:

- Provide information on the purpose, content, and schedule of the proposed project;
- Provide information about the MnPASS Lane System;
- Obtain input from corridor users about current travel patterns and choices; and
- Engage underrepresented communities less inclined to attend a public meeting.

Approximately 1,900 households were directly contacted and at least 225 adults participated directly in the engagement activities. An equal number of youths also participated and were engaged in the community socials. Detailed information regarding the public outreach meetings is described in the *I-35W North Corridor Preliminary Design Project Public Engagement Report* in Appendix J.

6.3.5 What potential effects were evaluated?

The potential adverse effects of the proposed project were considered in order to assess whether the effects fall disproportionately on low-income or minority populations. Issues that were considered when evaluating disproportionately high and adverse effects to low-income and/or minority communities included social impacts (see Section 6.1), tolling and traffic impacts, noise impacts, visual impacts, air quality impacts, and right of way impacts.

Social Impacts

The proposed project does not change access to or across I-35W or to any community facilities. The project will not cause any residential or commercial relocations. An approximately 0.05 acre permanent easement will be acquired along the west side of I-35W in Roseville at Long Lake Road. This acquisition is located in an office/business park area and would not affect low-income or minority populations. Adverse social impacts to the project area are not anticipated (see Section 6.1 for more discussion of social impacts).

Tolling and Traffic Impacts

The LOS for the general purpose lanes for both the 2040 Preferred Alternative and 2040 No Build Alternative are tabulated in Table 5.14 and Table 5.15 in Section 5.18.2. The LOS for the northbound general purpose lanes where the MnPASS lane is proposed does not show a worse condition when compared to the No Build Alternative. The LOS for the southbound general purpose lanes where the MnPASS lane is proposed also does not show a worse condition when compared to the No Build Alternative, except between CSAH 10 and CSAH 96. However, the Preferred Alternative does not show a worse condition between CSAH 10 and CSAH 96 in terms of travel times. In addition, the aggregate travel times in the general purpose lanes for the 2040 Preferred Alternative shows improvements when compared to the 2040 No Build Alternative.

The Preferred Alternative does not make I-35W worse for drivers using the general purpose lanes, including any minority or low-income populations that use this corridor. Driving conditions are equally distributed to all drivers in the general purpose lanes regardless of race or income. The toll for the MnPASS lane is only associated with one travel lane on an existing multi-lane freeway. The proposed project will provide the same or better LOS and improvements in travel times in the general purpose lanes compared to the No Build Alternative. Therefore, no adverse effects to drivers, including low-income and minority populations in the corridor, are anticipated.

Noise Impacts

Section 5.17 summarizes the anticipated traffic noise impacts of the project. Detailed information regarding traffic noise impacts is discussed in the *Traffic Noise Analysis Report* in Appendix I. As discussed in Section 5.17, the proposed project will result in the following impacts:

- Daytime L10 noise levels were predicted to range between 53.0 dBA and 78.3 dBA, exceeding state noise standards at 827 receptors.
- Daytime L50 noise levels were predicted to range between 49.3 dBA and 74.0 dBA, exceeding state noise standards at 1,258 receptors.
- Nighttime L10 values were predicted to range between 52.5 dBA and 77.9 dBA, exceeding state noise standards at 2,031 receptors.
- Nighttime L50 noise levels were predicted to range between 48.7 dBA and 73.4 dBA, exceeding state noise standards at 2,061 receptors.

- Daytime L10 noise levels were predicted to approach or exceed federal noise abatement criteria at 353 receptor locations.

These impacts will occur throughout the corridor and will not disproportionately affect low-income or minority populations.

The noise analysis evaluated noise walls through the project corridor for all residential areas equally, regardless of the income status, race, or ethnicity of the affected neighborhood. A total of 36 noise walls were analyzed and evaluated against the feasibility and reasonableness criteria identified in the MnDOT Highway Noise Policy. Eight noise walls meet MnDOT's feasibility and reasonableness criteria and are proposed. Five existing noise walls will not be affected by the project and will remain unchanged. Benefited receptors, regardless of income, race, or ethnicity, will be provided an opportunity to vote for or against the proposed noise walls as part of the noise wall solicitation process.

Noise walls can have positive and negative effects on adjacent residences. Positive effects include reductions in noise levels and improved views/blocking unpleasant views. Negative effects include blocking of pleasant views, microclimate effects (i.e., blocking of sunlight and wind), and graffiti.

Four of the proposed noise walls are located adjacent to low-income and minority populations along the I-35W project corridor (Wall NC1, Wall SE1, Wall SI1, and Wall NK1). Four of the proposed noise walls are located adjacent to other non-, low-income and non-minority neighborhoods (Wall NB1, Wall SJ1, Wall NL1, and Wall NN1). The positive and negative effects of the proposed noise walls will not be predominately borne by low-income or minority populations. All populations adjacent to proposed noise walls will experience its positive and negative effects. As noted above, all benefited receptors regardless of income, race, or ethnicity will be provided an opportunity to vote for or against the proposed noise walls as part of the noise wall solicitation process. The noise wall solicitation process will be completed during the EA public comment period. Final noise mitigation decisions will be identified in MnDOT's FOF&C document, to be prepared and released following the EA public comment period.

Visual Impacts

Visual impacts from the proposed project will be minimal. The proposed project is located within an existing highway corridor that does not include any scenic views or vistas. The proposed project will widen the existing roadway within the current right of way limits, consistent with the current views of and from I-35W (see Section 5.15).

Eight noise walls are proposed along the I-35W project corridor. All proposed noise walls will be made of painted wooden planks and concrete posts. The proposed noise walls will be visible to all motorists along I-35W. As described above, the proposed noise walls are located adjacent to low-income and minority populations well as other non-, low-income and non-minority neighborhoods. The visual impacts of the proposed noise walls, either positive or negative, will affect all populations adjacent to the noise wall and will not be predominately borne by low-income or minority populations.

