

FINDINGS OF FACT

and

CONCLUSIONS

TH 10 Auxiliary Lane Addition

State Project No. 6205-39

**Prepared by:
Minnesota Department of Transportation**



January, 2018

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FINDINGS OF FACT AND CONCLUSIONS

TH 10 Auxiliary Lane Addition

Located in:

Cities: Arden Hills and Mounds View

County: Ramsey

1.0 STATEMENT OF ISSUE

The project includes construction of an auxiliary lane beginning at the southbound I-35W exit to eastbound TH 10, extending eastbound to the County Road 96 exit. The project also includes an acceleration lane for Sherer Brothers Lumber, a water quality pond and two noise barriers. Preparation of an Environmental Assessment Worksheet (EAW) is required for this project under Minnesota Rules 4410.4300, Subpart 22.A, for construction of a road on a new location over one mile in length. MnDOT is the project proposer and Responsible Governmental Unit (RGU) for review of this project, as per Minnesota Rules 4410.4300, Subpart 22.A.

MnDOT's decision in this matter shall be either a negative or a positive declaration of the need for an environmental impact statement. MnDOT must order an Environmental Impact Statement (EIS) for the project if it determines the project has the potential for significant environmental effects.

Based upon the information in the record, which comprises the Environmental Assessment Worksheet (EAW) for the proposed project, related studies referenced in the EAW, written comments received, and other supporting documents included in this Findings of Fact and Conclusions document, MnDOT makes the following Findings of Fact and Conclusions:

2.0 ADMINISTRATIVE BACKGROUND

- 2.1 The Minnesota Department of Transportation (MnDOT) is the Proposer and Responsible Governmental Unit for state environmental review of this project. An Environmental Assessment Worksheet (EAW) has been prepared for this project in accordance with Minnesota Rules Chapter 4410 . The EAW was developed to assess the impacts of the project and other circumstances in order to determine if an Environmental Impact Statement (EIS) is indicated.
- 2.2 The EAW was filed with the Minnesota Environmental Quality Board (EQB) and circulated for review and comments to the required EAW distribution list. A "Notice of Availability" was published in the EQB Monitor on October 23, 2017. A press release was distributed to local media outlets and an article was printed in the Lillie Suburban Newspaper, Roseville Bulletin the week of October 29, 2017. These notices provided a brief description of the

project and information on where copies of the EAW were available and invited the public to provide comments that would be used in determining the need for an EIS on the proposed project.

- 2.3 The EAW was made available for public review at five locations: Ramsey County Public Libraries (Mounds View and Shoreview locations), MnDOT Metro District Office (Roseville), MnDOT Library (St. Paul), and Environmental Conservation Library (Minneapolis). The document was also posted for review on the project website. Comments were received through November 29, 2017.
- 2.4 Two agency comment letters were received during the EAW comment period. All comments received during the EAW comment period were considered in determining the potential for significant environmental impacts. The comment letters are provided in Appendix A. No specific issue was commented on by either agency, therefore no responses were necessary.

3.0 FINDINGS OF FACT

3.1 Project Description

- 3.1.1 The proposed project is located in the Cities of Arden Hills and Mounds View, Minnesota, which are northern suburbs of the Twin Cities Metro Area. The project includes Trunk Highway (TH) 10, Interstate 35W (I-35W) and County Road 96. Figures 1 and 2 in Appendix B provide a location of the proposed project in the metropolitan area. In this area, I-35W is a 6-lane interstate with dedicated auxiliary exit lanes and southbound lanes have an Average Annual Daily Traffic (AADT) of 137,000. TH 10 is a 4-lane highway with flyovers across I35W, and an AADT of 52,000 east of I-35W. County Road 96 is a 4-lane roadway, which has a western terminus just west of I-35W, and has an AADT of 13,000 between I35W and TH 10, but increases to 18,500 east of TH 10.
- 3.1.2 The project proposes to construct a two-lane exit on eastbound TH 10 beginning at southbound I-35W onto eastbound TH 10 by adding a second exit lane left of the existing exit lane. An auxiliary lane will be constructed on eastbound U.S. 10 from the County Road 10 entrance ramp to the exit onto County Road 96, in Ramsey County, in the city of Arden Hills, Minnesota. The project includes constructing a water quality pond and noise barriers.

3.2 Additional Information Regarding Items Discussed in the EAW Since It Was Published

Since the EAW was published, the following information pertaining to the project has been added or updated:

- 3.2.1 The project proposed closing the right out onto TH 10 at Prior Avenue/Frontage Road in front of the Welsch's Big Ten Tavern and relocating the exit to County Road 96. However, due to statutory requirements explained below, the right out on TH 10 has since been replaced back into the proposed project. Frontage Road will be modified to become a one-way road from this access to County Road 96, see revised layout Figures B3-B5 in Appendix B.

Minn. Stat. § 160.08, subd. 5, states that “[i]n the case of any elimination of existing access, air, view, light, or other compensable property rights, the owner shall be compensated for the loss by purchase or condemnation.” The Minnesota Supreme Court, in *Hendrickson v. State*, further clarified the statute by stating when a project leaves a landowner without reasonably convenient and suitable access to the main thoroughfare in at least one direction, then the project eliminated the right of access and is entitled to compensation. It was not the intent of this project to eliminate a right of access to the Welches Big Ten Tavern, therefore this access will be maintained.

This access change also affects the length of the proposed noise barrier NB2 located from Prior Avenue to County Road 96. The length was shortened by approximately 155 feet. The original barrier was approximately 1,419 feet long, and the shortened version of the barrier is approximately 1,264 feet long. Figure B6 in Appendix B illustrates the change in the noise barrier.

- 3.2.2 The noise barrier modeling was re-evaluated for noise barrier NB2 due to the access change at Prior Avenue/Frontage Road and shortening the barrier. A noise barrier approximately 1,264 feet long wall was modeled within MnDOT right-of-way along TH 10 from Prior Avenue to CSAH 96. 1,055 feet of the noise barrier will be located between the proposed auxiliary lane and the Frontage Road/slip ramp. This section of the noise barrier will require a guardrail. The noise barrier was modeled at a height of 20 feet, with tapered ends. This wall predicts noise level reductions ranging from 0.4 to 10.4 decibels and would cost \$517,135 at a cost of \$20 per sq. ft., including 1,055 linear feet of guardrail at \$25 per ft. The guardrail is only along the south side of TH 10 east of the entrance to the restaurant, and does not include the 209 feet of noise barrier west of the entrance. The cost per benefited receptor was \$25,857 which is below MnDOT’s cost effectiveness threshold of \$43,500 per benefited receptor. Since this barrier did not exceed this threshold and attained the 7-dBA reduction design goal, noise barrier NB2 is still proposed.

