



SAINT
LOUIS
COUNTY
MINNESOTA

Public Engagement Summary

St. Louis County CSAH 100
3rd Avenue North/Main Street

Aurora, MN

CSAH 100 Public Engagement Summary

Project Overview

In 2024, St. Louis County conducted a corridor study on County State Aid Highway (CSAH) 100 (3rd Avenue/Main Street) through Aurora to evaluate traffic flow, on-street parking demand, pedestrian/bike facilities, intersection improvements, enhance downtown streetscape, and address an at-grade railroad crossing. The corridor study was necessary as the corridor was nearing the end of its service life and the city was planning to replace underground utilities.



As part of the study, a robust public engagement strategy was utilized to gain input on all phases of the project. Input from partnering agencies, local businesses/organization, residents and corridor users was utilized to develop preliminary corridor concepts and identify priority areas. The following key project components were recommended by the study.

FIGURE 1: CSAH 100 STUDY AREA

- Construct a raised median on 3rd Avenue North between Erie Street and Hill Street. An opening in the median will be provided for the Embarrass Vermillion Federal Credit Union and Lakehead Constructors.
- Construct a 6 foot sidewalk along the south side of 3rd Avenue North between Erie Street and Hill Street.
- Install enhanced pedestrian crossings that utilize RRFs (pedestrian activated flashers) on CSAH 100, Hill Street, and 3rd Avenue South.
- Construct a mini-roundabout at the intersection of Main Street and 3rd Avenue North.
- Construct a bridge overpass at the railroad crossing. The bridge deck will include a 10-foot shared-use path on the west side of the deck, two 12-foot driving lanes and a protected 14-foot ATV/snowmobile lane. Include a box culvert under the south approach to the bridge to provide a grade separated underpass for the Mesabi Trail.

CSAH 100 Public Engagement Summary

- Construct a 10-foot shared-use path on the west side of Main Street between Highway 110 and the downtown zone.
- Widen the sidewalks on Main Street in the downtown zone from 10 feet to 15 feet. Parking lanes will be reduced from 17 feet to 12 feet.

Public Engagement Goals

- Involve stakeholders and the public early and often through the project to understand issues and review and refine alternatives.
- Communicate outcomes with stakeholders and public on how their input was utilized during project development.
- Create ample opportunities for public input, both in-person and virtually.
- Utilize public input to improve the value of the project.

Three phases of public engagement were developed to support the corridor study. This report is a summary of those efforts and the results.

Key Agency Stakeholders

- City of Aurora
- East Range Police Department
- Mesabi East School District (ISD 2711)
- Arrowhead Regional Development Commission (ARDC)
- Superior National Forest Scenic Byway coalition
- Ranger ATV and Snowmobile Club
- CN Railroad

Engagement Approach

Public and agency involvement was conducted through a multi-phase engagement process to reach communities and stakeholders that are likely to be affected by the project. Engagement activities include in-person public open houses (see Appendix D), agency and business meetings, and coordination with elected officials. Outreach methods included a project website with a virtual interactive map, online survey, postcards (see Appendix A), social media promotion (see Appendix B), flyers distributed to area businesses, presentations to community groups (see Appendix E, F, and G), and options for virtual meeting participation. All in person meetings were held in ADA compliant facilities, and online and virtual options allowed accessibility for people with disabilities and others unable to attend in person.

CSAH 100 Public Engagement Summary

Phase 1 Engagement

PURPOSE	Understand issues and needs along the corridor from the 3 stakeholder groups
TIMING	March – June 2024
TACTICS	In-person meetings opportunities (3/19/24) 1) Focus group meeting with Agencies 2) Focus group meeting with business owners and local organizations 3) Public meeting (see Appendix E) Website with virtual meeting, interactive map and survey (open March- June) Social Media promotion (see Appendix B) Fliers for area businesses Project Website

KEY ISSUES/CONCERNS IDENTIFIED DURING IN-PERSON MEETINGS

CONSTRUCTION COORDINATION & ACCESS

- Businesses want the ability to coordinate directly with the contractor to complete private improvements during corridor construction.
- Concerns about prolonged detours, particularly routing traffic onto Erie Street/Central Avenue for the entire construction period.

TRAFFIC OPERATIONS & FREIGHT MOVEMENT

- Existing roadway geometrics make 90-degree turns difficult for semi-trucks.
- Interest in alternative truck routes to reduce downtown truck traffic, though acknowledging trucks cannot be prohibited.
- Suggestions for new or reestablished railroad crossings (e.g., Lane 55, 2nd Street East bridge) to allow trucks to bypass downtown, though these are outside the project scope.

INTERSECTION DESIGN & ROUNDABOUTS

The County conducted a stop compliance study at the intersection of Main Street and 3rd Avenue North. The study found that approximately 53 to 62 percent of traffic are not stopping for the all-way stop control. It appears that many drivers would prefer not to stop. A mini-roundabout seems to provide better alignment with driver behavior

Limited or some support for a mini-roundabout once attendees understood it fits within existing right-of-way without major property impacts (see Appendix N).

Opposition to the roundabout included:

- 1) Will decrease safety.
- 2) Young drivers will attempt to jump the center island.
- 3) There is not enough traffic to justify a mini-roundabout.
- 4) The City of Aurora is too small to justify a mini-roundabout.
- 5) Crashes increase at roundabouts. They are not safe.
- 6) The current intersection operates just fine.

CSAH 100 Public Engagement Summary

- 7) The mini-roundabout will remove parking spaces in downtown.
 - 8) The mini-roundabout is a waste of money.
 - 9) The public does not want it, therefore there is not a need to construct it.
 - 10) The County will construct the roundabout just because they think it is a good idea.
- No formal opposition to the mini-roundabout, though some skepticism remains (see Appendix M), with preferences expressed for stop-controlled intersections and discussion around roundabout safety.

PEDESTRIAN & MULTI-MODAL SAFETY

- Strong emphasis on safety over aesthetics.
- Desire for more marked pedestrian crossings and enhanced school crossing treatments or signals on 3rd Avenue.
- Consultation with ARDC was able to incorporate a recently completed Safe Routes to School planning report for the Mesabi East School campus into the corridor recommendations.
- Requests to ensure ATV and snowmobile crossing accommodations are included.

DRAINAGE & INFRASTRUCTURE

- Drainage problems are a corridor-wide concern.
- Residents want options to connect roof drains directly to gutters or storm sewers to prevent water flowing across sidewalks.

STREETSCAPE DESIGN CONCERNS

- Objections to curb bump-outs due to abrupt tapers, proximity to travel lanes, and existing traffic constraints (railroad crossing, slow downtown speeds).
- Preference for softer traffic-calming approaches and reliance on other streetscape features rather than aggressive bump-outs.
- Opposition to certain landscaping treatments used in nearby cities, including red-colored concrete and planted/grassy areas due to maintenance concerns.
- Preference for darker or natural concrete colors, minimal landscaping, and keeping features out of the sidewalk zone; questions raised about tree root boxes.

OVERALL PRIORITIES

- Safety is the dominant concern, consistently prioritized over beautification or aesthetic enhancements.
- Desire for functional, maintainable designs that improve safety for vehicles, pedestrians, students, and recreational users without introducing new operational challenges.

PHASE 1 ONLINE INPUT

From March- June 2024, the project website had 921 total visits with 90 people providing input on either the interactive map or survey.

CSAH 100 Public Engagement Summary

KEY RESULTS INCLUDE:

- Safety, traffic flow, and business access were the top priorities important to people while walking/biking, corridor aesthetics and access to Mesabi East School campus were at the bottom.
- Vehicle speeds were a concern on several segments of the corridor including:
 - o MNTH 135 to Erie Street
 - o Erie Street to North 4th Street
 - o North 4th Street to North 1st Street
 - o North 1st Street through Downtown to Central Avenue East
 - o Central Ave East to 3rd Avenue South
- Three side street stop control intersections were identified as concerns:
 - o Central Avenue
 - o Forestry Road
 - o Erie Street
- The following factors were identified for the intersection of Main Street and 3rd Avenue North in downtown Aurora in order from most important to least important:
 - o Safety
 - o Minimizing traffic delay or unnecessary stops
 - o Movement of trucks and other large vehicles
 - o Movement of pedestrians and bicyclists
 - o Creating a “gateway” to downtown Aurora
 - o Access to businesses located on the corners
 - o Intersection aesthetics

OPEN ENDED COMMENT TAKEAWAYS:

People prioritize safety, functionality, truck mobility. Unnecessary design complexities are not needed with many people dissatisfied with improvements made in neighboring communities.

CSAH 100 Public Engagement Summary

Phase 2 Engagement Summary

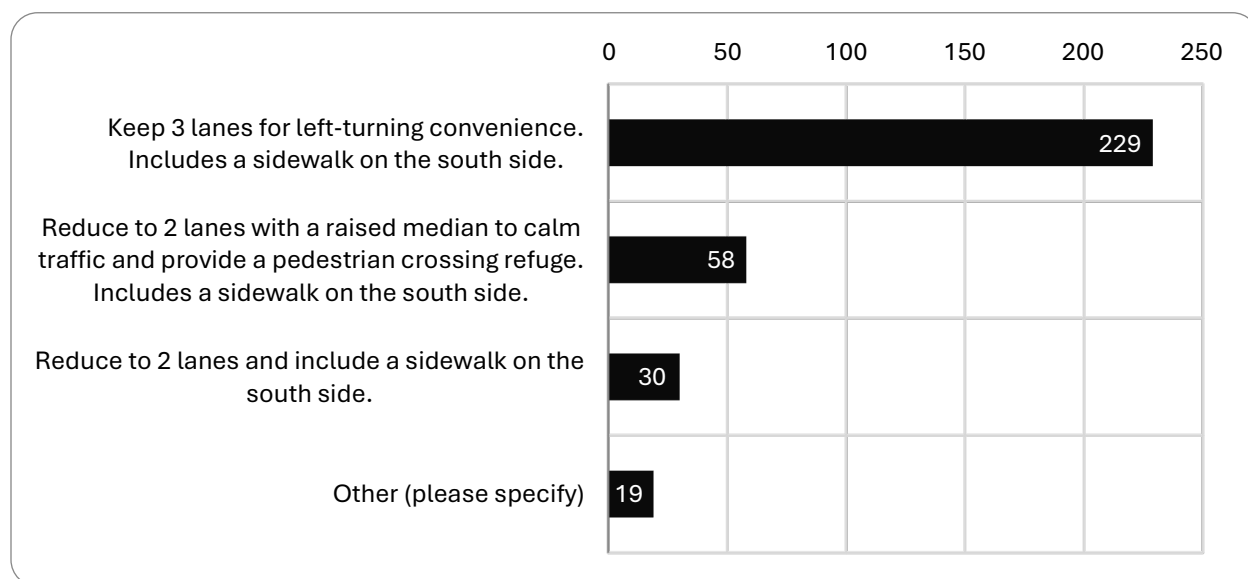
PURPOSE	Review the corridor options and alternatives and inform stakeholders/public how their input was utilized in the development of the design alternatives.
TIMING	Summer 2024
TACTICS	In-person meeting opportunities (7/9/24) 1) Focus group meeting with Agencies 2) Focus group meeting with business owners and local organizations 3) Public meeting (see Appendix F) Virtual survey (July 2024) Fliers for area businesses Social media Website updates Virtual meeting option

RESULTS

A range of alternatives were developed for different segments of CSAH 100. Alternatives were presented and discussed at in-person meetings with an online survey capturing feedback from stakeholders and the public on preferences.

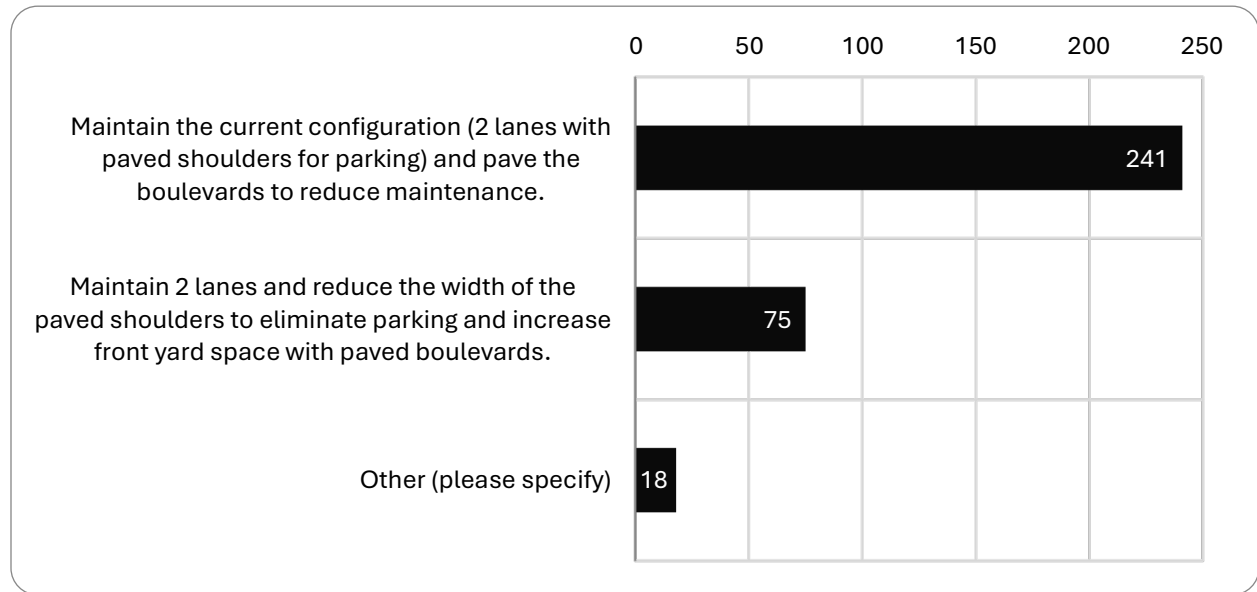
Approximately 336 responses were recorded from the survey. The results of the alternatives analysis portion of the survey are as follows:

1. The segment of 3rd Ave North between Erie Street and Hill Street currently has 3 lanes (includes a center two-way left-turn lane). Which alternative do you believe would best serve this roadway segment?