Air Quality Impacts

No air quality impacts are expected to result from the proposed project.

Right of Way

No relocations will be required for the Project. An approximately 0.05 acre permanent easement will be acquired along the west side of I-35W, north of CR C. This acquisition is located at the driveway entrance to several commercial office properties and a hotel. An approximately 0.9 acre temporary easement will be acquired along the east side of I-35W north of the exit to westbound TH 10 in Shoreview. The affected parcel is undeveloped. This acquisition will not preclude future development of the property. Rights of entry will be required for work outside of existing MnDOT right of way north of I-694, CR H, and CR I. These areas are within existing local roadway right of way adjacent to I-35W, and will not affect low-income or minority populations.

6.3.6 How would the project benefit minority and low-income populations?

Transit users and carpoolers, including low-income and minority populations that travel by bus or carpool, will benefit by having a faster, more reliable trip in the MnPASS lane at no additional cost. Transit vehicles and carpools use the MnPASS lanes for free.

The proposed project will benefit all users of I-35W, including low-income and minority populations, by reducing congestion and improving safety. The MnPASS lane will operate as a general purpose lane about 90 percent of the time, meaning it is open and free for all vehicles. The additional lane will function as a MnPASS lane only during weekday peak periods, providing a reliable, congestion-free option for buses, carpools, motorcycles, and single occupancy vehicles that choose to pay the fee. The new lane in the southbound direction will operate as a MnPASS lane Monday through Friday

from 6:00 a.m. to 10:00 a.m. In the northbound direction, the new lane will operate as a MnPASS lane Monday through Friday from 3:00 p.m. to 7:00 p.m.

Neighborhoods adjacent to the proposed noise walls, including low-income and minority residents, will benefit from lower traffic noise levels behind the noise walls.

6.3.7 Environmental Justice Finding

Will the Project have a disproportionately high and adverse effect on low-income or minority populations?

Based on the analysis presented above, the proposed project will not result in disproportionately high or adverse effects to low-income or minority populations.

6.4 Considerations Relating to Pedestrians and Bicyclists

The proposed project is limited to I-35W and TH 10 where bicycle and pedestrian access is prohibited. Temporary closure of trails crossings under I-35W at CR C and CR I will occur during construction. Temporary detour routes will be provided during the trail closures. No permanent impacts to bicycles or pedestrians are anticipated, and there are no opportunities for bicycle or pedestrian improvements associated with the project.

See Section 6.1.1 for a discussion of accessibility improvements at ramp terminal intersections.

6.5 Section 7 – Endangered Species Act

6.5.1 What is Section 7 of the Endangered Species Act?

Section 7 of Endangered Species Act of 1973, as amended, requires each federal agency to review any action that it funds, authorizes, or carries out to determine whether it may affect threatened, endangered, or proposed species or listed critical habitat. Federal agencies (or their designated representatives) must consult with the US Fish and Wildlife Service (USFWS) if any such effects may occur as a result of their actions. Consultation with the USFWS is not necessary if the proposed action will not directly or indirectly affect listed species or critical habitat. If a federal agency finds that an action will have no effect on listed species or critical habitat, it should maintain a written record of that finding that includes the supporting rationale.

6.5.2 What federally-protected species are in the study area?

According to the official County Distribution of Minnesota's Federally-Listed Threatened, Endangered, Proposed, and Candidate Species list (revised in April 2015) maintained by the USFWS, the project is within the distribution range of four species listed in Table 6.2.

Table 6.2 Federally-Listed Threatened, Endangered, Proposed, and Candidate Species in Anoka and Ramsey Counties

County	Species	Status	Habitat
Anoka and Ramsey	Northern long-eared bat (<i>Myotis septentrionalis</i>)	Threatened	Hibernates in caves and mines, swarming in surrounding wooded areas in autumn; roosts and forages in upland forests during spring and summer
Ramsey	Higgins eye pearl mussel (<i>Lampsilis higginsii</i>)	Endangered	Mississippi River
Ramsey	Snuffbox (<i>Epioblasma triquetra</i>)	Endangered	Mississippi River
Ramsey	Winged mapleleaf (<i>Quadrula fragosa</i>)	Endangered	St. Croix River

6.5.3 Determinations under Section 7

Northern Long-Eared Bat

Determination: May affect, but will not cause prohibited incidental take.

The implementation of this project will involve work on, or the replacement of, several bridges as well as two to three acres of tree clearing. Most of the bridge work and tree removal will occur in areas that will not be considered suitable habitat for the northern long-eared bat because of the high density urban setting. Areas of potential habitat are found along Rice Creek and near natural areas between CR 10 and Lexington Avenue.

There are no documented maternity roost trees or hibernacula in the project area. Although there is a slight chance that the project's bridge work and tree removal could impact bats, it is not considered to be prohibited incidental take based on the final 4(d) rule for the northern long-eared bat as published on January 14, 2016 and effective beginning February 16, 2016.

MnDOT, acting as the non-federal representative for FHWA, has determined that the proposed action may affect, but will not cause a prohibited incidental take of the northern long-eared bat (*Myotis septentrionalis*) and requested concurrence from the USFWS on February 9, 2016. A

response from USFWS was not received within 30 days of this request; therefore, USFWS concurrence is implied.

Higgins Eye Pearlymussel

Determination: No effect.

There are no known occurrences of this species within the project area. There is no critical habitat designated for this species. Therefore, MnDOT, on behalf of FHWA, has made a determination of no effect for this species.

Snuffbox

Determination: No effect.

There are no known occurrences of this species within the project area. There is no critical habitat designated for this species. Therefore, MnDOT, on behalf of FHWA, has made a determination of no effect for this species.