Under the original version of the barrier, 25 receptors were receiving at least 5 dBA of noise reduction from the proposed barrier (i.e., benefitted receptors). Under the shortened version of the barrier, 20 receptors are receiving at least 5 dBA of noise reduction from the barrier. The resulting benefitted receptor calculations are provided in the following Table 1.

Table 1: Noise Mitigation Cost Effectiveness Results (Daytime) – NB2

20 Foot Barrier									
NB2 (Eastbound TH 10 from Prior Avenue to CSAH 96 (Arden Manor residential area) Figure 2, Appendix A)									
Receptors	Build 2040 (No Barrier)	Build 2040 (20 ft Barrier)	Reduction (in dBA) with 20 ft noise barrier	Number of residences	Number of benefitted receptors	Length of barrier (feet)	Barrier Area (SF) ⁽¹⁾	Total cost of barrier \$20/sq ft ⁽²⁾	Cost / benefitted receptor
N12	<u>75.8</u>	75.7	0.1	1	0	1,264	24,538	\$517,135	\$25,857
N13	<u>71.6</u>	71.0	0.6	2	0				
N14	<u>73.3</u>	71.3	2.0	1	0				
N15	<u>72.3</u>	64.7	7.6	2	2				
N16	<u>72.2</u>	63.2	9.0	3	3				

N17	<u>70.7</u>	62.0	8.7	2	2
N18	<u>74.9</u>	65.0	9.9	2	2
N19	<u>75.5</u>	65.8	9.7	1	1
N20	<u>75.3</u>	70.1	5.2	1	1
N21	<u>75.5</u>	75.2	0.3	2	0
N22	<u>69.7</u>	68.4	1.3	3	0
N23	68.2	67.2	1.0	2	0
N24	67.9	66.2	1.7	3	0
N25	68.5	64.1	4.4	1	0
N26	67.4	63.3	4.1	1	0
N27	67.7	62.2	5.5	3	3
N28	67.5	61.6	5.9	2	2
N29	68.0	62.2	5.8	3	3
N30	67.8	63.3	4.5	2	0
N31	67.7	64.4	3.3	2	0
N32	67.5	65.6	1.9	2	0
N33	68.2	67.2	1.0	2	0
N34	67.1	63.5	3.6	4	0
N35	67.3	66.2	1.1	3	0
N36	65.9	63.2	2.7	2	0
N37	66.1	62.6	3.5	2	0
N38	66.4	61.4	5.0	1	1
N39	65.8	64.3	1.5	2	0
N40	65.6	64.3	1.3	1	0
N41	66.2	64.7	1.5	1	0
N42	64.7	61.6	3.1	2	0
N43	65.0	61.3	3.7	1	0
N44	65.0	61.2	3.8	1	0
N45	64.3	61.0	3.3	1	0
N46	65.2	61.9	3.3	3	0
N47	65.2	62.9	2.3	3	0
N48	64.2	62.7	1.5	1	0
N49	64.2	62.9	1.3	2	0
N50	64.2	63.0	1.2	2	0
N51	64.3	63.2	1.1	1	0
N52	63.0	62.4	0.6	2	0

- (1) Barrier area incorporates wall tapers at both ends
- (2) Cost includes the addition of 1,055 ft. of guardrail at a cost of \$25 per ft.

3.3 Findings Regarding Criteria for Determining the Potential for Significant Environmental Effects

Minnesota Rules 4410.1700 provides that an environmental impact statement shall be ordered for projects that have the potential for significant environmental effects. In deciding whether a project has the potential for significant environmental effects, the following four factors described in Minnesota Rules 4410.1700, Subp.7 shall be considered:

- A. type, extent, and reversibility of environmental effects;
- B. cumulative potential effects. The RGU shall consider the following factors: whether the cumulative potential effect is significant; whether the contribution from the project is significant when viewed in connection with other contributions to the cumulative potential effect; the degree to which the project complies with approved mitigation measures specifically designed to address the cumulative potential effect; and the efforts of the proposer to minimize the contributions from the project;
- C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority. The RGU may rely only on mitigation measures that are specific and that can be reasonably expected to effectively mitigate the identified environmental impacts of the project; and
- D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

MnDOT’s key findings with respect to each of these criteria are set forth below:

3.3.1 Type, Extent, and Reversibility of Impacts

MnDOT finds that the analysis completed during the EAW process is adequate to determine whether the project has the potential for significant environmental effects. The EAW describes the type and extent of impacts anticipated to result from the proposed project. In addition to the information in the EAW, the additional information described in Section 3.2 of this Findings of Fact and Conclusions document as well as the public/agency comments received during the public comment period (see Appendix A) were taken into account in considering the type, extent and reversibility of project impacts. Following are the key findings regarding potential environmental impacts of the proposed project and the design features included to avoid, minimize, and mitigate these impacts:

- 3.3.1.1 Noise: EAW Item 17 - Odors, noise and dust, discussed traffic noise impacts and proposed locations for noise barriers to mitigate traffic noise. Two noise barriers were determined to be feasible based on preliminary design studies, meeting MnDOT’s design reduction goal of at least 7 dBA at one benefited receptor behind each noise barrier; and meeting MnDOT’s cost-effectiveness criteria of \$43,500/benefited receptor. Noise barrier cost-effectiveness results are described in the traffic noise analysis report in the EAW, Appendix E.

Voting ballots were mailed on October 12, 2017 to benefited property owners and residents adjacent to the two proposed noise barriers. A total of 34 voting ballots and informational brochures were mailed to benefited property owners, residents, owners/residents. A neighborhood meeting for the benefited receptors was held during the comment period on November 8, 2017 at the Arden Manor Recreation Center (4605 Prior Avenue, Arden Hills). During the initial 30-day voting period, a 50% response rate

was not achieved; therefore, ballots were resent to eligible voters who had not responded on November 29, 2017. The second 30-day voting period ended on December 29, 2017.