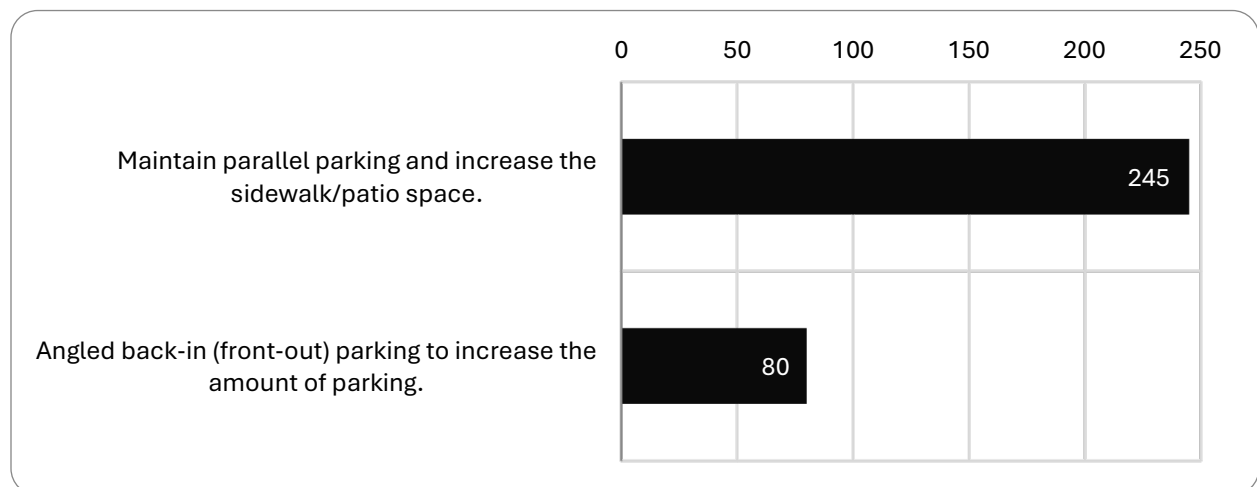


CSAH 100 Public Engagement Summary

2. The segment of 3rd Avenue North between Hill Street and Main Street currently has 2 lanes with paved shoulders for parking with grass boulevards and sidewalks on both sides. St. Louis County completed a parking study and found less than 25 percent of available parking is being used for most of 3rd Avenue North. Considering the tradeoff between parking utilization and more front yard space, which alternative do you believe would best serve this roadway segment?

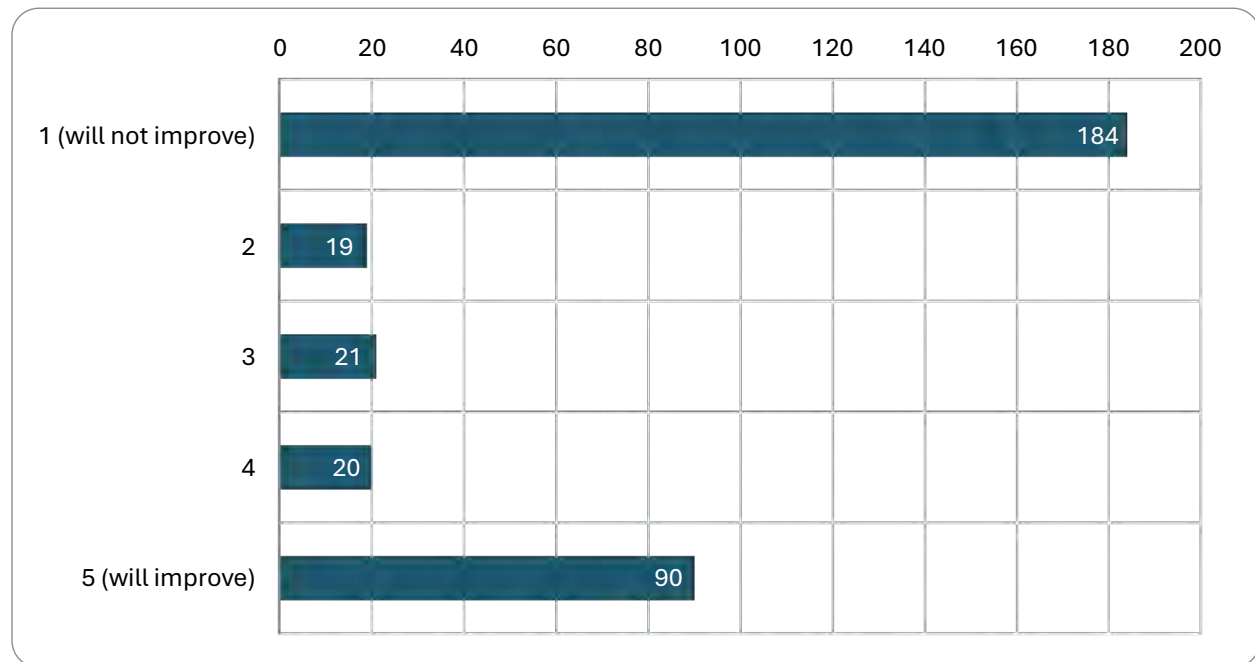


3. The downtown segment of Main Street (between 1st Avenue North and 3rd Avenue North) currently utilizes parallel parking. The project is considering the two parking alternatives of parallel parking and angled back-in (front-out) parking. Parallel parking would provide more sidewalk/patio space for the downtown businesses by reducing the existing parking lane width while providing the same amount of parking as is currently available. Angled back-in (front-out) parking would provide more parking than is currently available but would maintain the same available sidewalk/patio space that is currently available for downtown.

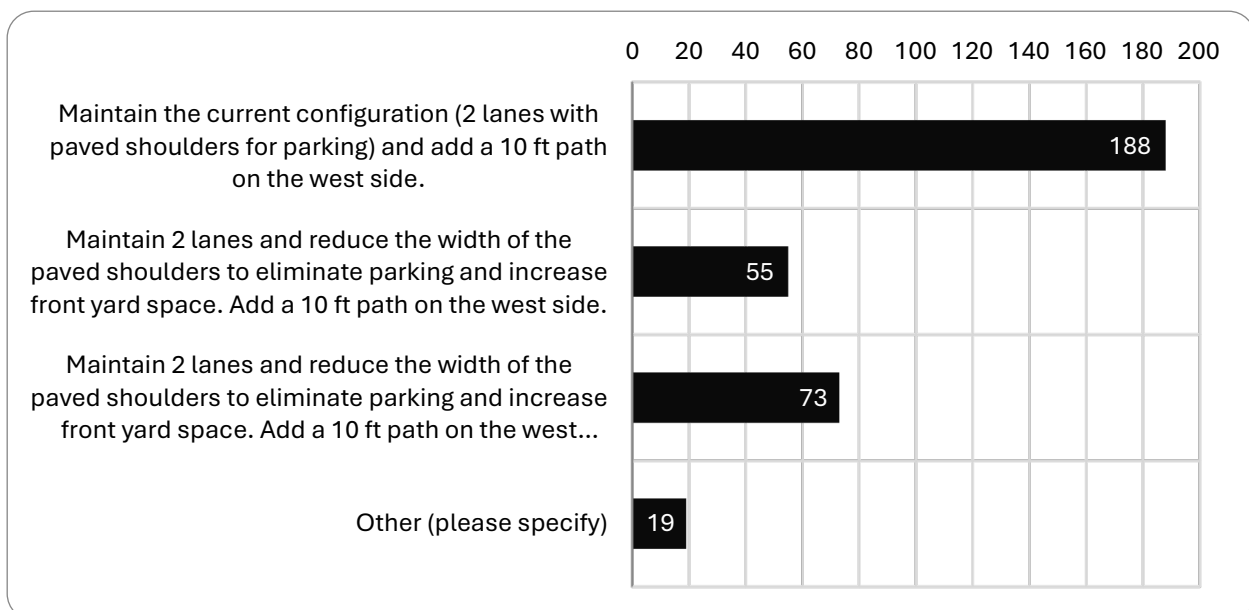


CSAH 100 Public Engagement Summary

4. The downtown intersection of Main Street and 3rd Avenue North is currently controlled by all-way stop control. The project is considering the two alternatives of maintaining all-way stop control and a mini roundabout. An engineering analysis of this intersection has found that a mini roundabout would decrease delay experienced by drivers, increase the traffic capacity of the intersection and provide better safety for pedestrians. A mini roundabout would fit within the existing roadway footprint and be able to be used by trucks and buses. Compared to your experience with the all-way stop control, do you believe a mini roundabout would improve this intersection? (1 equals will not improve this intersection and 5 equals will improve this intersection.)



5. The segment of Main Street between 3rd Avenue South and Hwy 110 currently has 2 lanes with paved shoulders for parking. Which alternative do you believe would best serve this roadway segment?



CSAH 100 Public Engagement Summary

Phase 3 Engagement Summary

PURPOSE	Summarize input collected from Phase 2. Understand the outcomes, final recommendations and next steps.
TIMING	November 2024
TACTICS	In-person meeting opportunities (11/21/24) 1) Focus group meeting with Agencies 2) Focus group meeting with business owners and local organizations 3) Public open house (see Appendix G) Social media Fliers for area businesses Website Virtual meeting option

Through engineering analysis and public input, a recommended layout was approved through the Aurora City Council on October 3, 2024 with the following key project components (see Appendix H and I):

- Construct a raised median on 3rd Avenue North between Erie Street and Hill Street. An opening in the median will be provided for the Embarrass Vermillion Federal Credit Union and Lakehead Constructors.
- Construct a 6-foot sidewalk along the south side of 3rd Avenue North between Erie Street and Hill Street.
- Install enhanced pedestrian crossings that utilize RRFBs (pedestrian activated flashers) on CSAH 100, Hill Street, and 3rd Avenue South.
- Construct a mini-roundabout at the intersection of Main Street and 3rd Avenue North.
- Construct a bridge overpass at the railroad crossing.* The bridge deck will include a 10-foot shared-use path on the west side of the deck, two 12-foot driving lanes and a protected 14-foot ATV/snowmobile lane. Include a box culvert under the south approach to the bridge to provide a grade separated underpass for the Mesabi Trail.
- Construct a 10-foot shared-use path on the west side of Main Street between Highway 110 and the downtown zone.
- Widen the sidewalks on Main Street in the downtown zone from 10 feet to 15 feet. Parking lanes will be reduced from 17 feet to 12 feet.

**Railroad grade separation at the railroad crossing is being pursued as a separate project as St. Louis County continues to seek funding for the bridge.*

Final Thoughts

The robust public engagement process utilized feedback from members of the public, local businesses, historical societies, tourism, and economic development organizations, byway communities, elected officials, and agency partners including MnDOT, MnDNR, USDA Forest

CSAH 100 Public Engagement Summary

Service, Minnesota Department of Public Safety, Lake County, and St. Louis County. Overall input reflected general support for the project goals, with comments focused on safety, preservation of historical and cultural resources, tourism opportunities, and local economic impacts.

Stakeholder feedback was documented and incorporated into Phase 2 and Phase 3 of project development, where alternatives were refined based on input received and a clearer understanding of project goals and objectives were identified to help define future steps of the project.

CSAH 100 Public Engagement Summary

APPENDIX

Appendix A: Postcard



CSAH 100 Public Engagement Summary



Public Works
4787 Midway Road
Duluth, MN 55811

Join us for a Public Meeting



Aurora Community Center
15 W 1st Ave N, Aurora, MN



Tuesday, March 19, 2024



6:00 PM



<https://bit.ly/CSAH100MeetingLink>

PROJECT AREA



Questions? Contact

Vic Lund 📞 218-625-3873 📧 lundv@stlouiscountymn.gov

YOUR PARTICIPATION MATTERS!

Visit the website below or scan the QR code to add a suggestion to the comment map, take the survey, and learn more about the project!



SCAN ME!