Winged Mapleleaf

Determination: No effect.

There are no known occurrences of this species within the project area. There is no critical habitat designated for this species. Therefore, MnDOT, on behalf of FHWA, has made a determination of no effect for this species.

6.6 Section 4(f) – Parks, Recreation Areas, Wildlife and Waterfowl Refuges, and Historic Sites

6.6.1 What is Section 4(f)?

Section 4(f) refers to the original section within the US Department of Transportation Act of 1966 that set the requirement for consideration of park and recreational lands, wildlife and waterfowl refuges, and historic sites in transportation project development. The law, now codified in two places (49 USC 303 and 23 USC 138), is implemented by FHWA and the Federal Transit Administration (FTA) through regulations found at 23 CFR 774.

According to FHWA guidelines, Section 4(f) applies to all projects that receive funding from or require approval by an agency of the US Department of Transportation (US DOT), including FHWA.

6.6.2 What is a Section 4(f) “use”?

FHWA defines a Section 4(f) “use” as either a direct use or constructive use. A direct use occurs when land is permanently incorporated into a transportation facility or when there is a temporary occupancy of land that is adverse to a resource protection under Section 4(f). Constructive use occurs when a project's proximity impacts are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are "substantially impaired."

Before approving a project that "uses" a Section 4(f) resource, FHWA must find that there is no prudent and feasible alternative and that the selected alternative minimizes harm to the resource. If there is a prudent and feasible alternative that completely avoids Section 4(f) resources, it must be selected. If there is no prudent and feasible alternative that avoids Section 4(f) resources, FHWA has some discretion in selecting the alternative that causes the least harm to those resources.

In addition, FHWA regulations state that when a Section 4(f) use is anticipated, applicable regulations also require consultations with the official having jurisdiction over the resource to verify the site's significance and coordinate conclusions on use of the land, including efforts to avoid or mitigate the impacts.

6.6.3 How were Section 4(f) resources identified?

The identification of Section 4(f) resources involved a review of mapping and data sources for publicly owned lands in the project area as well as any potential historic sites, whether privately or publicly owned. FHWA is responsible for making the determination regarding the applicability of Section 4(f) on identified resources.

6.6.4 What Section 4(f) resources are located in the project area?

Several potential Section 4(f) resources were identified within the general project vicinity (see Section 5.9 for an inventory of parks and trails in the project area and figures in Appendix E). After reviewing the resource locations, the project limits, and the proposed activities involved near these locations, all but four were eliminated from further analysis under Section 4(f). A description of these resources, the anticipated project related impacts, and considerations related to Section 4(f) are provided below. There are no historic properties determined eligible or listed on the National Register of Historic Places (NRHP) within the project area.

City of Roseville Non-motorized Recreational Trail

A non-motorized recreational trail is located along the south side of CR C at the I-35W/CR C interchange in Ramsey County. The trail facility crosses the project limits as it traverses under I-35W. This trail is part of the extensive local trail network managed by the City of Roseville.

The project includes reconstruction of the I-35W bridges over CR C. In order to conduct the necessary improvements and due to safety considerations, the section of the CR C trail in the immediate vicinity of the I-35W bridge will be closed for public use for the duration of the bridge work.

MnDOT has a limited use permit (LUP) with the City of Roseville for the CR C trail. There is a termination clause in the LUP that states that the trail must be removed from MnDOT right of way given proper notice. Due to the structure of the LUP, FHWA has determined that the trail does not constitute a long-term public interest; therefore, no Section 4(f) involvement is necessary.

Rice Creek Water Trail

The Rice Creek Water Trail begins in the City of Lino Lakes at Peltier Lake. Rice Creek flows generally to the southwest, traveling 23 miles through several area lakes until its confluence with the Mississippi River in the city of Fridley. Rice Creek crosses under I-35W just to the south of the I-35W/CR H interchange. The Rice Creek Water Trail offers a wide variety of paddling and other outdoor recreational opportunities.

The project will involve an extension of the existing Rice Creek box culvert to the west of I-35W. In order to conduct the necessary improvements and due to safety considerations, this section of the water trail will be temporarily closed for the duration of the culvert work.

The impact to the Rice Creek Water Trail meets the definition of a temporary occupancy, as described below. FHWA intends to make a determination that the proposed project will require a temporary occupancy but will not be a Section 4(f) use.

- *The land use is of short duration (defined as less than the time needed for the construction of the project).* The duration of time needed to complete the culvert extension will be minimal in comparison to the overall project construction schedule.
- *There is no change in ownership of the land.* There will be no ownership transfer required for the culvert extension work or any work in the Rice Creek area.

- *The scope of the work must be minor.* The existing culvert will remain in place. An extension will be added on the western end to accommodate the additional lane width. The extension will be placed at the existing culvert elevation and follow the existing culvert dimensions.
- *There are no temporary or permanent adverse changes to the activities, features, or attributes of the property.* During construction, the portion of the water trail that crosses under I-35W will be closed to recreational use. There are access points before the construction area at CR I (approximately 1.5 miles upstream) and just after the construction area at Old Highway 8. MnDOT will perform the work at the Rice Creek culvert when water levels are reduced. Typically, use of the water trail is diminished when water levels are down due to navigation issues. The extension of the culvert does not interfere with the activities of the trail on either a permanent or temporary basis.
- *The land must be fully restored to a condition at least as good as prior to the project.* Any disturbed areas will be restored to pre-project conditions.
- *There must be documented agreement from the official(s) with jurisdiction over the property with the above conditions.* The Ramsey County Parks and Recreation Department, the official with jurisdiction for the Rice Creek Water Trail, has agreed that the temporary closure of the water trail is not an adverse effect (see correspondence in Appendix D).