The results of the voting process concluded with Barrier NB1 and NB2 both being voted to be part of the project. It is necessary to shorten NB2 due to the access remaining open at Prior Avenue. Barrier NB1 will remain as originally proposed in the EAW. The voting results are as follows:

Barrier NB1: A total of 7 benefited receptors were identified adjacent to Barrier NB1 during the voting process. The total number of possible voting points for Barrier NB1 is 33. Solicitation forms were received from 7 of the 8 owners/residents at benefited receptors. A total of 29 voting points were in favor of the proposed noise barrier. A total of 2 voting points were against construction of the noise barrier.

A majority (88%) of voting points for benefited properties adjacent to Barrier NB1 indicated a preference of “Yes” to construction of a noise barrier along the east side of TH 10 from Prior Avenue to Bayan Street. NB1 is proposed for construction.

Barrier NB2: A total of 25 benefited receptors were identified adjacent to Barrier NB2 during the voting process. The total number of possible voting points for Barrier NB2 is 75. Solicitation forms were received from 17 of the 26 owners/residents at benefited receptors. A total of 50 voting points were in favor of the proposed noise barrier. A total of 16 voting points were against construction of the noise barrier.

A majority (67%) of voting points for benefited properties adjacent to Barrier NB2 indicated a preference of “Yes” to construction of a noise barrier along the east side of TH 10 from Prior Avenue to County Road 96. NB2 is proposed for construction.

As discussed previously, barrier NB2 will need to be shortened by approximately 155 feet in order to accommodate the right out access at Prior Avenue. This change was made after the voting process occurred. Under the original version of the barrier, 25 receptors were receiving at least 5 dBA of noise reduction from the proposed barrier (i.e., benefitted receptors). Under the shortened version of the barrier, 20 receptors are receiving at least 5 dBA of noise reduction from the barrier. In order to provide all opportunities for public involvement, the votes of the original 25 benefitted receptors are all still being counted. MnDOT will send a mailing to all of these benefitted receptors to notify them about the shortened length of barrier NB2 and an explanation of the reasoning for this change.

A summary of each proposed barrier can be found below:

- Barrier NB1 is located along eastbound TH 10 between Bayan Street and Prior Avenue. Barrier NB1 has a preliminary cost of \$209,145. There are a total of 7 benefited receptors, and the wall is proposed at 20 feet high with a length of 529 feet.
- Barrier NB2 is located along eastbound TH 10 between Prior Avenue and CSAH 96, with a gap for the proposed slip ramp to CSAH 96. Barrier NB2 has a preliminary cost of \$517,135. There are a total of 20 benefited receptors, and the wall is proposed at 20 feet high with a length of 1,264 feet.

3.3.1.2 Stormwater: The project will add 0.45 acres of impervious surface. Stormwater runoff will be maintained to the existing quantity and quality. This will be done by creating a pond in the southeast quadrant of TH 10 and I-35W and ditch treatment areas along the project. MnDOT will store and treat runoff with filtration/infiltration ponds and swales. These ponds and swales will be designed using guidance from the Minnesota Stormwater Manual.

3.3.1.3 Wetlands: The proposed project widening of TH 10 will have approximately 0.04 acres of impact into a wetland basin which has not changed since the EAW. This impact is under the jurisdiction of the Wetland Conservation Act (WCA). The WCA replacement ratio is 2.0 for within-BSA replacement and 2.5 for out-of-BSA replacement. MnDOT proposes using shallow marsh wetland bank credits to offset the loss of the 0.04 acre of wetland basin.

3.3.1.4 Summary finding with respect to these criteria: MnDOT finds that the project, as it is proposed, does not have the potential for significant environmental effects based on the type, extent, and reversibility of impacts to the resources evaluated in the EAW and in the Findings summary above. Project impacts will be mitigated as described in the EAW and in the Findings above.

3.3.2 Cumulative Potential Effects of Related or Reasonably Foreseeable Future Projects

EAW Item 19 identified the Twin Cities Army Ammunition Plant (TCAAP) Site as planned for redevelopment by Ramsey County and the city of Arden Hills. The County has presently and/or recently completed constructing the Spine Road, Thumb Road and TH 10 westbound two lane exit to I-35W. In addition, MnDOT has future plans for a MnPASS lane in I-35W adjacent to the project area.

In consideration of these reasonably foreseeable future projects, no potentially significant cumulative effects from the proposed project and other reasonably foreseeable future actions were identified. This project is not believed to cause any anticipated adverse environmental impacts that have not been addressed. Future projects, including TCAPP and I-35W MnPASS, will be required to meet all applicable regulations and permits.

3.3.3 Extent to Which the Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority

3.3.3.1 The mitigation of environmental impacts will be designed and implemented in coordination with regulatory agencies (including the coordination and approvals described in Section 3.3.1 above) and will be subject to the plan approval and permitting processes. Permits and approvals that have been obtained or may be required prior to project construction include those listed in **Table 2**.

3.3.3.2 The permits listed in **Table 2** include general and specific requirements for mitigation of environmental effects of the project. Therefore, MnDOT finds that the environmental effects of the project are subject to mitigation by ongoing regulatory authority.

Table 2– Agency Approvals and Permits

Unit of government	Type of application	Current Status		
		Completed	Requested	To be Completed
Federal				
FHWA	Categorical Exclusion determination			X
MnDOT CRU on behalf of FHWA	Section 106 (Historic / Archeological) determination [X		
MnDOT OES on behalf of FHWA	Endangered Species Act Section 7 determination	X		
COE	Section 404			X
State				
MnDOT	Categorical Exclusion document			X
Mn Pollution Control Agency	NPDES - SWPP			X
DNR	General Construction Permit			X
Wetland Conservation Act	WCA Permit			X
Local				
Rice Creek Watershed District	Permit Approval			X
Municipal Approval	City of Arden Hills			X

3.3.4 Extent to Which Environmental Effects can be Anticipated and Controlled as a Result of Other Environmental Studies

3.3.4.1 MnDOT has extensive experience in roadway construction. Many similar projects have been designed and constructed throughout the area. Design and construction staff is familiar with the project area.

3.3.4.2 No problems are anticipated which MnDOT staff have not encountered and successfully solved many times on similar projects in or near the project area. MnDOT finds that the environmental effects of the project can be anticipated and controlled as a result of the assessment of potential issues during the environmental review process and MnDOT’s experience in addressing similar issues on previous projects.