PRESRT STD.
U.S. POSTAGE
PAID
DULUTH, MN
PERMIT NO. 1003

****ECRWSS EDDM****
POSTAL CUSTOMER

<https://engage.stlouiscountymn.gov/cсах-100-corridor-study>

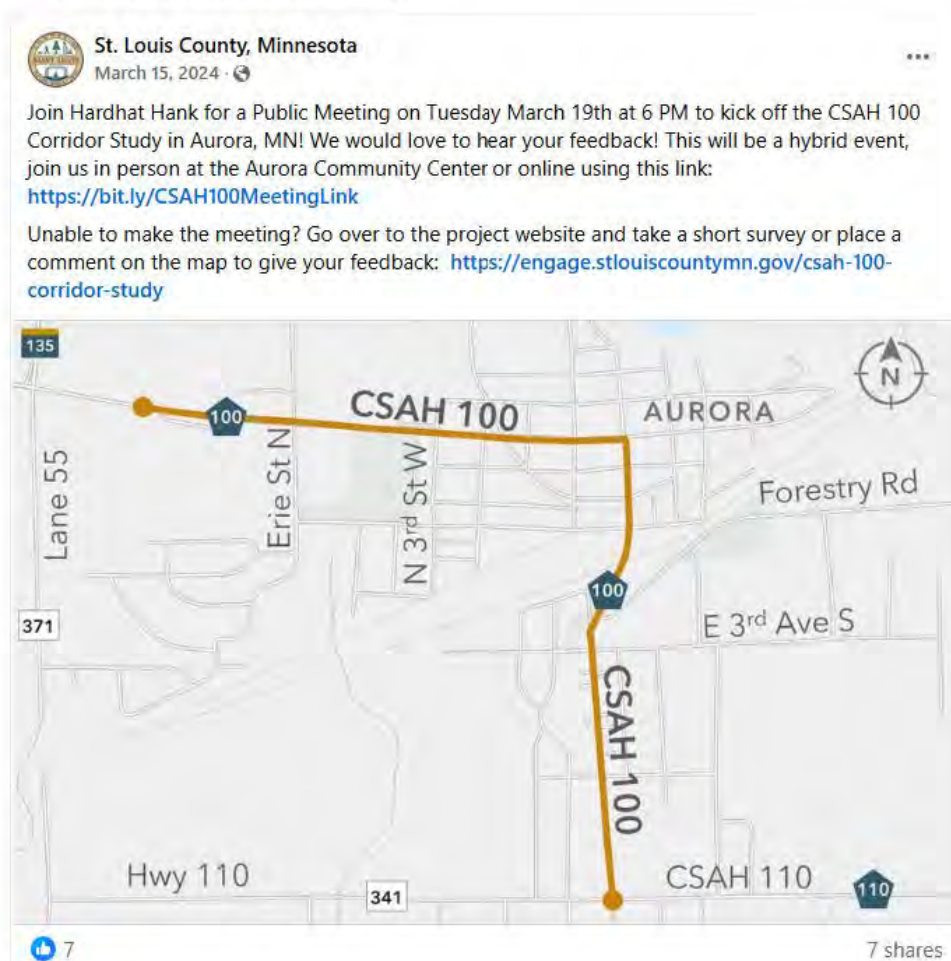
CSAH 100 Public Engagement Summary

Appendix B: Social Media Posts

CSAH 100 Corridor Social Media

First Meeting 3/19/2024:

- FB Event
- FB/Instagram post week before
- FB/Instagram post day of
- City of Aurora Post
- Thank you post after meeting



CSAH 100 Public Engagement Summary



St. Louis County, Minnesota

March 21, 2024 · 🌐

Thank you to all who joined us at the CSAH 100 Corridor Public Meeting in Aurora on Tuesday night! If you missed it and want to see a recording, check out the website below. The survey and comment map are still open! We would love to hear how you want Aurora to look in the future!

<https://engage.stlouiscountymn.gov/csa-100-corridor-study>



👍 9

11 shares



St. Louis County, Minnesota ▶ CSAH 100 Corridor Study Public Meeting (Aurora, MN)

March 15, 2024 · 🌐

See you all on Tuesday! Remember if you can't make the in person meeting, you can use the link below to join virtually:

<https://bit.ly/CSAH100MeetingLink>

If you aren't able to join at all and still want to give your feedback, please take the short survey or add a concern/suggestion on the comment map on the website:

<https://engage.stlouiscountymn.gov/csa-100-corridor-study>



ENGAGE.STLOUISCOUNTYMN.GOV

CSAH 100 Corridor Study

St. Louis County is leading a corridor study of CSAH 100 (3rd Ave N/Main St), beginning at a point 0.22 mile east of MNTH 135 and ending at CSAH 110 (Hwy 110), for a total length of 1.83 miles in the City of Aurora. The outcom...

CSAH 100 Public Engagement Summary

Second Meeting 7/9/2024:

- FB Event
- FB/Instagram post week before (Video)
- FB/Instagram post day of
- City of Aurora Post
- Thank you post after meeting
- Survey reminder post

 St. Louis County, Minnesota
July 2, 2024 · 🌐

Join Public Works for the CSAH 100 Corridor Study 2nd Public Meeting! Tuesday July 9th at the Aurora Community Center. If you are unable to attend in person and still want to listen in, use the virtual link below.

Virtual Meeting Link: <https://bit.ly/CSAH100Meeting>
Learn more about the project on the website: <https://engage.stlouiscountymn.gov/csa-100-corridor-study>



When: Tuesday July 9, 2024
Time: 6 PM
Where: Aurora Community Center

👍 5 🔊 4 shares

CSAH 100 Public Engagement Summary

 **St. Louis County, Minnesota**
July 11, 2024 · 🌐

Thank you to all who joined us on Tuesday night for the CSAH 100 Corridor Project Public Meeting in Aurora. If you were unable to attend, a recording of the meeting is on the website below. This meeting discussed the different alternatives for the corridor. Please use the link below to take the survey! You can help shape what Aurora will look like in the future!

Website: <https://engage.stlouiscountymn.gov/cсах-100-corridor-study>
Survey: <https://bit.ly/4cTNOJT>



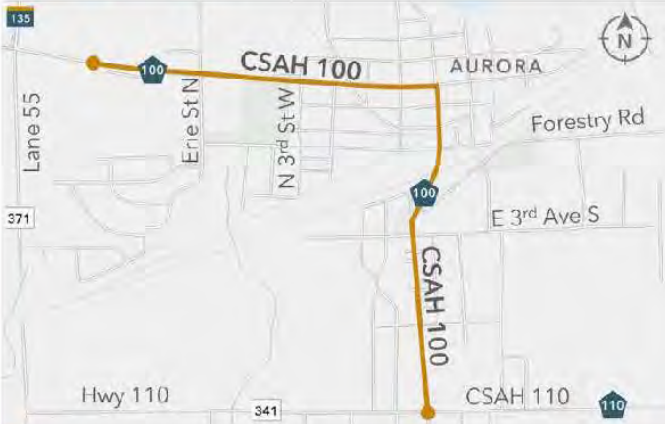
👍❤️ 7 3 comments 18 shares

👍 Like 💬 Comment ➦ Share

 **St. Louis County, Minnesota**
July 22, 2024 · 🌐

🔔 Friendly reminder to take the CSAH 100 Corridor Study Survey by this Friday (7/26). You can help shape what Aurora will look like in the future! Use the link below to submit yours!

Survey Link: <https://bit.ly/4cTNOJT>



2 12 shares

CSAH 100 Public Engagement Summary

Third Meeting 11/21/2024:

- FB Event
- FB/Instagram post week before
- FB/Instagram post day of
- City of Aurora Post
- Thank you post after meeting



CSAH 100 Public Engagement Summary



City of Aurora, MN · Follow

November 20, 2024 · 🌐

Friendly reminder of the of the [St. Louis County, Minnesota](#) CSAH 100 Public Meeting tomorrow at the Community Center beginning at 6:00 PM. 🚚 🚒



St. Louis County, Minnesota

November 20, 2024 · 🌐

👤 Join us for the third and final public meeting for the CSAH 100 Corridor Study tomorrow night at 6pm! Come see and hear about the preliminary layout for the CSAH 100 ... [See more](#)



8

19 comments 3 shares

CSAH 100 Public Engagement Summary

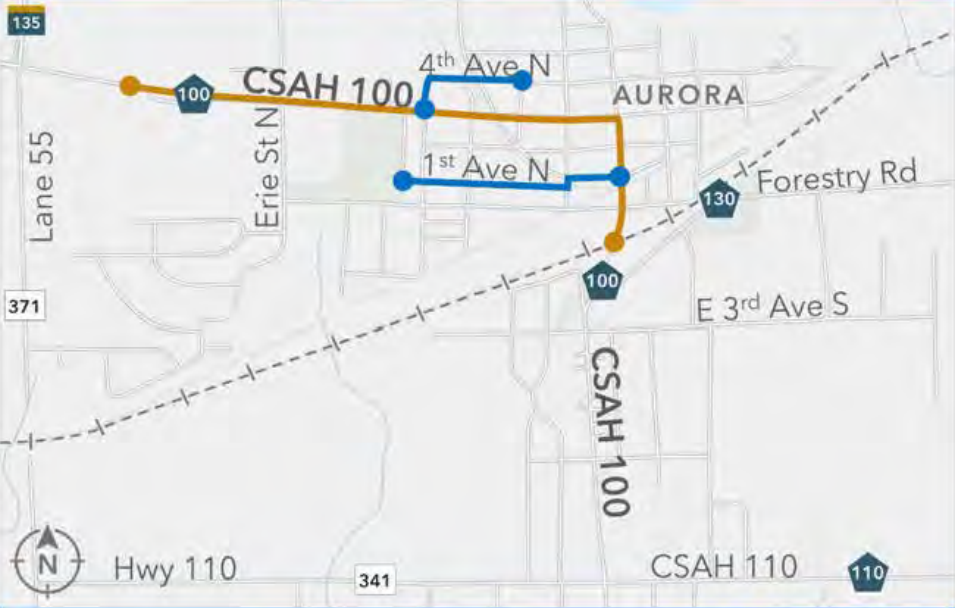


Design Information Meeting 11/23/2025:

- FB Event
- FB/Instagram post week before
- FB/Instagram post day of
- City of Aurora Post
- Thank you post after meeting

CSAH 100 Public Engagement Summary

CSAH 100 Design Information Open House



November 13 | 5-7 pm
📍 Aurora Community Center



<https://slcmn.co/CSAH100>

CSAH 100 Public Engagement Summary



St. Louis County, Minnesota

November 14, 2025 · 🌐

...

St. Louis County Public Works and City of Aurora want to thank everyone who attended the CSAH 100 Corridor Design Information Open House last night!

Project Website: <https://slcmn.co/CSAH100>



CSAH 100 Public Engagement Summary

Appendix C: News Releases

We only use cookies that are necessary for this site to function to provide you with the best experience. The controller of this site may choose to place supplementary cookies to support additional functionality such as support analytics, and has an obligation to disclose these cookies. Learn more in our [Cookie Statement](#).



Subscribe to updates from St. Louis County Minnesota

Email Address

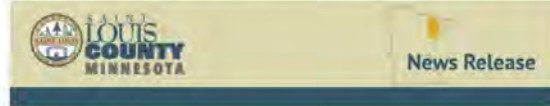
Share Bulletin

St. Louis County to host meeting on Highway 100 project in Aurora



St. Louis County Minnesota sent this bulletin at 03/04/2024 09:30 AM CST

[Having trouble viewing this email? View it as a Web page.](#)



Public Works Department • Richard H. Hansen Transportation & Public Works Complex
4757 Midway Road, Duluth, MN 55811 • Phone: (218) 625-3830

James T. Foldesi, P.E.
Public Works Director/Highway Engineer

NEWS RELEASE

FOR IMMEDIATE RELEASE:
March 4, 2024

MEDIA CONTACT: Victor Lund, Traffic Engineer
218-625-3873 or vlund@stlouiscountymn.gov

Public meeting set to discuss future reconstruction of County State Aid Highway (CSAH) 100 in Aurora

St. Louis County Public Works staff will host a public meeting to listen to community input in preparation for the reconstruction of a nearly two-mile stretch of County State Aid Highway (CSAH) 100 in Aurora. The meeting will be Tuesday, March 19, beginning at 6 p.m. at the Aurora Community Center, 15 West 1st Avenue North. The meeting also will be available to view virtually.

The project will cover an L-shaped segment of CSAH 100, which is also known as 3rd Avenue North and Main Street, from approximately a quarter mile east of Highway 135 to Highway 110. St. Louis County and the City of Aurora are partnering on the project, which is scheduled for 2026. Using funding from the State, the City of Aurora will be replacing utilities, while the County reconstructs the road.

In preparation for this work, county engineers are leading a corridor study to develop the preferred layout. This includes evaluating options for the intersection of Main Street and 3rd Avenue North in downtown Aurora.

To learn more about the project, provide feedback online, or participate in the meeting virtually, visit stlouiscountymn.gov/csaah-100-corridor-study. Two additional meetings are expected later this year to keep the public informed as planning progresses.



CSAH 100 Public Engagement Summary

From: [St. Louis County MN](#)
To: [Keith Granholm](#); [johnsonk2@stlouiscountymn.gov](#); [Joshua Hall](#); [Dawn Sathers](#); [Wade Rasch](#); [Shannon Nelson](#); [Victor Lund](#); [Kari Ferkul](#); [Julie Geissler](#); [Mary Tennis](#); [Bradley Brunfelt](#); [Brooke Wetmore](#); [Dana Kazel](#); [Kristin Anderson](#); [Breanna Archer](#); [Elizabeth "Liz" Fifield](#); [Juli Lattner](#); [Cheryl VanGuilder](#); [BreAnn Graber](#); [MNSTLOUISEHOWS@public.govdelivery.com](#)
Subject: Courtesy Copy: County to present final design plans for County State Aid Highway (CSAH) 100 in Aurora
Date: Wednesday, October 29, 2025 9:00:55 AM

WARNING: External email. Please verify sender before opening attachments or clicking on links.

This is a courtesy copy of an email bulletin sent by Dana Kazel.

This bulletin was sent to the following groups of people:

Subscribers of CSAH 100 Corridor Study or Public Works News Releases (9648 recipients)

NEWS RELEASE

**FOR IMMEDIATE RELEASE:
October 28, 2025**

MEDIA CONTACT: Victor Lund, Traffic Engineer
218-625-3873 or lundv@stlouiscountymn.gov

St. Louis County Public Works to present final design plans for County State Aid Highway (CSAH) 100 in Aurora

St. Louis County Public Works engineers have completed design work to reconstruct the County State Aid Highway (CSAH) 100 corridor in Aurora and will hold an open house to present final design plans to the public. The meeting will be Thursday, November 13, from 5-7 p.m. at the Aurora Community Center, 15 West 1st Avenue North.