MnDOT will perform the work at the Rice Creek culvert when water levels are reduced (i.e., low-flow, cold weather periods). Typically, use of the water trail is diminished when water levels are down due to navigation issues. Therefore, the proper timing of construction activities can greatly minimize any recreational impacts. FHWA and MnDOT will continue to coordinate with the Ramsey County Parks and Recreation Department in regards to timing of work and duration of construction activities. Signs will be provided along Rice Creek and at the CR I trailhead informing any water trail users of the culvert work at I-35W.

County Road I Trail

The City of Shoreview manages a non-motorized recreational trail located along CR I in Ramsey County. This bicycle and pedestrian facility crosses the project limits as it traverses under I-35W. This local trail connects the east and west sides of I-35W and the Rice Creek North Regional Trail to other adjoining facilities.

To accommodate the increased number of travel lanes, MnDOT will reconstruct the I-35W bridge over CR I. In order to conduct the necessary

improvements and due to safety considerations, the section of the CR I trail in the immediate vicinity of the I-35W bridge will be closed for public use for the duration of the bridge work.

MnDOT has a limited use permit (LUP) with the Cities of Shoreview and Mounds View for the CR I trail. There is a termination clause in the LUP that states that the trail must be removed from MnDOT right of way given proper notice. Due to the structure of the LUP, FHWA has determined that the trail does not constitute a long-term public interest; therefore, no Section 4(f) involvement is necessary.

Rice Creek Trail North Regional Trail Corridor

The Rice Creek Trail North Regional Trail Corridor is located along the east side of I-35W, and runs from the I-35W/CR H interchange northeast to Shoreview and beyond. A parcel located in the northeast quadrant of the I-35W/CR I interchange was once part of the Rice Creek North Regional Trail Corridor and classified as parkland. However, a portion of the property adjacent to I-35W was removed from recreational use when Rice Creek Parkway was constructed, severing this area from the larger Rice Creek North Regional Trail property to the east. This land between I-35W and Rice Creek Parkway is owned by the Ramsey County Parks and Recreation Department.

A fill slope will be constructed along the east side of I-35W north of CR I, extending outside of MnDOT right of way into the Ramsey County property between I-35W and Rice Creek Parkway.

It has been determined that the land between I-35W and Rice Creek Parkway no longer provides a recreational use. Maps for Rice Creek North Regional Trail show the park boundary being located east of Rice Creek Parkway. Ramsey County will officially survey the park boundary east of Rice Creek Parkway in spring 2016. The Ramsey County Board will then take action to officially establish the park boundary east of Rice Creek Parkway. Use of the land between I-35W and Rice Creek Parkway for non-recreational purposes has also been confirmed through information provided by the Ramsey County Parks and Recreation Department. Therefore, no Section 4(f) involvement is necessary.

6.6.5 Will the project result in a Section 4(f) use?

The CR C and CR I trails are located within MnDOT right of way under a limited use permit with MnDOT and do not constitute Section 4(f) resources. FHWA intends to make a determination that the proposed project will require a temporary occupancy for the Rice Creek Water Trail, but will

not be a Section 4(f) use. The project will not require permanent acquisition of any land from publicly-owned parks or recreational lands. Therefore, there is no Section 4(f) involvement with the project.

6.7 Section 6(f) – Land and Water Conservation Act

Section 6(f) of the Land and Water Conservation Fund Act of 1965 (LAWCON) stipulates that any land or facility planned, developed, or improved with LAWCON funds cannot be converted to uses other than parks, recreation, or open space unless land of at least equal fair market value and reasonably equivalent usefulness is provided. Anytime a transportation project would cause such a conversion, regardless of funding sources, such replacement land must be provided.

The DNR maintains a list of properties in the state that are subject to Section 6(f) requirements, which is available on the DNR's LAWCON webpage.³⁵ Two parks subject to Section 6(f) are located near the project area: Tony Schmidt Regional Park and Rice Creek Corridor. However, these parks are not within the project limits and will not be impacted by the proposed project. Therefore, there are no Section 6(f) impacts.

6.8 Section 106 – Historic and Archaeological Resources

The proposed project was reviewed by MnDOT Cultural Resources Unit (CRU) staff for compliance with Section 106 of the National Historic Preservation Act. CRU determined that there will be no historic properties affected by the proposed project (see correspondence in Appendix D).

6.9 Air Quality Analysis

See Section 5.16 for discussion of the air quality analysis conducted for this project.

6.10 Construction Impacts

Temporary construction impacts are described in Section 5.6. Dust generated during construction is discussed in Section 5.16. Noise impacts during construction are discussed in Section 5.17.

Construction of the proposed project is projected to last four construction seasons. All lanes and interchange ramps will be kept open in each direction

³⁵ Available at http://files.dnr.state.mn.us/aboutdnr/lawcon/lawcon_1.pdf

during the winter months between each construction season. The anticipated construction staging plan is summarized below. The first two stages of construction are anticipated to last for three years. The third stage of construction is anticipated to be complete in one construction season. The construction staging plan is preliminary and subject to change.

- Stage One: During the first stage of construction, all southbound lanes between CR C and CR J will be closed for construction, and traffic will be crossed over to northbound I-35W and reduced by one lane in each direction.
- Stage Two: During the second construction stage, all traffic will be switched over to southbound I-35W while the northbound roadway is closed and reconstructed between CR C and CR J. Traffic will be reduced by one lane in the northbound direction during this stage (i.e. three lanes for southbound I-35W, two lanes for northbound I-35W).
- Stage Three: The northern segment of the project between CR J and Sunset Avenue will be constructed in two halves during stage three of construction. During the first half of stage three, the southbound roadway will be closed and reconstructed, and all traffic will be crossed over to the northbound roadway. During the second half of stage three, the northbound roadway will be closed and reconstructed, and all traffic will be crossed over to the southbound. Two lanes will be maintained in each direction during the entire third stage of construction.