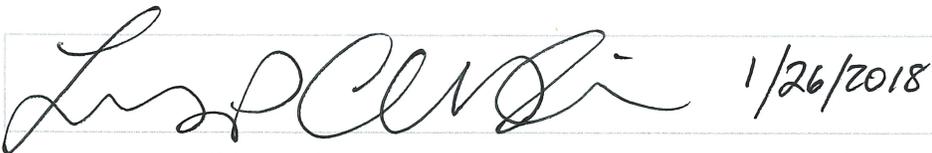
4.0 CONCLUSIONS

1. The Minnesota Department of Transportation has jurisdiction in determining the need for an environmental impact statement on this project.
2. All requirements for environmental review of the proposed project have been met.
3. The EAW and the permit development processes to date related to the project have generated information which is adequate to determine whether the project has the potential for significant environmental effects.
4. Areas where potential environmental effects have been identified will be addressed during final design of the project. Mitigation will be provided where impacts are expected to result from project construction, operation, or maintenance. Mitigative measures will be incorporated into project design, and have been or will be coordinated with local, state and federal agencies during the permit processes.
5. Based on the criteria in Minnesota Rules part 4410.1700, subp. 7, the project does not have the potential for significant environmental effects.
6. An Environmental Impact Statement is not required for the TH 10 Auxiliary Lane Improvement Project.
7. Any findings that might properly be termed conclusions and any conclusions that might properly be called findings are hereby adopted as such.

Based on the Findings of Fact and Conclusions contained herein and on the entire record:

8. The Minnesota Department of Transportation hereby determines that the TH 10 Auxiliary Lane Improvement Project will not result in significant environmental impacts, and that the project does not require the preparation of an environmental impact statement.

For Minnesota Department of Transportation

A rectangular box containing a handwritten signature in cursive script and the date "1/26/2018" written in a similar style to the right of the signature.

Lynn P Clarkowski, PE
MnDOT Chief Environmental Officer

APPENDIX A

AGENCY COMMENTS

Letter 1: Metropolitan Council

Letter 2: Minnesota Pollution Control



520 Lafayette Road North | St. Paul, Minnesota 55155-4194 | 651-296-6300

800-657-3864 | Use your preferred relay service | info.pca@state.mn.us | Equal Opportunity Employer

November 20, 2017

Rick Dalton, Environmental Coordinator
Minnesota Department of Transportation
Metro District
1500 County Road B2
Roseville, MN 55113

Re: SP: 6205-39 Trunk Highway 10 Auxiliary Lane Addition Environmental Assessment Worksheet

Dear Rick Dalton:

Thank you for the opportunity to review and comment on the Environmental Assessment Worksheet (EAW) for the Trunk Highway 10 Auxiliary Lane Addition project (Project) in Ramsey County, Minnesota. The Project consists of the addition of an auxiliary lane on Trunk Highway 10 extending from the southbound I-35W exit to the County Road 96 exit. Minnesota Pollution Control Agency (MPCA) staff has reviewed the EAW and have no comments at this time.

We appreciate the opportunity to review this project. Please provide the notice of decision on the need for an Environmental Impact Statement. Please be aware that this letter does not constitute approval by the MPCA of any or all elements of the Project for the purpose of pending or future permit action(s) by the MPCA. Ultimately, it is the responsibility of the Project proposer to secure any required permits and to comply with any requisite permit conditions. If you have any questions concerning our review of this EAW, please contact me by email at Karen.kromar@state.mn.us or by telephone at 651-757-2508.

Sincerely,

A handwritten signature in black ink that reads 'Karen Kromar'.

Karen Kromar
Planner Principal
Environmental Review Unit
Resource Management and Assistance Division

KK:bt

cc: Dan Card, MPCA, St. Paul
Teresa McDill, MPCA, St. Paul

November 22, 2017

Mr. Rick Dalton
Minnesota Department of Transportation
1500 County Rd B2
Roseville, MN 55113

RE: TH 10 Auxiliary Lane Addition Environmental Assessment Worksheet
Metropolitan Council Review File 21812-1
Metropolitan Council District 10

Dear Mr. Dalton:

The Metropolitan Council received the Environmental Assessment Worksheet (EAW) for the TH 10 auxiliary lane project on October 23, 2017. The proposed project located in Arden Hills and Mounds View will add an auxiliary lane beginning at the southbound I-25 W exit to eastbound TH 10, extending eastbound to the County Road 96 exit. The project also includes an acceleration lane for Sherer Brothers Lumber, modifying access at Prior Avenue/Frontage Road, a water quality pond and possible noise barriers.

Council staff has conducted a review of this EAW to determine its adequacy and accuracy in addressing regional concerns and the potential for significant environmental impact. Staff have concluded that the EAW is adequate and accurate with respect to regional concerns, and that there is not a regional need for an Environmental Impact Statement. We do not have any additional comments to share.

This concludes the Council's review of the EAW. The Council will not take formal action on the EAW. If you have any questions or need further information, please contact Russ Owen, Principal Reviewer, at 651-602-1724.

Sincerely,



LisaBeth Barajas, Manager
Local Planning Assistance

CC: Tod Sherman, Development Reviews Coordinator, MnDOT - Metro Division
Marie McCarthy, Metropolitan District 10
Eric Wojchik, Sector Representative
Russ Owen, Principal Reviewer, Metropolitan Council
Raya Esmaeili, Reviews Coordinator