The County has been working in partnership with the City of Aurora since early 2024 to conduct a corridor study of the L-shaped segment of CSAH 100, which is also known as 3rd Avenue North and Main Street, from approximately a quarter mile east of Highway 135 to Highway 110. The study included evaluating options for the intersection of Main Street and 3rd Avenue North in downtown Aurora.

The City of Aurora will also present its plans for city street improvements at this meeting. City streets include 1st Ave North, 2nd Ave North, 3rd Street West and 4th Ave North. The CSAH 100 and city street improvements will be combined into a single cooperative project that will be led by St. Louis County.

Construction is scheduled to begin in 2026. Using funding from the State, the City of Aurora will be replacing utilities, while the County reconstructs the road. To learn more about the project, visit: <https://slc.mn.co/CSAH100>

CSAH 100 Public Engagement Summary

From: [St. Louis County MN](#)
To: [Breanna Archer](#)
Subject: Courtesy Copy: Public Meeting in Aurora for Hwy 100 corridor study
Date: Monday, November 18, 2024 12:56:06 PM

WARNING: External email. Please verify sender before opening attachments or clicking on links.

This is a courtesy copy of an email bulletin sent by Dana Kazel.

This bulletin was sent to the following groups of people:

Subscribers of CSAH 100 Corridor Study or Public Works News Releases (7362 recipients)

NEWS RELEASE

FOR IMMEDIATE RELEASE: November 18, 2024

MEDIA CONTACT: Victor Lund, Traffic Engineer
218-626-3873 or lundv@stlouiscountymn.gov

St. Louis County Public Works to present preliminary layout for County State Aid Highway (CSAH) 100 in Aurora

St. Louis County Public Works staff have completed the corridor study for County State Aid Highway (CSAH) 100 in Aurora, and will hold a public meeting to present the preliminary layout. The meeting will be Thursday, November 21, beginning at 6 p.m. at the Aurora Community Center, 15 West 1st Avenue North. The meeting also will be available to view virtually.

The County has been working in partnership with the City of Aurora to conduct the study of an L-shaped segment of CSAH 100, which is also known as 3rd Avenue North and Main Street, from approximately a quarter mile east of Highway 135 to Highway 110. The study included evaluating options for the intersection of Main Street and 3rd Avenue North in downtown Aurora.

The preliminary layout was presented to the Aurora City Council and approved last month. Following this public meeting, county engineers will move into the design phase of the project, which is scheduled for construction in 2026. Using funding from the State, the City of Aurora will be replacing utilities, while the County reconstructs the road.

To learn more about the project, provide feedback online, or participate in the meeting virtually, visit: engage.stlouiscountymn.gov/csa-100-corridor-study. Two additional meetings are expected next year as part of the design phase.

###

Update your subscriptions, modify your password or email address, or stop subscriptions at any time on your [Subscriber Preferences Page](#). You will need to use your email address to log in. If you have questions or problems with the subscription service, please visit subscriberhelp.govdelivery.com.

This service is provided to you at no charge by [St. Louis County MN](#).

CSAH 100 Public Engagement Summary

Appendix D: Pictures from Public Meetings

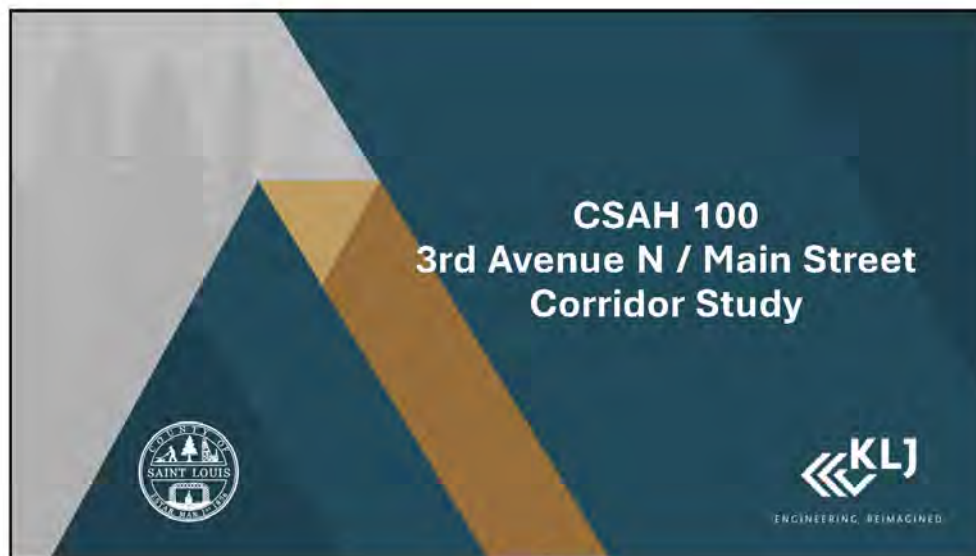


CSAH 100 Public Engagement Summary



CSAH 100 Public Engagement Summary

Appendix E: Phase 1 Engagement Presentation



1

Project Team

St. Louis County

- Vic Lund, PE, PTOE, Project Manager
- Eric Fallstrom, PE, Resident Engineer
- Brea Archer, Project Communications
- Stephanie Boyum and Sam Giebner, Project Technical Support

KLJ Engineering

- Adam McGill, PE, Project Manager

City of Aurora

- Lucas Heikkila, City Administrator

PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

2

CSAH 100 Public Engagement Summary

Project Overview – Why?

1. City utilities need replacement.
2. The road structure for CSAH 100 (3rd Ave N/Main St) is nearing the end of its service life.
3. Both the County and City received state funding to replace utilities and reconstruct CSAH 100. Funds must be encumbered June 30, 2027.



Need to develop the new layout of the corridor.

PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

3

Project Overview Where?



PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

4

CSAH 100 Public Engagement Summary

Project Overview – What?

1. Driving lanes
2. On-street parking
3. Pedestrian/bike facilities and crossings
4. Intersection of Main St and 3rd Ave N
5. Railroad crossing (USDOT #252305T)
6. Intersections of Main St at Forestry Rd (CSAH 130) and 1st St W
7. Downtown streetscape
8. Vegetation and tree plantings
9. Building enhancement funds - City
10. Utility replacements - City

PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

5

Project Overview – Existing Street Space



PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

6

CSAH 100 Public Engagement Summary

Project Overview – Existing Street Space



7

Project Overview – Pedestrian Facilities

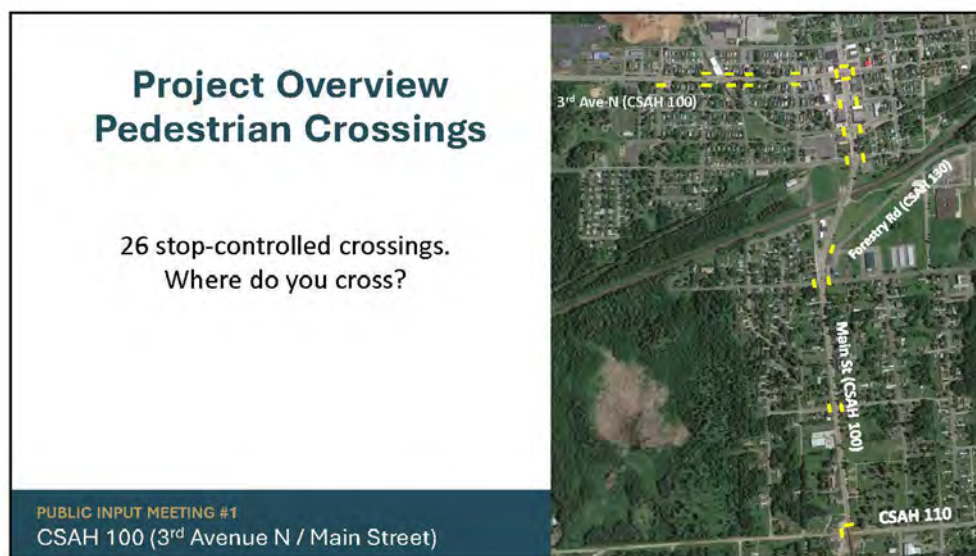


8

CSAH 100 Public Engagement Summary



9



10

5

31

CSAH 100 Public Engagement Summary

Project Overview Bicycle Facilities

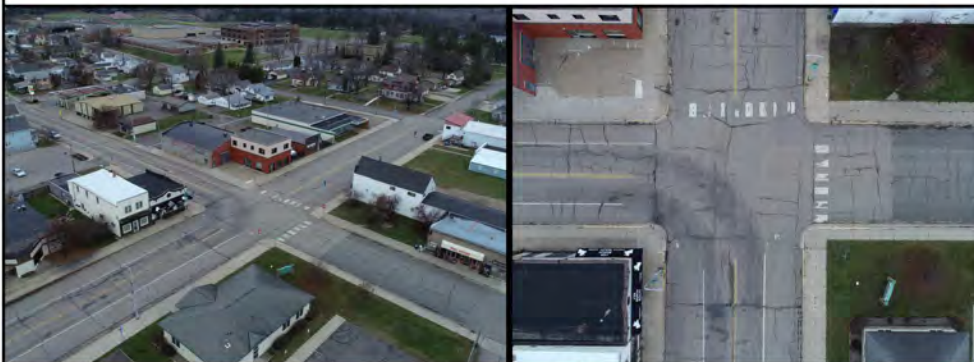
The Mesabi Trail ends ~400 ft
west of 4th St W.



PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

11

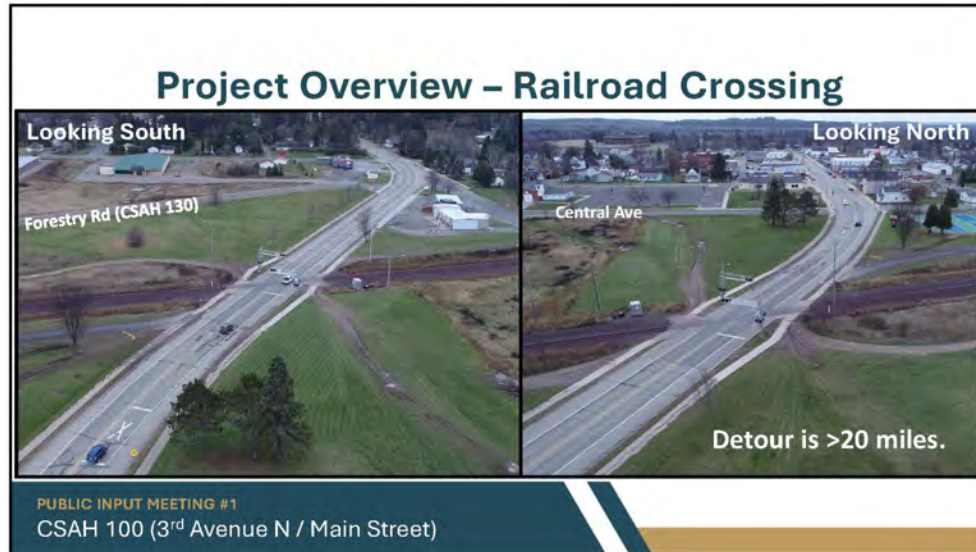
Project Overview – Main St and 3rd Ave N



PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

12

CSAH 100 Public Engagement Summary



13



14

CSAH 100 Public Engagement Summary

Project Overview

- Business Enhancement
- City Utility Replacement

PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

15

Opportunities and Considerations

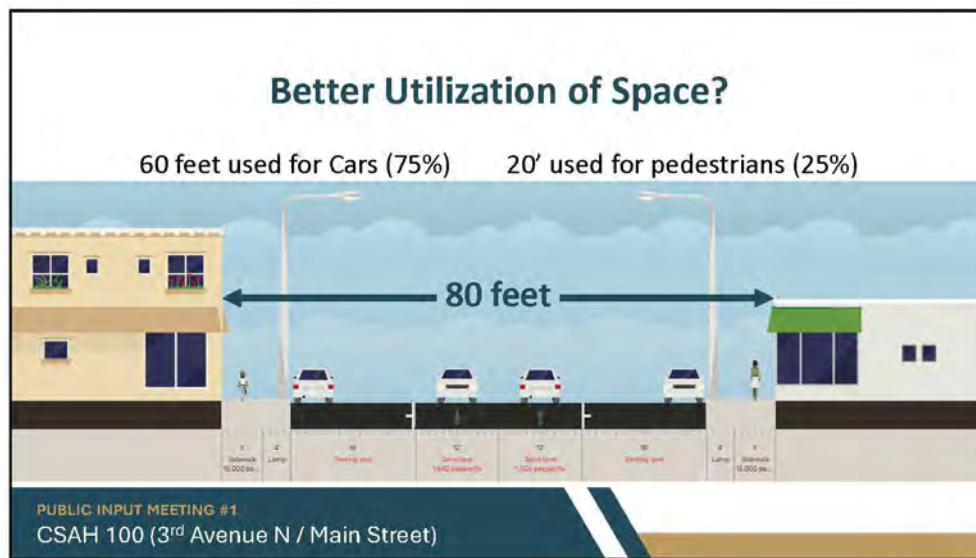
- Significant area of unused street space (better utilization of space?)
- Intersection operations and safety for all users
- Better alignment of the speed limit with the roadway context
- Access management
- Corridor Lighting
- Community/Place Development
- Business Development and outdoor patio opportunities/parklets
- Enhanced pedestrian crossings
- ARDC Safe Routes to School plan
- Superior National Forest Scenic Byway
- New-Range Copper/Nickel Mine

PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

16

CSAH 100 Public Engagement Summary

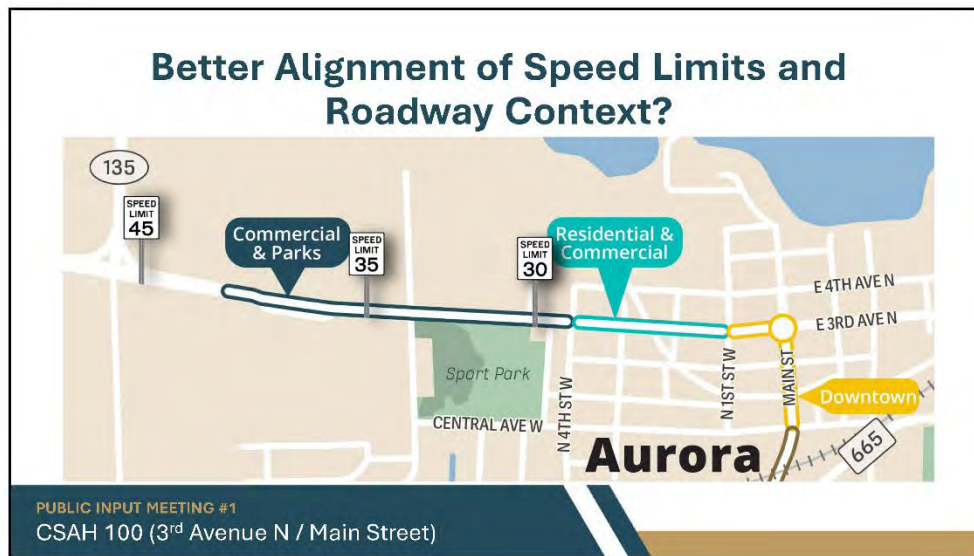


17



18

CSAH 100 Public Engagement Summary



19



20

10

36

CSAH 100 Public Engagement Summary

Outdoor Patio Opportunities/Parklets



PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

21

Arrowhead Regional Development Commission



PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

22

CSAH 100 Public Engagement Summary

Superior National Forest Scenic Byway



PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

A Minnesota Scenic Byway through the heart of the Superior National Forest between Aurora on the historic Iron Range and Silver Bay on the North Shore of Lake Superior.