A Transportation Management Plan (TMP) will be developed for the project during final design. This plan will outline final decisions regarding the construction schedule, traffic impacts, detour routes, and allowable lane closures. The TMP will also identify ramp closures during construction. Outreach and coordination with cities, counties and other affected parties (e.g., emergency service providers) along the corridor will occur prior to and throughout construction.

A temporary access route will be provided for pedestrians and bicyclists during closure of the trails under I-35W at CR C and CR I. These routes will be identified during final design.

6.11 Cumulative Impacts

Cumulative potential effects are discussed in Section 5.19.

6.12 Economics

A 0.05 acre permanent easement will be acquired along the west side of I-35W north of CR C in the City of Roseville. This partial acquisition will impact less than 0.5 percent of the affected parcel. A 0.9 acre temporary easement will be acquired along the east side of I-35W, north of the exit to westbound TH 10 in the City of Shoreview, Ramsey County. This temporary easement will impact approximately five percent of the affected parcel, and will not affect future development of this parcel. Because right of way impacts are limited to a partial acquisition of one parcel and a temporary easement on another parcel, no fiscal impacts are anticipated in Ramsey County as a result of the project.

No right of way acquisition or relocations are required for the portion of the project in Anoka County. Therefore, no land, residences, or businesses will be taken out of the tax base. The project will not result in any fiscal impacts in Anoka County.

6.13 Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and farmland of statewide or local importance.

If land is in an urbanized area as designated by the 2010 Census Urban Area Reference Maps,³⁶ any farmland is exempt from protection by the FPPA. The majority of the proposed project is located within an urban area. The one area not in a designated urban area is the triangle of land to the east of I-35W bounded by I-35W, Lexington Avenue, and an open channel ditch that extends east from North Road.

The NRCS Web Soil Survey was used to review the soils within the project limits. No prime or unique farmland was identified, but farmland of statewide importance is located within the project limits in the area covered by the FPPA. However, the project limits are completely within existing MnDOT right of way in this area. Therefore, there will be no conversion of farmland to nonagricultural use as a result of the proposed project.

³⁶ Available at <https://www.census.gov/geo/maps-data/maps/2010ua.html>

6.14 Floodplain Impacts

6.14.1 Why are floodplain areas protected and who manages floodplains?

Floodplains³⁷ are protected by local, state, and federal legislation because of their ecological value and functionality. The federal laws protecting floodplains include Section 404 of the Clean Water Act (CWA), Executive Order 11988, and Executive Order 13690. The Federal Emergency Management Agency (FEMA) is the federal agency responsible for mapping and managing floodplains. Flood Insurance Rate Maps (FIRM) have been developed by FEMA for most waterways via floodplain models and Flood Insurance Studies (FIS). Substantial changes to floodplain boundaries require a letter of map revision (LOMR) from FEMA.

State and local floodplain protection is enforced through DNR public waters work permits, watershed districts permits, or city approvals. The required permits vary depending on the feature, size of impact, location of impact, and other factors.

6.14.2 Are there floodplains within the project area?

Flood Insurance Rate Maps (FIRMs), FEMA Flood Insurance Studies (FIS), and the Rice Creek Watershed District (RCWD) floodplain model results were used to identify FEMA 100-year floodplains³⁸ and floodways³⁹ within the project limits. FEMA 100-year floodplain and floodway GIS shapefiles were downloaded from the Minnesota Geospatial Commons.⁴⁰

The RCWD has completed additional floodplain modeling using current rainfall data (Atlas 14). The RCWD floodplain elevations and model details were obtained from RCWD.

³⁷ Floodplains are defined by Executive Order 11988 as “the lowland and relatively flat areas adjoining inland and coastal waters including flood-prone areas of offshore islands, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.” Available at <http://www.fema.gov> (accessed September 2015).

³⁸ According to 44 CFR §9.4, 100-year floodplain (also known as base floodplain) means the floodplain “for the flood which has a one percent chance of being equaled or exceeded in any given year.” Available at <http://www.fema.gov> (accessed September 2015)

³⁹ According to 44 CFR §9.4, “floodway means that portion of the floodplain which is effective in carrying flow, within which this carrying capacity must be preserved and where the flood hazard is generally highest, i.e., where water depths and velocities are the greatest. It is that area which provides for the discharge of the base flood so the cumulative increase in water surface elevation is no more than one foot.” Available at <http://www.fema.gov/floodway> (accessed September 2015)

⁴⁰ Minnesota Geospatial Commons, available at <https://gisdata.mn.gov/> (accessed July 2015)

Table 6.3 lists floodplains within the project limits and the associated drainage area or waterbody of the floodplain. Floodplain boundaries are illustrated in the drainage overview maps in Appendix A (see Figure A.17 through A.29). The floodplain boundaries illustrated in Appendix A are a combination of FEMA and RCWD mapping, and represent the higher elevation of the two as worst-case scenario for identifying potential impacts. There are no FEMA-mapped floodways within the project area.