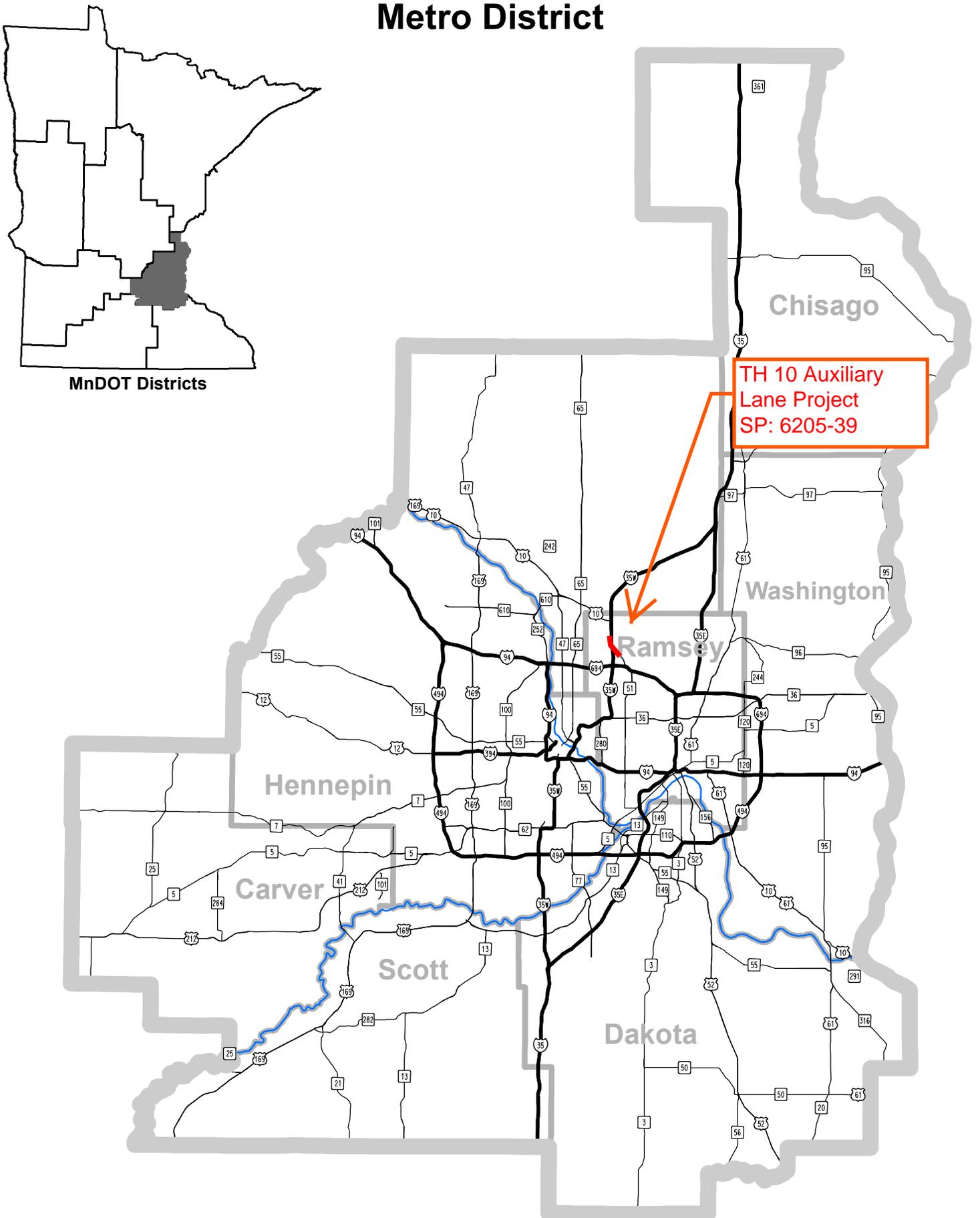
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APPENDIX B

PROJECT LOCATION AND LAYOUT

- Figure B1 County Map – General Location
- Figure B2 U.S. Geological Survey 7.5 minute, 1:24,000 scale map
- Figure B3: Project Layout Sheet 1
- Figure B4: Project Layout Sheet 2
- Figure B5: Project Layout Sheet 3
- Figure B6: Noise Barrier NB2