23

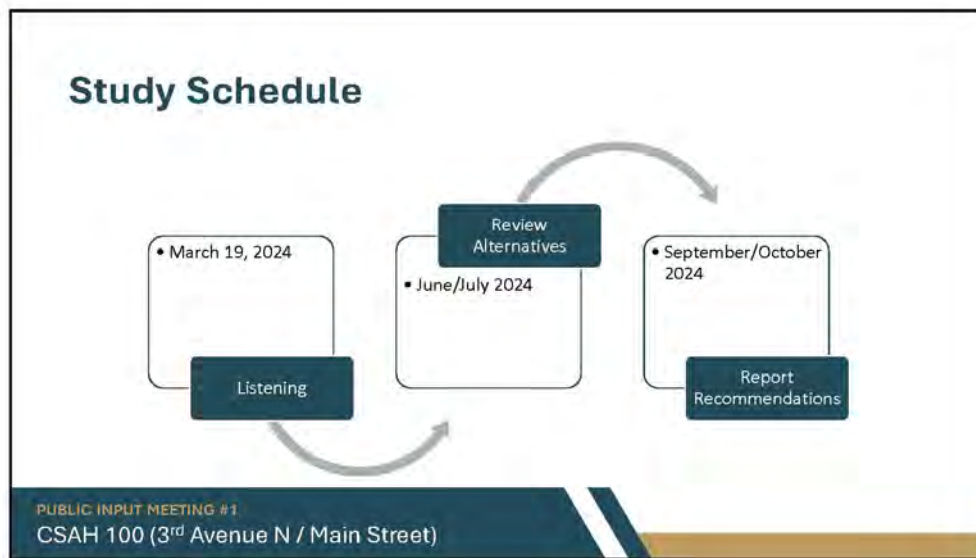
Data Collection

- Turning movement counts
 - Main St and 3rd Ave N (completed Wednesday, October 25, 2023)
 - Main St and Hwy 110 (completed Thursday, October 19, 2023)
- Parking utilization study (currently ongoing)
- Vehicle speeds (will be completed in spring 2024)
- Crash data (continuously updated by Department of Public Safety)

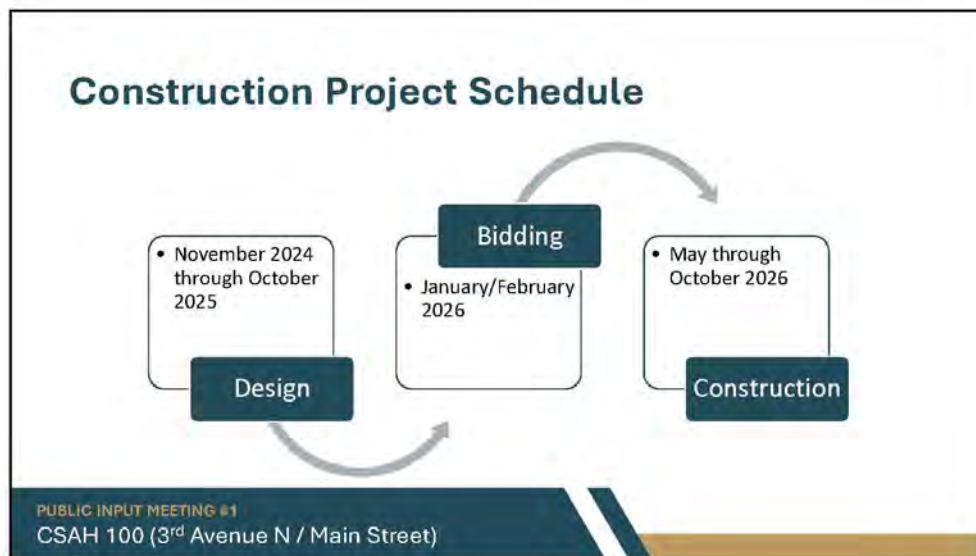
PUBLIC INPUT MEETING #1
CSAH 100 (3rd Avenue N / Main Street)

24

CSAH 100 Public Engagement Summary



25



26

CSAH 100 Public Engagement Summary

We want to hear from you!

- Questions and Answers
- Survey (online and in-person)
- Comment Map (online and in-person)
- Future Questions?
 - Vic Lund, Project Manager
 - lundv@stlouiscountymn.gov
 - 218-625-3873

PUBLIC INPUT MEETING #1

CSAH 100 (3rd Avenue N / Main Street)

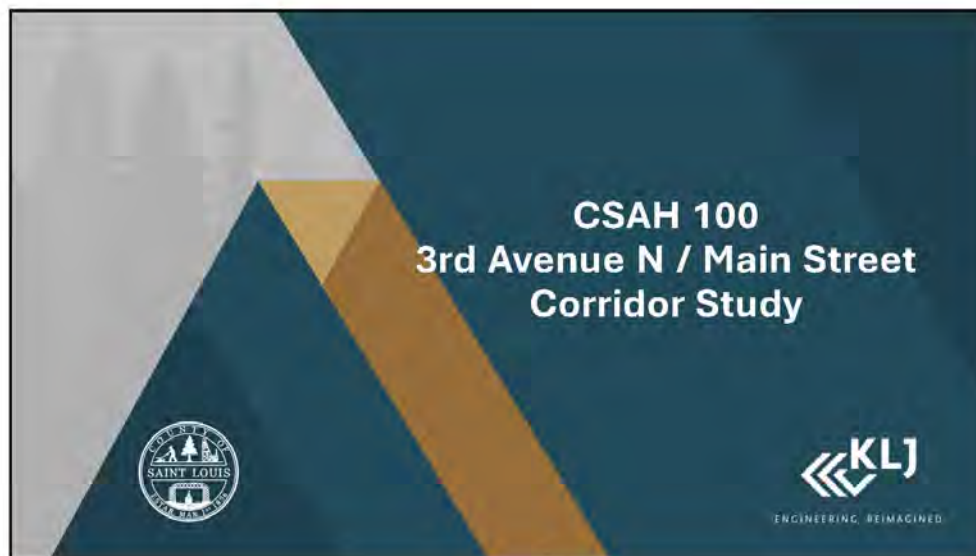
27



28

CSAH 100 Public Engagement Summary

Appendix F: Phase 2 Engagement Presentation



1

Project Team

St. Louis County

- Vic Lund, PE, PTOE, Project Manager
- Eric Fallstrom, PE, Resident Engineer
- Brea Archer, Project Communications
- Stephanie Boyum and Sam Giebner, Project Technical Support

KLJ Engineering

- Adam McGill, PE, Project Manager

City of Aurora

- Lucas Heikkila, City Administrator

PUBLIC INPUT MEETING #2 - Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

2

CSAH 100 Public Engagement Summary

Project Overview – Why?

1. City utilities need replacement.
2. The road structure for CSAH 100 (3rd Ave N/Main St) is nearing the end of its service life.
3. Both the County and City received state funding to replace utilities and reconstruct CSAH 100. Funds must be encumbered June 30, 2027.



Need to develop the new layout of the corridor.

PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

3

Project Overview Where?



PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

4

CSAH 100 Public Engagement Summary

Project Overview – What?

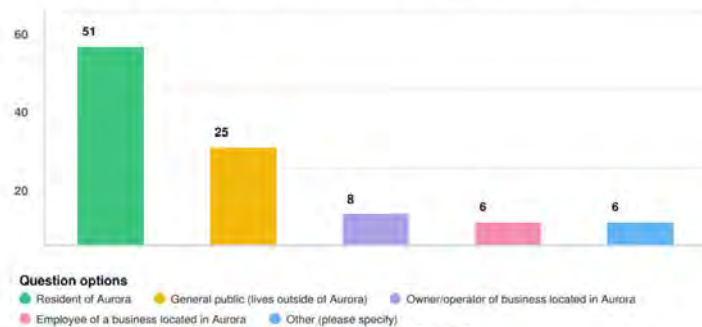
1. Driving lanes
2. On-street parking
3. Pedestrian/bike facilities and crossings
4. Intersection of Main St and 3rd Ave N
5. Railroad crossing (USDOT #252305T)
6. Intersections of Main St at Forestry Rd (CSAH 130) and 1st St W
7. Downtown streetscape
8. Vegetation and tree plantings
9. Building enhancement funds - City
10. Utility replacements - City

PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

5

Recap of the March 19th Public Meeting

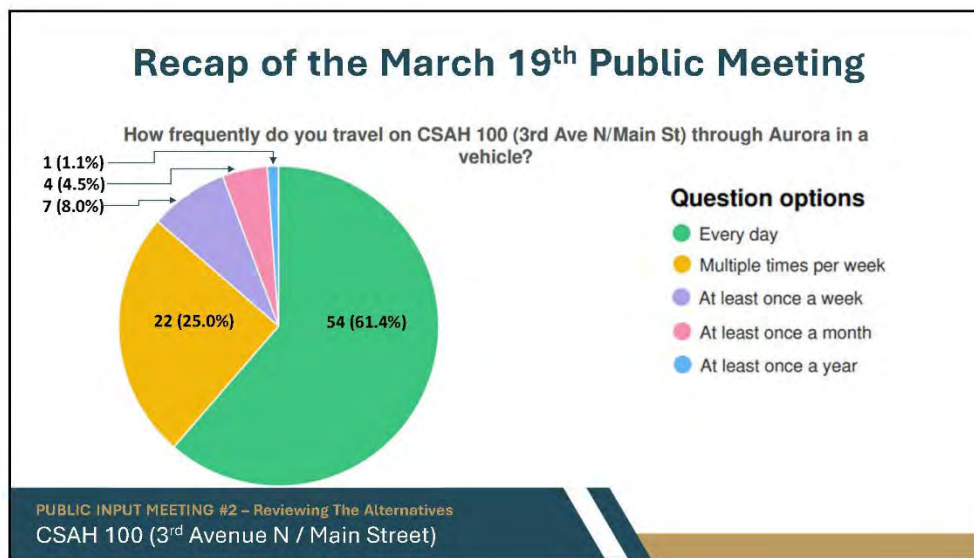
What stakeholder group best represents you? (Select all that apply)



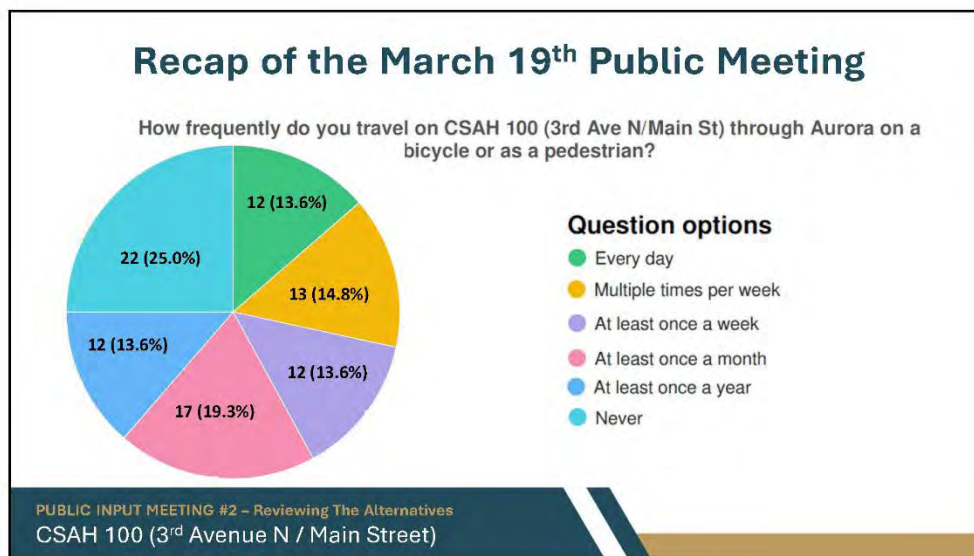
PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