Table 6.3 Floodplains Within the Project Area

Associated Drainage Area	Drainage Overview Map (see Appendix A)	Lake, Stream, Ditch or Wetland ID	FEMA 100-Year Floodplain (Map Number)	RCWD 100-Year Floodplain
Ramsey County Ditch (RCD) 2, 3, 4, 5	Figure A.18 Figure A.19	Jones Lake and associated drainage area	No	Yes
	Figure A.20	Farrel's Lake (W-29) and associated drainage area	Yes (27123C0010G)	Yes
	Figure A.20	W-118	No	Yes
Anoka/Ramsey Judicial Ditch 1 (ARJD1)	Figure A.29	W-92 and associated drainage area	Yes (27123C0005G)	Yes
	Figure A.29	W-86 and associated drainage area	Yes (27123C0005G)	Yes
	Figure A.24 Figure A.25	W-79	No	Yes
	Figure A.24 Figure A.25	W-58 and associated drainage area	No	Yes
	Figure A.24	W-80 and associated drainage area	Yes (27003C0340E)	Yes
	Figure A.23 Figure A.29	W-85	No	Yes
	Figure A.24	W-57 and associated drainage area	No	Yes
Rice Creek	Figure A.22	R-45	Yes (27123C0010G)	Yes
Anoka County Ditch (ACD) 53-62	Figure A.26	R-65	Yes (27003C0343E)	Yes
	Figure A.27	Level 1 delineated wetland between Sunset Avenue and Lexington Avenue	Yes (27003C0345E)	Yes

6.14.3 Will the project result in floodplain impacts?

A floodplain impact can be described as a disturbance or fill within a 100-year floodplain boundary resulting in a floodplain storage loss. Floodplain impacts were estimated based on typical cross sections and construction limits relative to floodplain boundaries/elevations. The highest flood elevation from either FEMA maps or RCWD modeling was used in the floodplain analysis (see floodplain boundaries in the drainage overview maps in Appendix A).

Per RCWD rules, all fill placed within the floodplain must be mitigated within the same reach of the waterway as the placed fill (impact). RCWD and FEMA typically require modeling that demonstrates the build condition results in no rise of the existing floodplain elevation of any floodplain upstream or downstream of an impact. The definition of no rise states that the maximum change in peak water surface elevation (100-year elevation) must not be greater than 0.01 feet.

Floodplain encroachments from the project are listed in Table 6.4 and illustrated in the drainage overview maps in Appendix A. It is not practical to avoid longitudinal and transverse encroachments because the proposed project is located along an existing highway and floodplains are located within and adjacent to the existing highway right of way. Floodplain assessments for each of the affected floodplains are described below.

Table 6.4 Floodplain Encroachments

Floodplain	Associated Stream or Wetland ID	Drainage Overview Map (see Appendix A)	Type of Encroachment	Encroachment Length
Jones Lake	N/A	Figure A.18	Longitudinal	2,400 feet
Rice Creek	R-45	Figure A.22	Transverse	490 feet
Unnamed Wetlands at CR I	W-97 and W-98	Figure A.23	Longitudinal	1,050 feet
ARJD1 (I-35W north of CR J)	W-80 W-183 W-57 W-58	Figure A.24 Figure A.25	Longitudinal	3,760 feet
ARJD1 (TH 10 west of I-35W)	N/A ⁽¹⁾	Figure A.29	Longitudinal	220 feet
ACD 53-62	Level 1 wetland delineation	Figure A.27	Longitudinal	805 feet

⁽¹⁾ Includes floodplain encroachment along the north side of TH 10 west of I-35W at the ARJD1 culvert crossing under the highway. There is no associated stream or wetland at this location (see Figure A.29, Appendix A).

Jones Lake Floodplain

The Jones Lake Floodplain is located near the I-35W/CR D interchange. The floodplain boundary is based on RCWD's floodplain mapping. I-35W is currently located within the floodplain boundary. There is no potential for raising the roadway grade at this location based on the scope of the project. Fill in this floodplain area is from construction of the MnPASS lanes within the center median of I-35W. There is no significant increased potential for interruption of a transportation facility. Impacts on the natural environment will be minimal because the fill is within the grassed center median of an existing freeway facility. No significant increased risk of flooding will result because the fill will increase the elevation of the driving surface in the center median of I-35W. The project will not cause incompatible floodplain development because the project does not provide new access to the Jones Lake floodplain area. Therefore, no significant floodplain impacts are expected.

Rice Creek Floodplain (R-45)

The Rice Creek floodplain is located on both sides of I-35W, south of the CR H interchange. The project includes construction of an additional southbound I-35W travel lane and auxiliary lane at this location. The existing Rice Creek box culvert crossing beneath I-35W will be lengthened to accommodate the roadway expansion. A hydraulic analysis was completed for the Rice Creek crossing. There will be no stage increase as a result of the lengthened culvert. There is no significant potential for interruption of a transportation facility. The roadway will be constructed above the floodplain elevation. Impacts on the natural environment will be minimal. No significant increased risk of flooding will result because compensatory floodplain storage has been identified in the proposed treatment pond within the CR H interchange which is hydraulically connected to the floodplain (see Figure A.22, Appendix A). The project will not cause incompatible floodplain development because the project does not provide new access to the floodplain area. Therefore, no significant floodplain impacts are expected.

Unnamed Wetlands at CR I (W-97 and W-98)

This floodplain area is located along the entrance ramp from CR I to southbound I-35W, and will be impacted by the proposed realignment of the CR I ramp. There is no significant potential for interruption of a transportation facility. The roadway will be constructed above the floodplain elevation. Impacts on the natural environment will be minimal. No significant increased risk of flooding will result because compensatory

floodplain storage has been identified in the ramp infield area which is hydraulically connected to the floodplain (see Figure A.23, Appendix A). The project will not cause incompatible floodplain development because the project does not provide new access to the floodplain area. Therefore, no significant floodplain impacts are expected.

ARJD1 (W-80, W-57, W-58, and W-183)

The ARJD1 floodplain area is located north of CR J on the east and west sides of I-35W. This floodplain area will be impacted by construction of proposed stormwater ponds within the I-35W/CR J/Lake Drive interchange area, construction of the proposed MnPASS lanes in the center median of I-35W, and slope and ditch grading along the east side of I-35W. There is no significant potential for interruption of a transportation facility. The roadway will be constructed above the floodplain elevation. Impacts on the natural environment will be minimal. No significant increased risk of flooding will result because the ponds will be excavated at the I-35W/CR J/Lake Drive interchange and additional storage will be created within the floodplain. The project will not cause incompatible floodplain development because the project does not provide new access to the floodplain area. Therefore, no significant floodplain impacts are expected.