Minnesota Department of Transportation Metro District

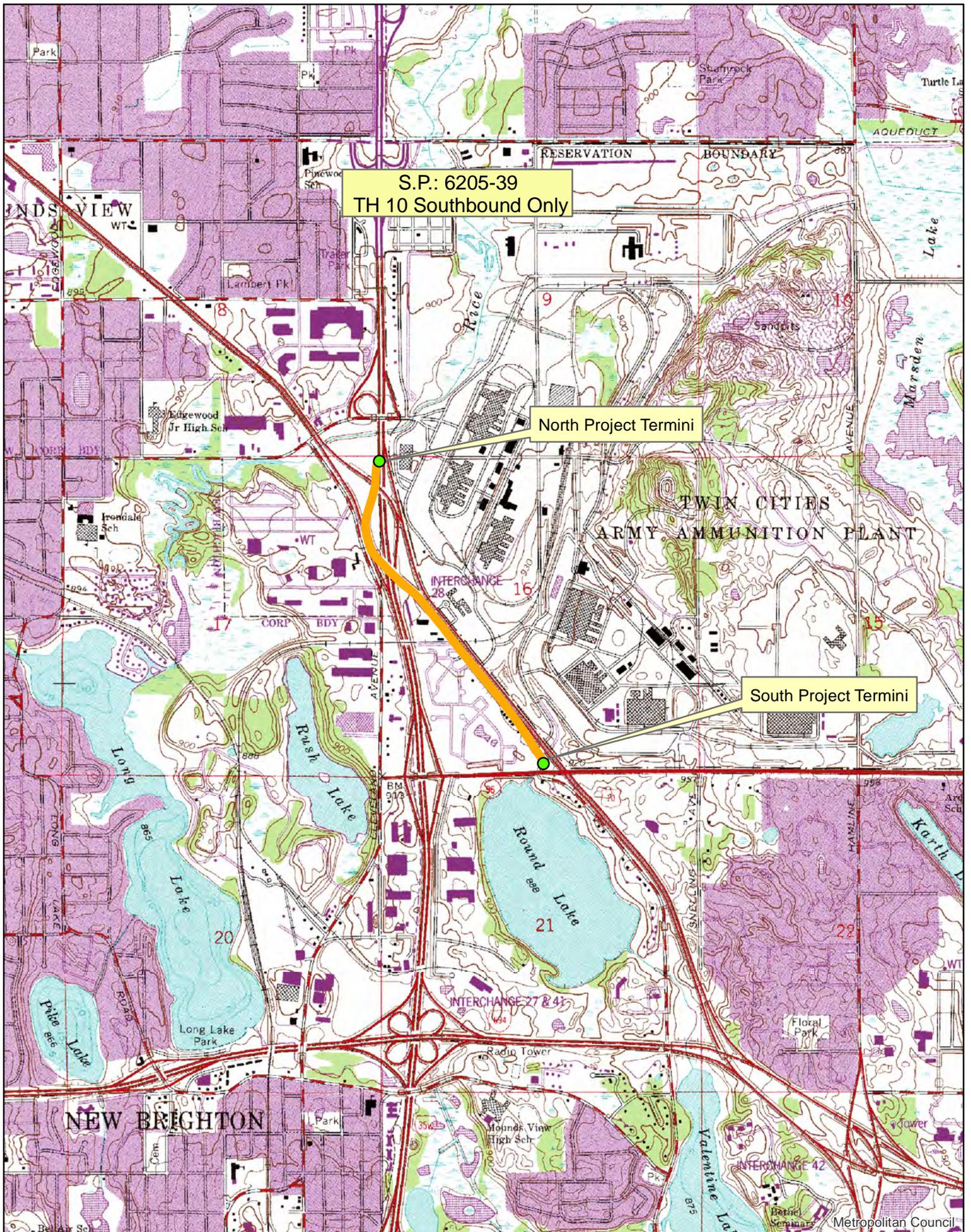


MnDOT Districts

TH 10 Auxiliary Lane Project
SP: 6205-39

County Map - General Project Location

Figure A1

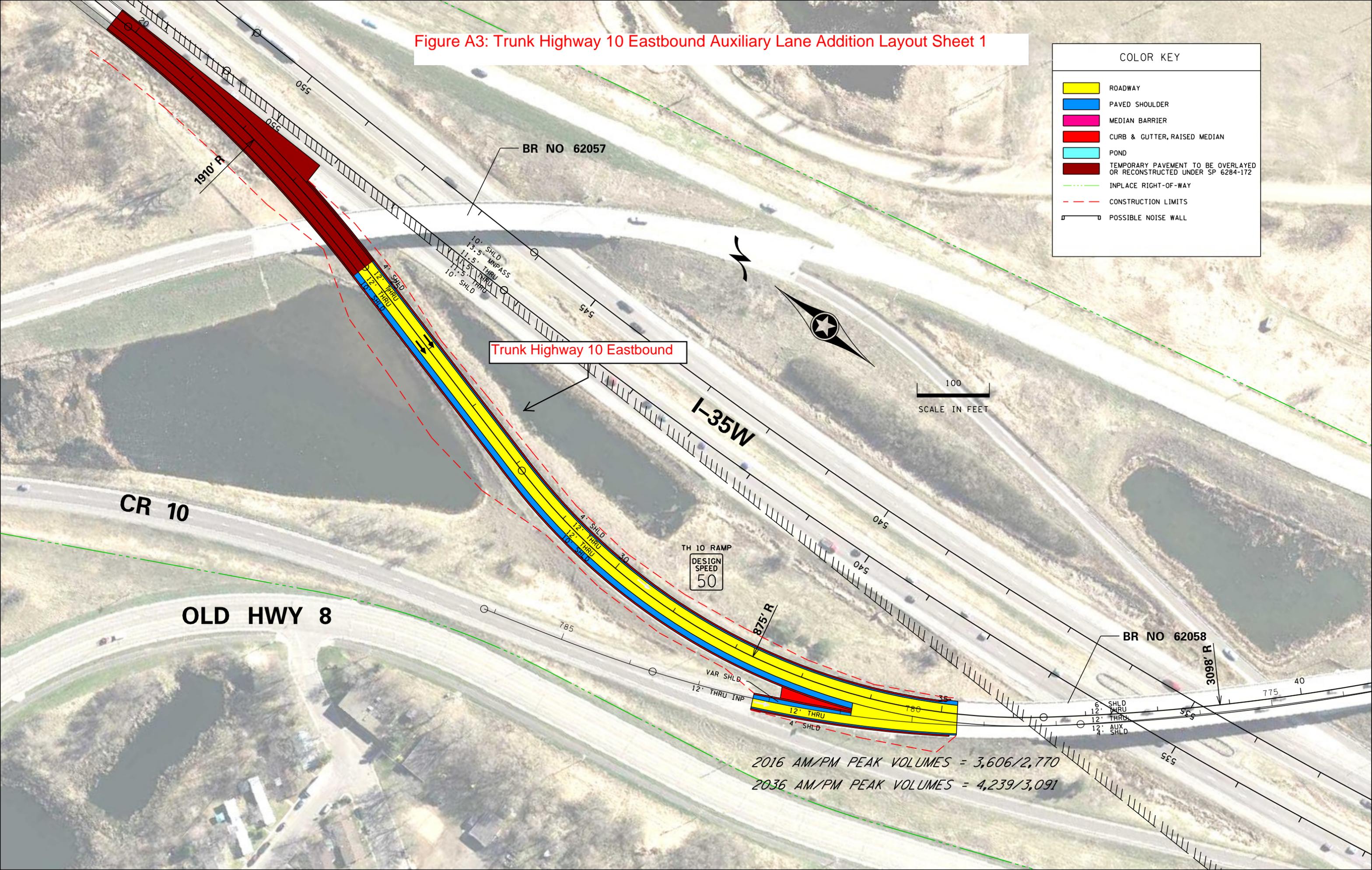


U.S. Geological Survey 7.5 minute, 1:24,000 scale map

Figure: A2

Figure A3: Trunk Highway 10 Eastbound Auxiliary Lane Addition Layout Sheet 1

COLOR KEY	
	ROADWAY
	PAVED SHOULDER
	MEDIAN BARRIER
	CURB & GUTTER, RAISED MEDIAN
	POND
	TEMPORARY PAVEMENT TO BE OVERLAYED OR RECONSTRUCTED UNDER SP 6284-172
	INPLACE RIGHT-OF-WAY
	CONSTRUCTION LIMITS
	POSSIBLE NOISE WALL