6

CSAH 100 Public Engagement Summary

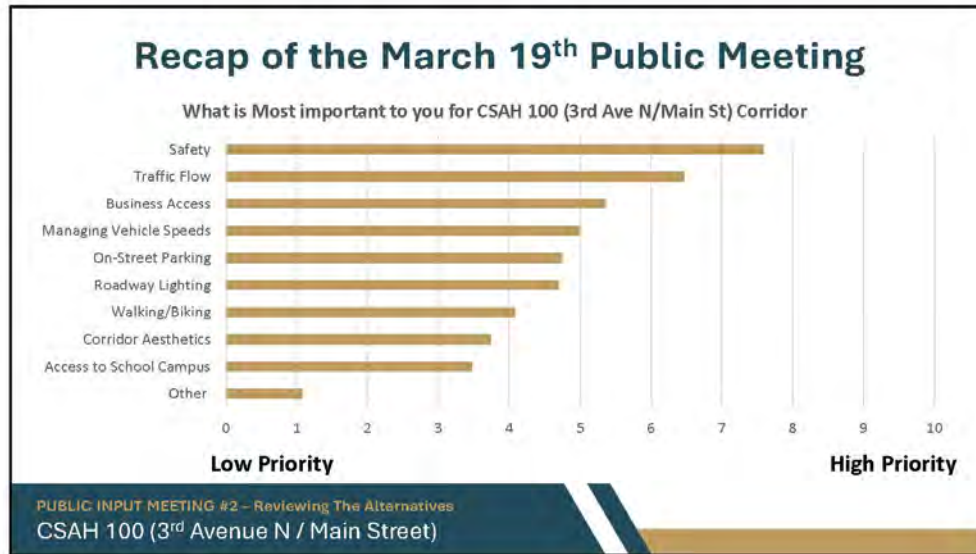


7

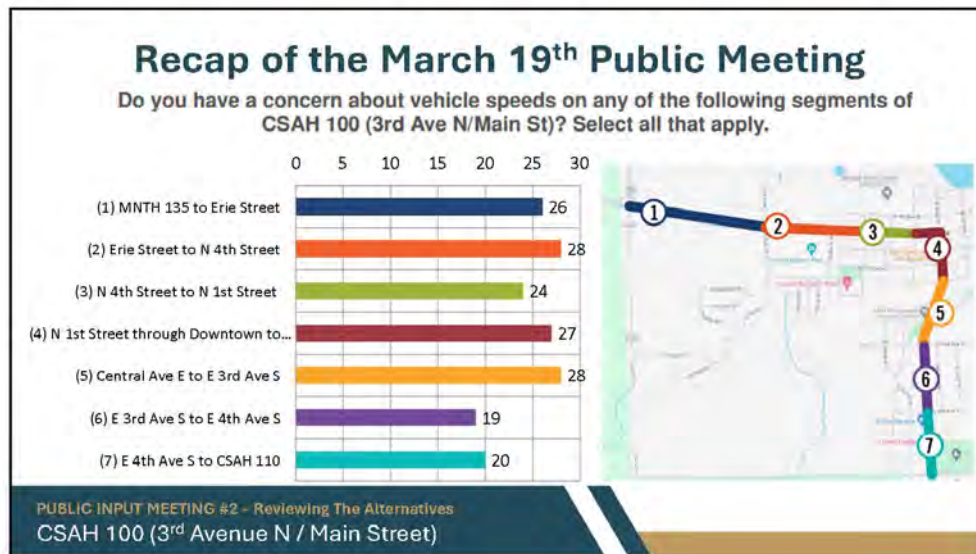


8

CSAH 100 Public Engagement Summary

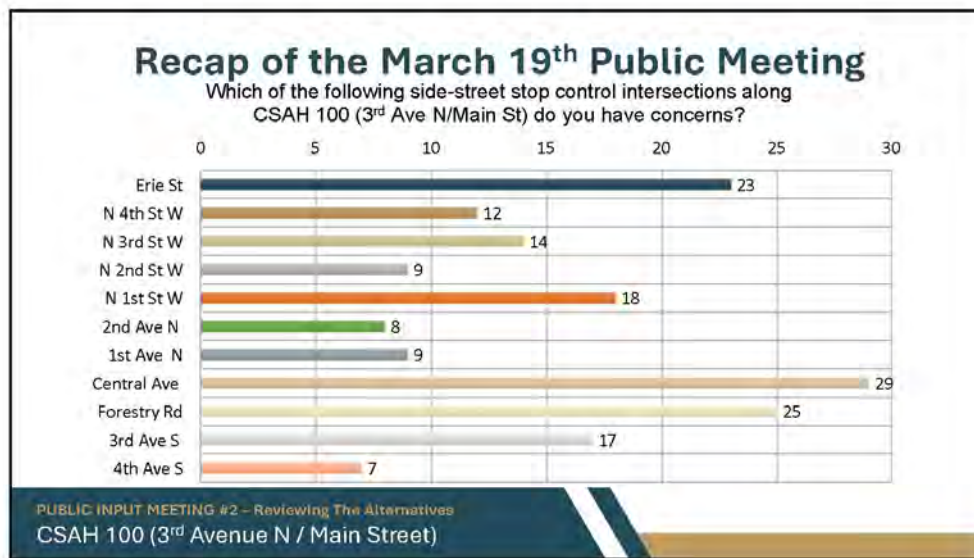


9

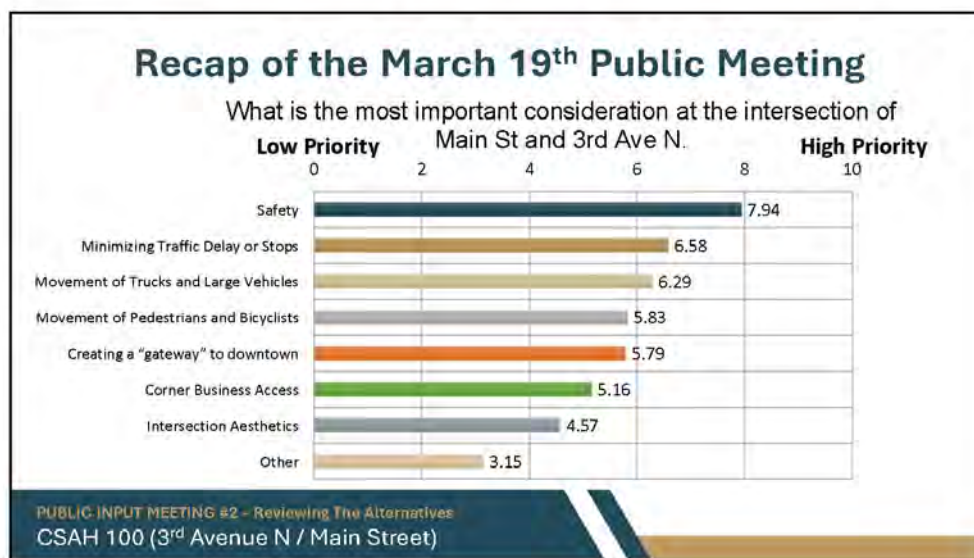


10

CSAH 100 Public Engagement Summary



11



12

CSAH 100 Public Engagement Summary

Recap of the March 19th Public Meeting

1. DON'T MAKE IT LIKE BIWABIK!
2. Safety is the overall highest priority for this corridor
3. Traffic Flow is the second highest priority for this corridor
4. Vehicle speed concerns between Erie St - 4th St and Central Ave – 3rd Ave S
5. Crossing Concerns at Central Ave, Forestry Street, and Erie Street

PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

13

Traffic Analysis Results

Table 7 – Existing and No-Build Operations Results

Year	Peak	Delay (s/veh)	LOS
2023	AM	9.7	A
	PM	10.3	B
2045	AM	11.0	B
	PM	13.4	B

• 3rd Ave / Main Street

- Traffic Signal – 0 Warrants Met
- All-Way stop control – 3 Warrants Met in 2045
- Mini-Roundabout
 - Benefit – Cost Ratio: 5.43

Table 8 – 2045 Operations Results

Alternative	Peak	Delay (sec/veh)	LOS
No-Build	AM	11.0	B
	PM	13.4	B
Mini-Roundabout	AM	1.1	A
	PM	1.4	A

PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

14

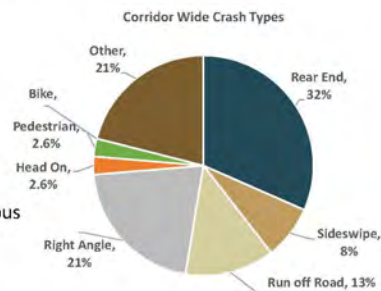
CSAH 100 Public Engagement Summary



15

Traffic Analysis Results – Crash Analysis

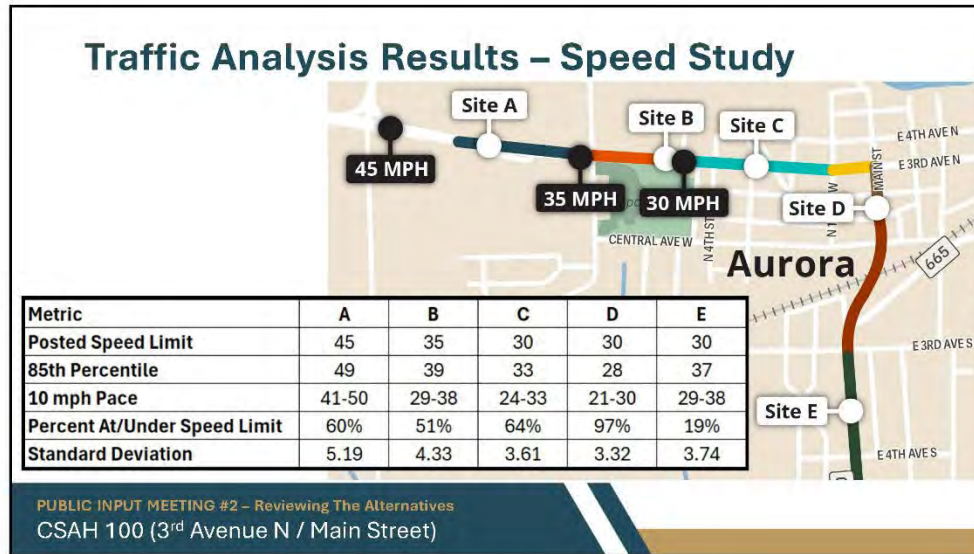
- 38 crashes between 2014 and 2023
 - No Fatal or Incapacitating crashes
 - 6 Serious Injury Crashes
 - 4 Possible Injury Crashes
 - 28 Property Damage only Crashes
- 1 crash at Railroad Crossing
 - Property Damage only rear-end crash involving school bus during icy conditions
- Average annual corridor crash costs \$244,000
- 55% of crashes involved wet/snow/icy conditions
 - 8 of 12 rear ends involved wet/snow/icy conditions
- Corridor crash rate above Statewide average for similar roadways



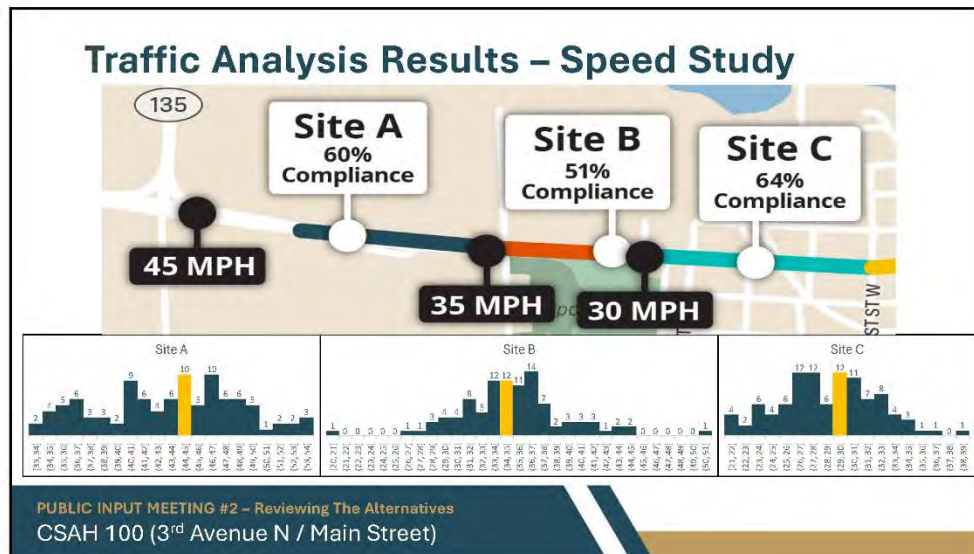
PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