ARJD1 (West of I-35W)

The ARJD1 floodplain area is also located west of I-35W on the north and south sides of TH 10. This floodplain area will be impacted by construction of the proposed auxiliary lane along westbound TH 10 between I-35W and 93rd Lane. There is no significant potential for interruption of a transportation facility. The roadway will be constructed above the floodplain elevation. Impacts on the natural environment will be minimal. No significant increased risk of flooding will result because compensatory storage will be provided along the north side of TH 10 at the ARJD1 crossing (see Figure A.29, Appendix A). The project will not cause incompatible floodplain development because the project does not provide new access to the floodplain area. Therefore, no significant floodplain impacts are expected.

ACD53-62

The ACD53-62 floodplain area is located north of Lexington Avenue on the east and west sides of I-35W. This floodplain area will be impacted by the outside slope construction associated with the proposed unbonded overlay. There is no significant potential for interruption of a transportation facility. The unbonded overlay will be constructed above the floodplain elevation.

Impacts on the natural environment will be minimal because the floodplain impact is located along the edge of an existing highway. No significant increased risk of flooding will result because compensatory storage will be provided in the roadside ditch (see Figure A.27, Appendix A). The project will not cause incompatible floodplain development because the project does not provide new access to the floodplain area. Therefore, no significant floodplain impacts are expected.

6.15 Indirect Effects

The Council on Environmental Quality's *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act* requires that both direct and indirect impacts of a proposed action be evaluated. Direct effects are caused by, and coincide in time and place, with the proposed action. Indirect effects are caused by the action but are later in time or further removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects related to changes in the pattern of land use, population density, or growth rate, and related effects on air, water, and other natural systems.

The project area is mostly developed with a few areas of open space/undeveloped land throughout the corridor. Changes to traffic patterns or accesses are not anticipated, so the project is not anticipated to induce land use changes or new development.

6.16 Section 404 – Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a program to regulate the discharge of dredged or fill material into the Waters of the United States, excluding those wetlands that are hydrologically isolated on the landscape (*Rapanos v. United States*, 547 U.S. 715 (2006)). Section 404 of the CWA is under the purview of the USACE and requires a permit to be issued by the USACE prior to the placement of any dredged or fill material into any Water of the United States, including wetlands. The USACE is responsible for administering the Section 404 permitting program (including individual and general permit discussions), conducting Approved or Preliminary Jurisdictional Determinations (JD), developing policy and guidance, and enforcing all other Section 404 provisions. Transportation projects with less than three acres of impact to Waters of the US (not including wetlands confined to the bed and banks of roadside ditches) are covered by a general permit, whereas more than three acres of impact requires an individual permit.

Delineated wetland boundaries are illustrated in Figure A.17 through A.29, Appendix A.

See Section 5.11 for a discussion of aquatic resources within the project area. Aquatic resource impacts are tabulated in Table 5.9. Approximately 22.6 acres of impact is anticipated based on preliminary design construction limits. Table 5.9 also identifies compensatory mitigation requirements.

6.17 Traffic Noise

See Section 5.17 for a discussion of traffic noise. The Traffic Noise Analysis Report is included in Appendix I.

6.18 Transit

Existing Metro Transit routes on I-35W include Routes 250, 252, and 288. All three are express bus routes that only operate on weekdays during the morning and afternoon peak periods. Route 250 serves Lino Lakes to downtown Minneapolis, Route 252 serves Blaine to the University of Minnesota, and Route 288 serves Forest Lake to downtown Minneapolis.

Benefits to transit as a result of the project are described in Section 5.18 (EAW Item 18).

Chapter 7 Agency and Public Involvement

7.1 Summary of Agency and Public Involvement

7.1.1 Planning Phase (I-35W North Corridor Managed Lanes Corridor Study)

During the I-35W North Managed Lanes Corridor Study process, agencies and members of the public were engaged and communicated with in a variety of ways.

Prior to holding the first round of public open houses (described below), there was an elected officials briefing in April 2012 to provide project information to elected officials in the corridor, including city and county elected officials and regional appointed officials, receive their comments, and answer questions.

There were two series of public open houses held during this phase of the project. The first was in April 2012 and the second was in February 2013. For the first series, there were two meetings (one in Blaine and one in Minneapolis) to introduce the study, describe existing conditions in the study area, and present alternatives being considered and the proposed screening methodology. The second series also consisted of two meetings (one in Blaine and one in Minneapolis) and presented the study's recommendations and next steps. Public comments were gathered during both rounds of open houses.

Presentations were also made to cities, counties, and other local organizations when requested. Presentations were given to a meeting of Anoka County elected officials, the North Metro I-35W Corridor Coalitions, and the I-35W/E Coalition.

Project updates were posted on the project website throughout the study. Updates were provided to the Technical Advisory Committee (TAC) quarterly, and TAC members used those updates to inform their elected officials and constituents.

7.1.2 Preliminary Design Phase (I-35W North Corridor Preliminary Design Project)

Neighborhood Meetings

In the fall of 2015, MnDOT hosted a round of public engagement activities intended to involve low-income and minority populations. Activities were held at apartment complexes and manufactured home parks through the corridor to make it easy for people to participate. The purpose of these events was to:

- Provide information on the purpose, content, and schedule of the proposed project;
- Provide information about the MnPASS Lane System;
- Obtain input on current travel patterns and choices from corridor users; and
- Engage underrepresented communities less inclined to attend a public meeting.