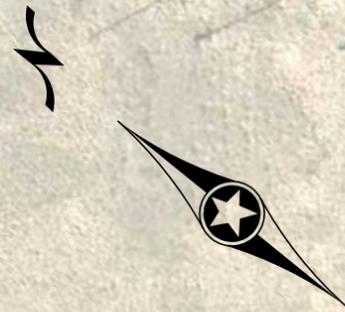
Trunk Highway 10 Eastbound

TH 10 RAMP
DESIGN SPEED
50

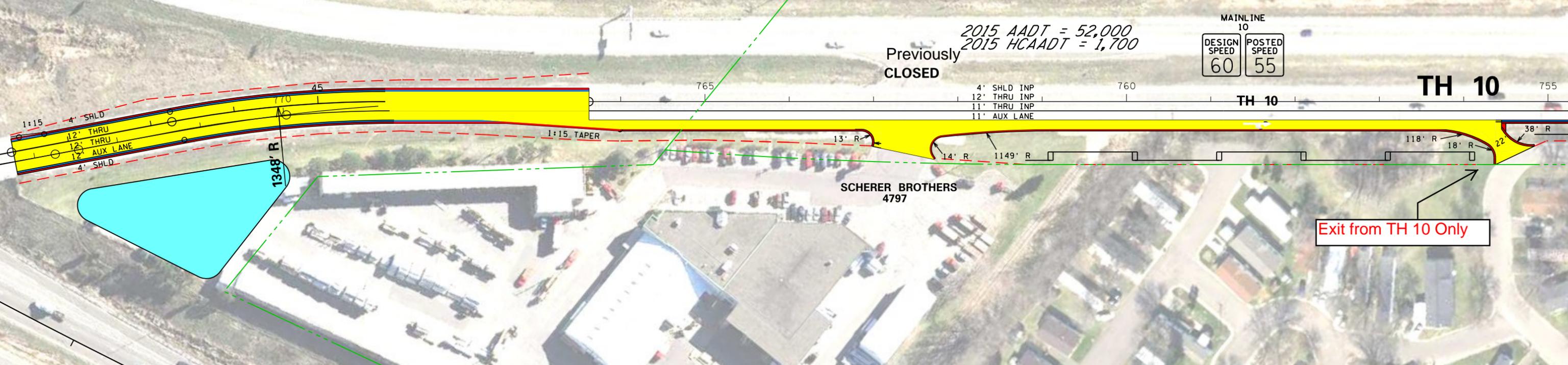
2016 AM/PM PEAK VOLUMES = 3,606/2,770
2036 AM/PM PEAK VOLUMES = 4,239/3,091

Figure A4: Trunk Highway 10 Eastbound Auxiliary Lane Addition Layout Sheet 2

COLOR KEY	
	ROADWAY
	PAVED SHOULDER
	MEDIAN BARRIER
	CURB & GUTTER, RAISED MEDIAN
	POND
	TEMPORARY PAVEMENT TO BE OVERLAYED OR RECONSTRUCTED UNDER SP 6284-172
	INPLACE RIGHT-OF-WAY
	CONSTRUCTION LIMITS
	POSSIBLE NOISE WALL



100
SCALE IN FEET



2015 AADT = 52,000
2015 HCAADT = 1,700

MAINLINE 10
DESIGN SPEED 60
POSTED SPEED 55

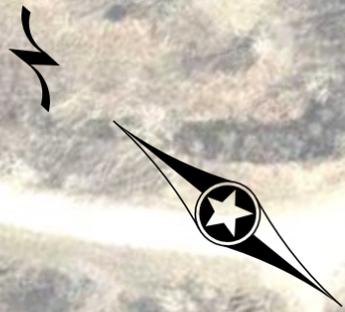
TH 10

SCHERER BROTHERS
4797

Exit from TH 10 Only

Figure A5: Trunk Highway 10 Eastbound Auxiliary Lane Addition Layout Sheet 3

COLOR KEY	
	ROADWAY
	PAVED SHOULDER
	MEDIAN BARRIER
	CURB & GUTTER, RAISED MEDIAN
	POND
	TEMPORARY PAVEMENT TO BE OVERLAYED OR RECONSTRUCTED UNDER SP 6284-172
	INPLACE RIGHT-OF-WAY
	CONSTRUCTION LIMITS
	POSSIBLE NOISE WALL