Ten outreach events were held in locations selected based on proximity to the corridor and demographic data sourced from the 2009-2013 American Community Survey and 2010 US Census. Engagement tactics varied depending on property owner/manager input and included community socials, informational meetings, and door-to-door engagement.

For more details on the outreach events and the information gathered from participants, see the Fall 2015 Public Engagement Report in Appendix G.

Public Outreach Meetings

In the spring of 2016, MnDOT hosted two public outreach meetings. One meeting was held at the north end of the corridor in Blaine. The second meeting was held at the south end of the corridor in St. Anthony Village. The purpose of these outreach meetings was to:

- Provide information on the purpose, scope, funding and schedule of the proposed project;
- Provide information about the MnPASS Lane System; and
- Provide information about proposed noise walls and the noise wall solicitation process.

Advisory Committee

An Advisory Committee was formed for the I-35W North Corridor Project in March 2015. The role of the committee is to provide technical guidance to the project team, provide feedback on study processes and recommendations, provide a forum to disseminate information, help communicate with respective agencies and constituencies, and help resolve issues. The committee meets approximately monthly.

Agencies and organizations represented on the Advisory Committee include:

- Cities
 - Lino Lakes
 - Blaine
 - Circle Pines
 - Lexington
 - New Brighton
 - Shoreview
 - Arden Hills
 - Mounds View
 - Roseville
- Counties
 - Anoka County
 - Ramsey County
- Agencies
 - Metropolitan Council
 - Metro Transit
 - MnDOT
 - FHWA
- Organizations
 - I-35W North Coalition

Project Website

Project information is available on MnDOT's website at <http://www.dot.state.mn.us/metro/projects/i35wroseville/index.html>.

7.1.3 Persons with Limited English Proficiency (LEP)

Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency," requires federal agencies to ensure that their services and activities are meaningfully accessible to individuals with limited English proficiency. All print materials for the public outreach events were produced in English, Spanish, and Hmong, and Spanish-speaking staff were

present at public outreach events where property managers had indicated a potential need.

7.2 Public Comment Period and Public Hearing for the EA

Comments from the public and agencies affected by this project are requested during the public comment period described on the transmittal letter distributing this EA. A combined public informational meeting/public hearing will be held after this EA has been distributed to the public and to the required and interested federal, state, and local agencies for their review.

At the informational meeting/public hearing, preliminary design layouts for the alternatives under consideration along with other project documentation will be available for public review. The public will also be given the opportunity to express their comments, ideas, and concerns about the proposed project. These comments will be received at the hearing and during the remainder of the comment period and will become a part of the official hearing record.

7.2.1 Distribution and Availability of the EA

Copies of the EA have been sent to agencies, local government units, libraries, and others per Minnesota Rules, part 4410.1500.

Additional information on the project can be found online at <http://www.dot.state.mn.us/metro/projects/i35wroseville/index.html>.

Hard copies of the EA are available at the MnDOT Metro District Office, city halls in the project area, and the following public library locations:

Ramsey County

MnDOT Metro District (Water's Edge)
1500 West County Road B2
Roseville, MN 55113

Roseville City Hall
2660 Civic Center Drive
Roseville, MN 55113

Ramsey County Library – Roseville
2180 North Hamline Avenue
Roseville, MN 55113

New Brighton City Hall
803 Old Highway 8
New Brighton, MN 55112

Ramsey County Library – New Brighton
400 10th Street NW
New Brighton, MN 55112

Anoka County

Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

Anoka County Library - Northtown
711 County Road 10 NE
Blaine, MN 55434

Lexington City Hall
9180 Lexington Avenue
Lexington, MN 55014

Circle Pines City Hall
200 Civic Heights
Circle Pines, MN 55014

Anoka County Library – Centennial
100 Civic Heights Circle
Circle Pines, MN 55014

Ramsey County

Arden Hills City Hall
1245 West Highway 96
Arden Hills, MN 55112

Mounds View City Hall
2401 County Road 10
Mounds View, MN 55112

Ramsey County Library – Mounds View
2576 County Road 10
Mounds View, MN 55112

Shoreview City Hall
4600 Victoria Street N
Shoreview, MN 55126

Ramsey County Library – Shoreview
4570 North Victoria Street
Shoreview, MN 55126

Anoka County

Lino Lakes City Hall
600 Town Center Parkway
Lino Lakes, MN 55014

7.2.2 Project Contacts

For additional information about this project, please contact:

Contacts

FHWA:	Ryan Hixson Area Engineer Galtier Plaza 380 Jackson Street, Suite 500 St. Paul, MN 55101 Phone: 651-291-6125	MnDOT:	Jerome Adams, P.E. Project Manager MnDOT Metro District 1500 West County Road B2 Roseville, MN 55113 Phone: 651-234-7611
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7.3 Process Beyond the Public Hearing

Following the comment period, MnDOT and the FHWA will make a determination as to the adequacy of the environmental documentation. If further documentation is necessary it could be accomplished by preparing an Environmental Impact Statement (EIS), by revising the Environmental Assessment (EA), or clarification in the Findings of Fact and Conclusion (FOF&C), whichever is appropriate.

When the environmental documentation is determined adequate, MnDOT will choose a project alternative, either the No Build or one of the alternatives under consideration.

If an EIS is not necessary, as currently anticipated, MnDOT will prepare a "Negative Declaration" for the state environmental requirements. MnDOT will also prepare a request for a "Finding of No Significant Impact" (FONSI)

that will be submitted to the FHWA. If the FHWA agrees that this finding is appropriate, it will issue a FONSI.

Notices of the federal and state decisions and availability of the above documents will be placed in the Federal Register and the Minnesota Environmental Quality Board (MEQB) *Monitor*. MnDOT will also distribute the Negative Declaration and FONSI to the EAW distribution list.