100
SCALE IN FEET

Previously Closed

750 4' SHLD INP
12' THRU INP
11' THRU INP
11' AUX LANE

MAINLINE
10
DESIGN SPEED
60
POSTED SPEED
55

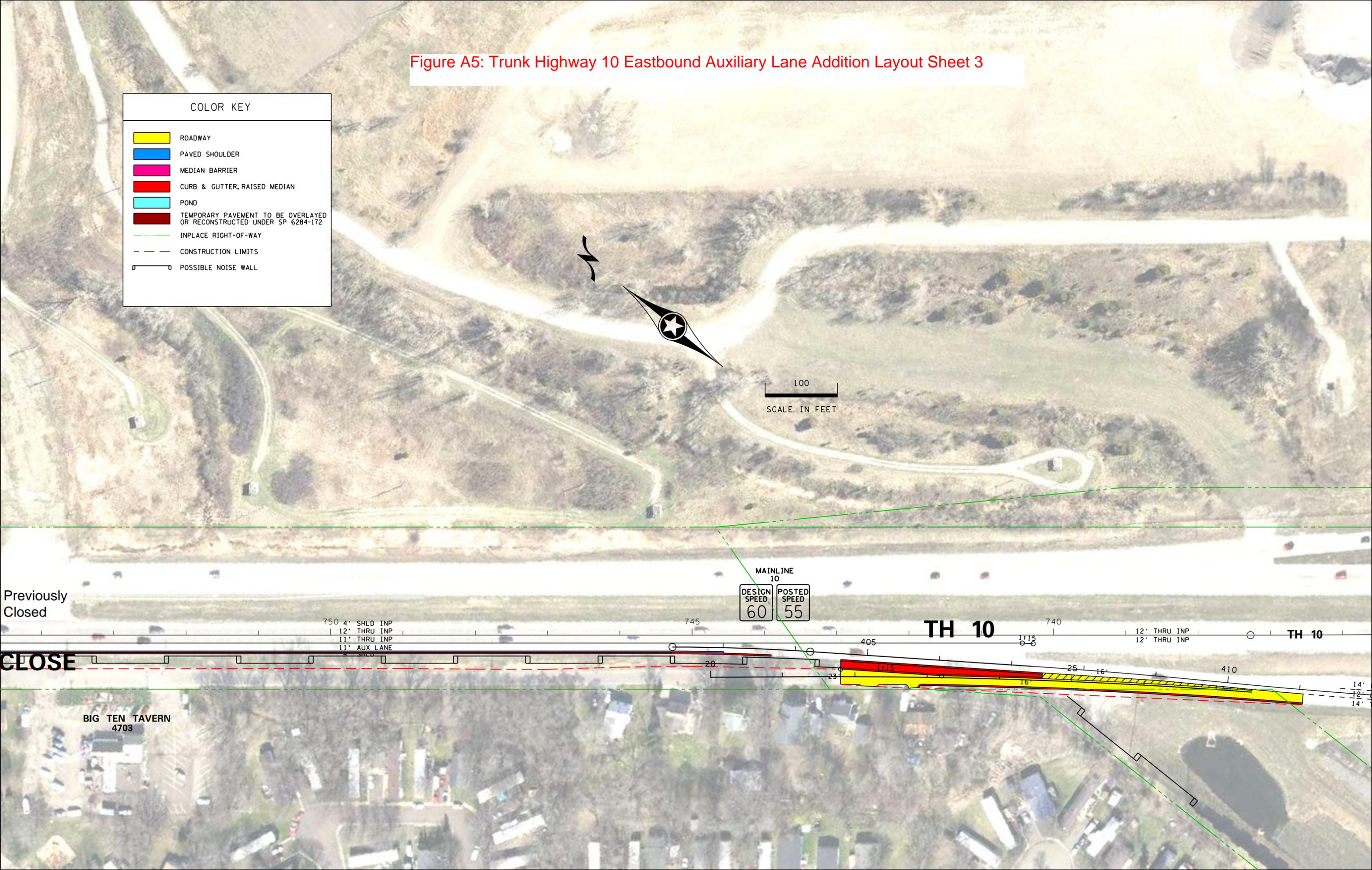
TH 10

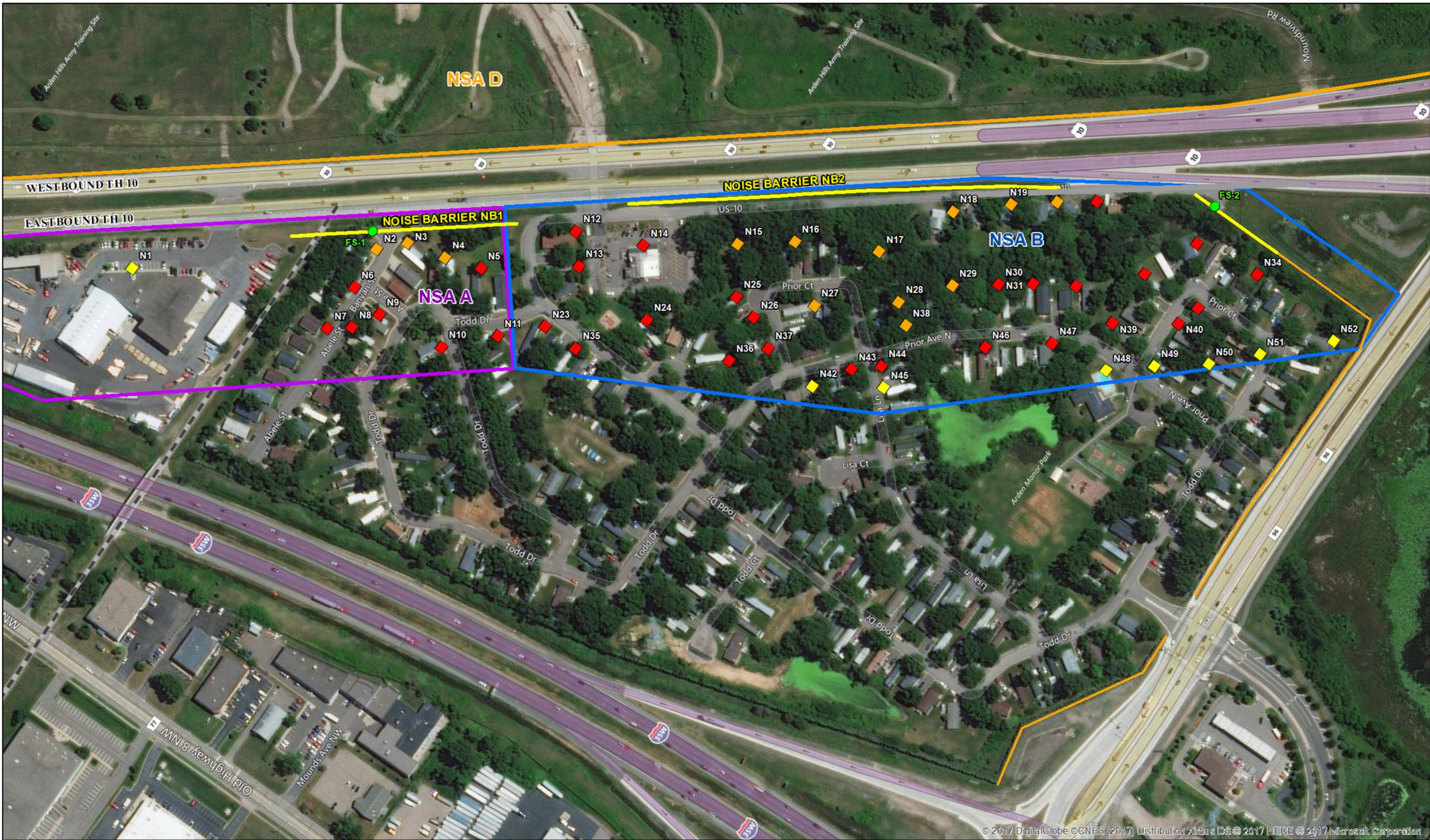
12' THRU INP
12' THRU INP

TH 10

CLOSE

BIG TEN TAVERN
4703

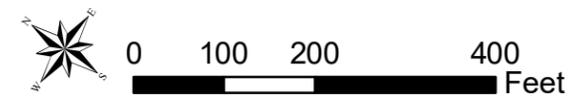




- BELOW MINNESOTA STANDARDS/NOT BENEFITTED
- ABOVE MINNESOTA STANDARDS/BENEFITTED
- ABOVE MINNESOTA STANDARDS/NOT BENEFITTED

- NOISE MONITORING SITES
- PROPOSED NOISE BARRIER
- ANALYZED NOISE BARRIER - NOT PROPOSED
- EXISTING NOISE BARRIER

- NOISE STUDY AREA A
- NOISE STUDY AREA B
- NOISE STUDY AREA C
- NOISE STUDY AREA D



Traffic Noise Analysis for TH 10
Arden Hills, Minnesota
FIGURE B6

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