16

CSAH 100 Public Engagement Summary

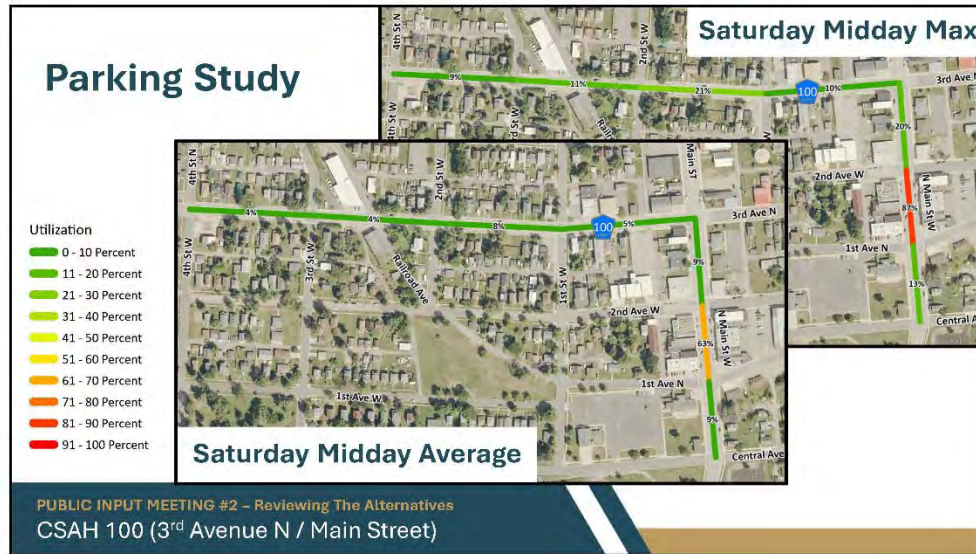


17

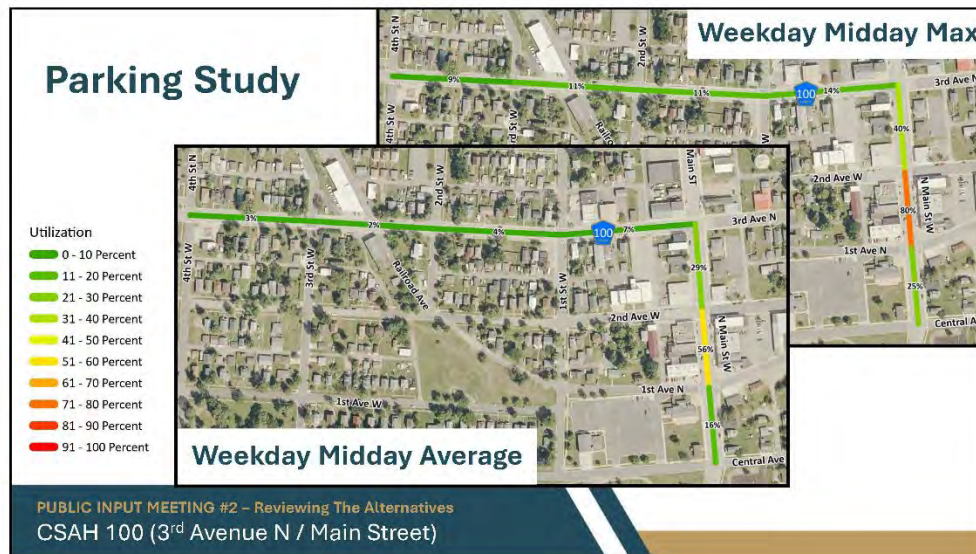


18

CSAH 100 Public Engagement Summary

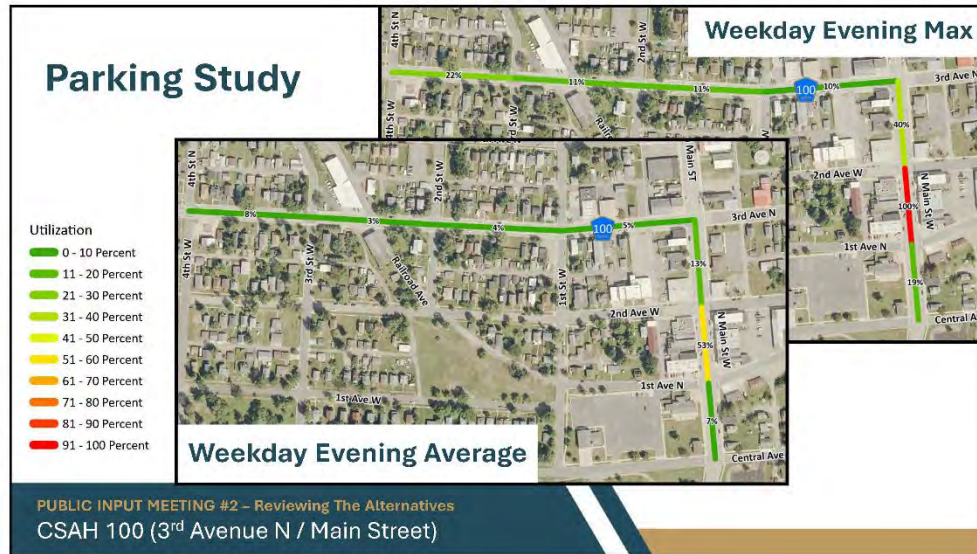


19

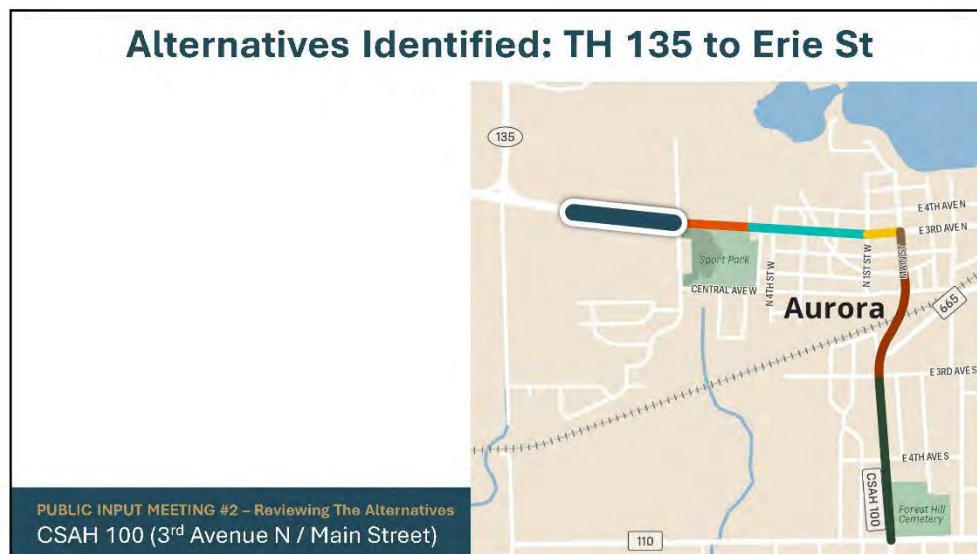


20

CSAH 100 Public Engagement Summary



21



22

CSAH 100 Public Engagement Summary

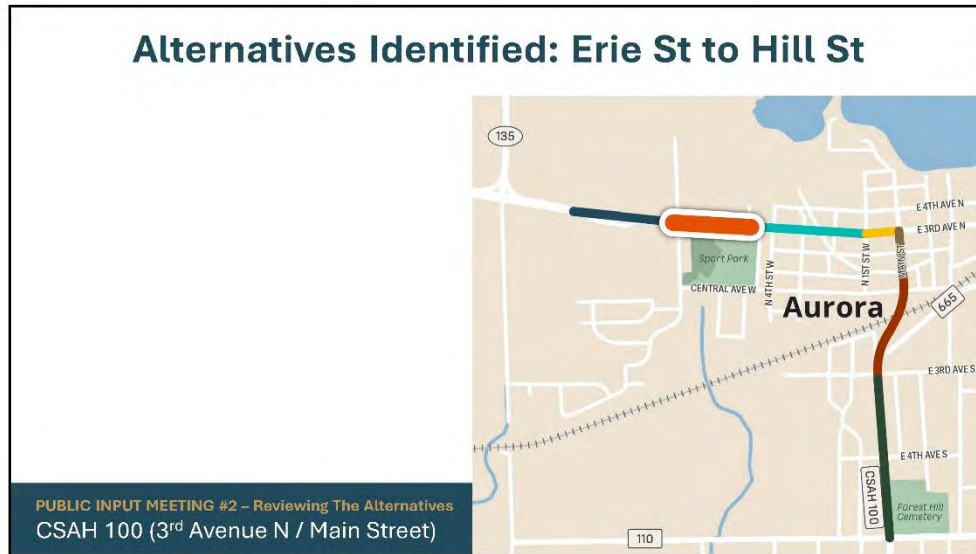


23



24

CSAH 100 Public Engagement Summary



25



26

13

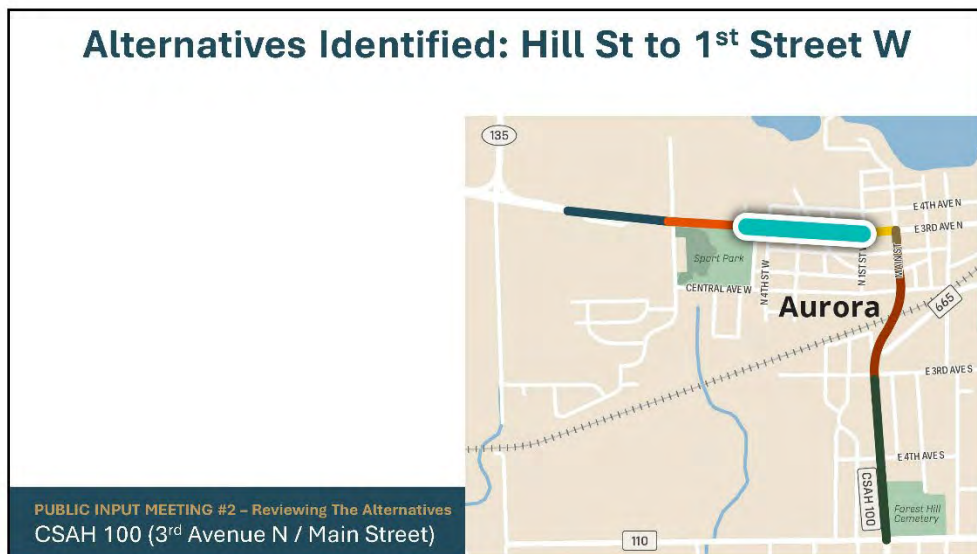
53



CSAH 100 Public Engagement Summary



29



30

15

55

CSAH 100 Public Engagement Summary

Planned Bike Route Through Aurora



PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

31



32

CSAH 100 Public Engagement Summary



33



34

CSAH 100 Public Engagement Summary

Alternatives Identified: 1st Street W to Main St



35



36

18

58

CSAH 100 Public Engagement Summary



Parking with Paved Boulevard

37



No Parking – More Pedestrian Area

38

CSAH 100 Public Engagement Summary



39



40

20

60

CSAH 100 Public Engagement Summary



41



42

CSAH 100 Public Engagement Summary



43



44

22

62

CSAH 100 Public Engagement Summary

Railroad Grade Separation Feasibility Analysis



PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

45

Railroad Grade Separation Feasibility Analysis

Estimated Additional Cost of
a Grade Separated Crossing:

Approx. \$5,000,000

Benefit – Cost Ratio

1.98 : 1



PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

46

CSAH 100 Public Engagement Summary



47



48

CSAH 100 Public Engagement Summary



49



50

CSAH 100 Public Engagement Summary

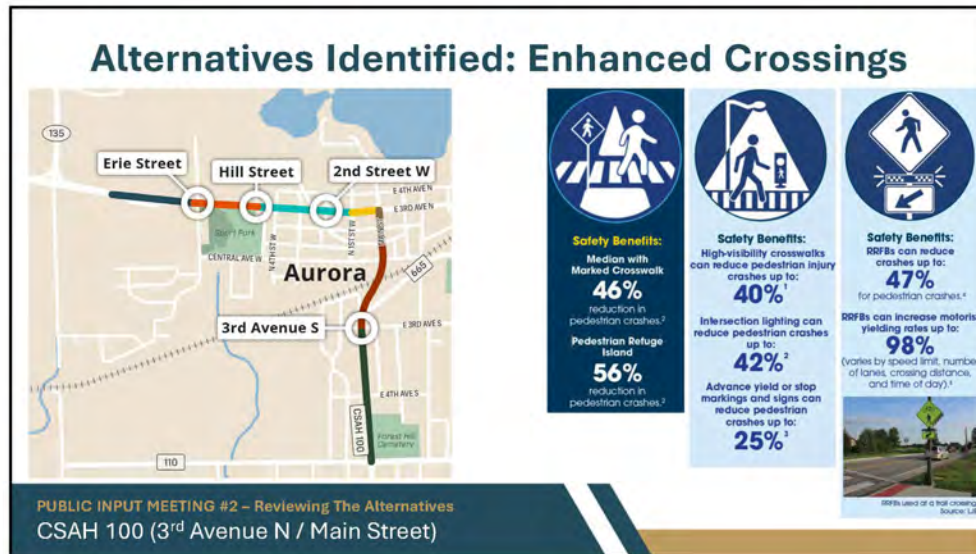


51

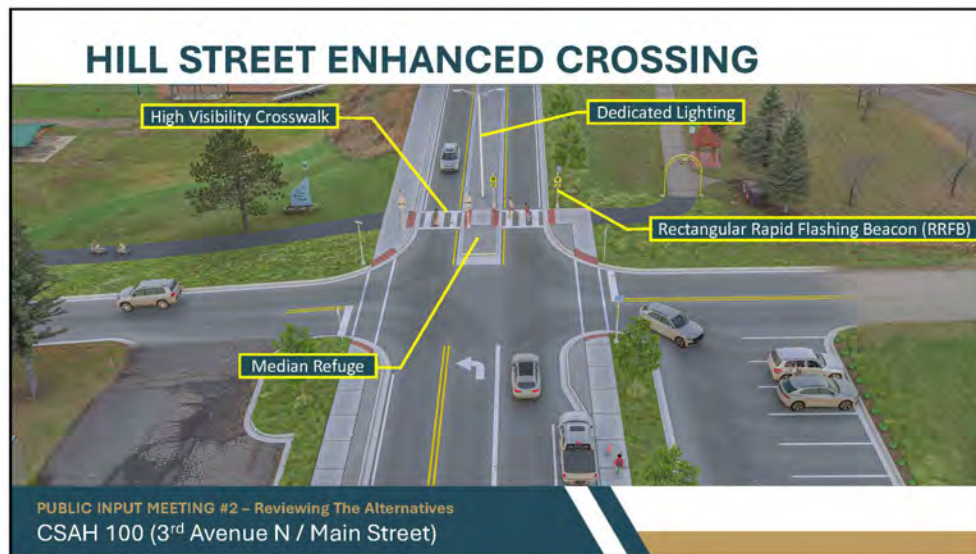


52

CSAH 100 Public Engagement Summary

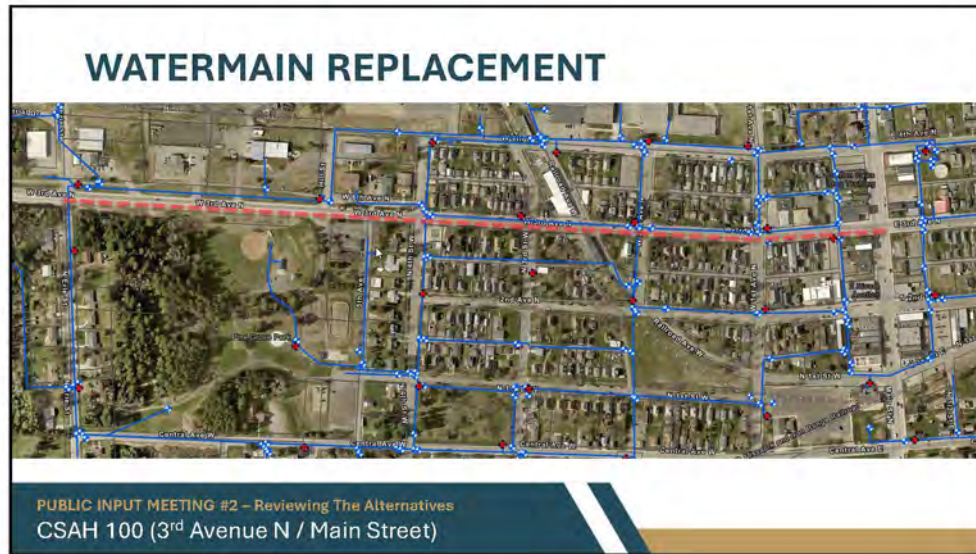


53

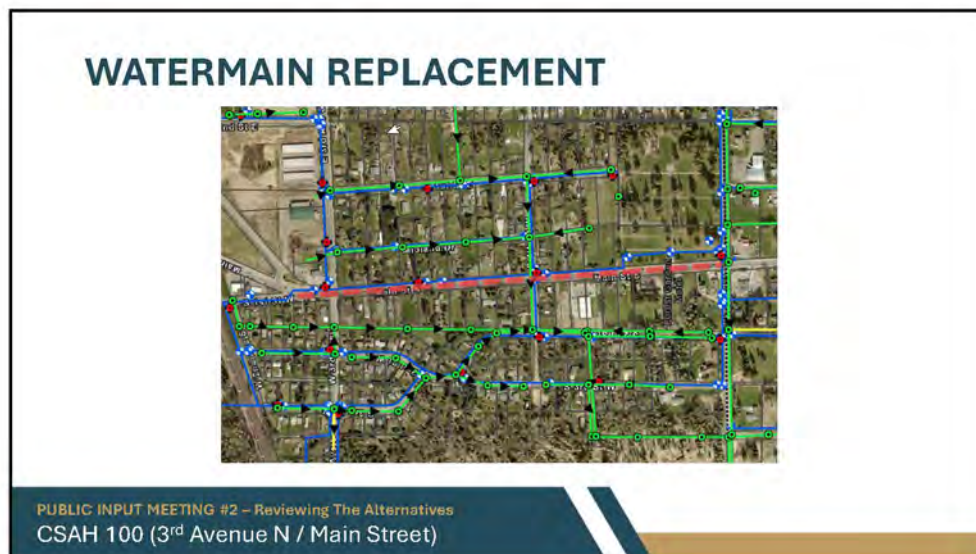


54

CSAH 100 Public Engagement Summary



55



56

CSAH 100 Public Engagement Summary

ADDITIONAL INFORMATION

- WATERMAIN REPLACEMENT COST
 - \$2.0 MILLION
- FUNDING SOURCES
 - PUBLIC FINANCE AUTHORITY
- FUTURE EXTENTION OF SERVICE

PUBLIC INPUT MEETING #2 - Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

57

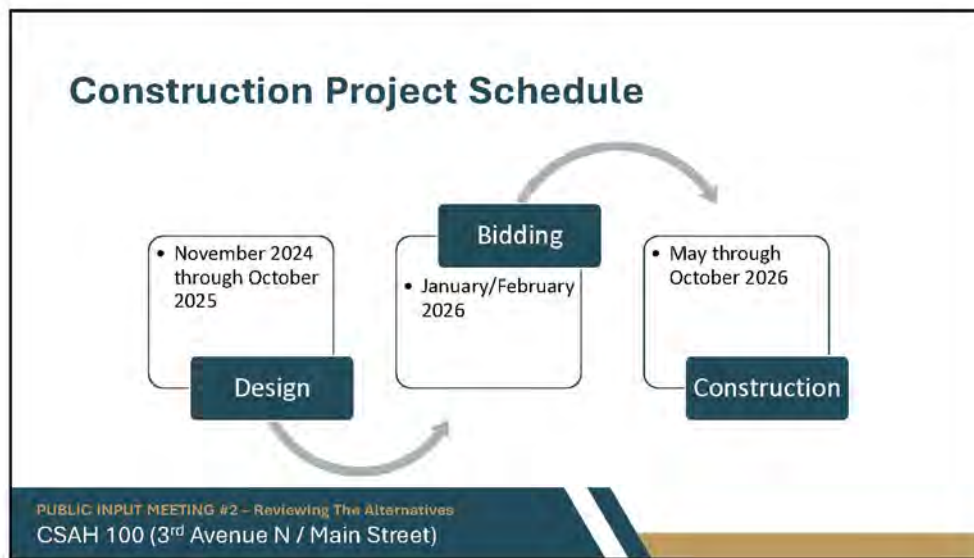
Study Schedule



PUBLIC INPUT MEETING #2 - Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

58

CSAH 100 Public Engagement Summary



59

We want to hear from you!

- Questions and Answers
- Survey (online and in-person)
- Comment Map (online and in-person)
- Future Questions?
 - Vic Lund, Project Manager
 - lundv@stlouiscountymn.gov
 - 218-625-3873

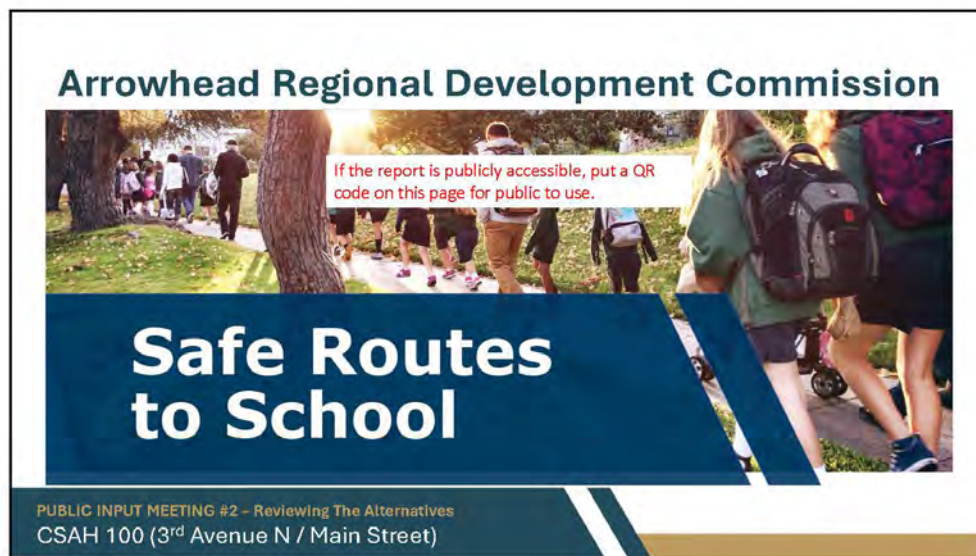
PUBLIC INPUT MEETING #2 – Reviewing The Alternatives
CSAH 100 (3rd Avenue N / Main Street)

60

CSAH 100 Public Engagement Summary



61



62

31

71



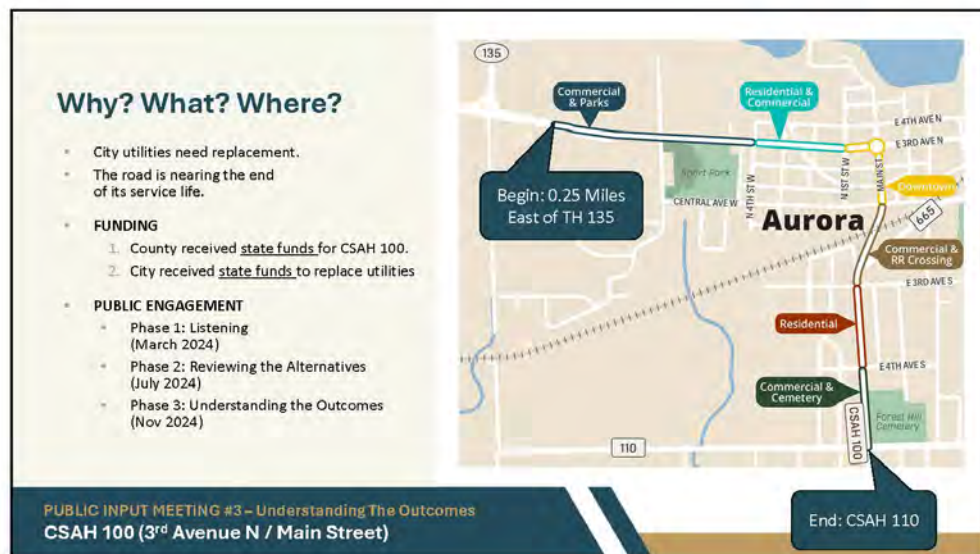
CSAH 100
3rd Avenue N / Main Street
Corridor Study

UNDERSTANDING THE OUTCOMES



ENGINEERING. REIMAGINED.

1



2

CSAH 100 Public Engagement Summary

Railroad Crossing Elimination Grant

- Grant opportunity to construct a grade-separated railroad crossing
- St. Louis County and Aurora City Council prepared the bridge concept
- Submitted funding application on September 20, 2024
- Expecting an announcement in 1st quarter 2025
- If application is not successful, St. Louis County will continue looking for other funding sources



PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

3

Preliminary Layout Process

August 29, 2024

St. Louis County met with the Aurora City Council on to discuss how to finalize the preliminary layout.

City Of Aurora

- Lucas Heikkila, City Administrator
- Doug Gregor, Mayor of Aurora
- Richard Hens, City Council
- Josh Siler, PE, City Engineer (Bolton and Menk)

St Louis County

- Vic Lund, PE, County Traffic Engineer
- Eric Fallstrom, PE, Resident Engineer Public Works
- Carol Andrews, Public Work Environmental Engineer
- Tanja Mattonen, PE, Assistant Traffic Engineer

KLJ Engineering

- Adam McGill, PE, Consultant Project Manager

This TEAM reviewed:

the engineering analysis and public input through the surveys to develop the recommended layout to be considered by the City Council.

September 12, 2024

St Louis County and KLJ Engineering conducted a Workshop with the Aurora City Council to refine the layout.

October 3, 2024

The Aurora City Council Reviewed and Approved the preliminary layout.

RESOLUTION

Approval provides that the preliminary layout will be the basis for the final design.

PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

4

CSAH 100 Public Engagement Summary

Preliminary layout
Switch to PRESI Presentation

PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

5

Engagement Driven Project Components

1. Enhanced crossing at Erie St (General Public)
2. Enhanced crossing at Hill St (Mesabi Trail)
3. Parking in front of Funeral Home (Agency Meeting)
4. Enhanced crossing at 1st St West
(Aurora Safe Routes to School Plan)
5. Parallel parking in downtown Aurora (General Public)
6. 8-foot parking stalls became 10–12-foot (TBD)
parking stalls Downtown (General Public)
7. On-street Parking north of Central Ave (General Public)
8. Central Avenue Connection to Main St (General Public/Agency)
9. Main Street moved further East from A&W (General Public)
10. Mesabi Trail underpass (Mesabi Trail)
11. Enhanced crossing at 3rd Ave South (General Public)



PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

6

CSAH 100 Public Engagement Summary

Construction Project Updates

ST. LOUIS COUNTY CSAH 100 RECONSTRUCTION PROJECT:

- 1. Begin at a point ~0.25 mile east of MNTH 135 and end at 1st Avenue North.
- 2. Project year 2026.
- 3. Funding includes legislative earmark and CSAH funds.

CITY OF AURORA 1st AVE NORTH RECONSTRUCTION PROJECT:

- 1. Begin at the city park and end at CSAH 100.
- 2. Project year 2026.
- 3. Funding includes Local Road Improvement Program (LRIP) funds.

CITY OF AURORA 4TH STREET WEST CITY UTILITY PROJECT:

- 1. Begin at 1st Avenue North and end at CSAH 100.
- 2. Project year 2026.
- 3. Funding includes city utility funds.

MESABI TRAIL PROJECT:

- 1. Begin at CSAH 100 on CSAH 130 and end at the City of Hoyt Lakes.
- 2. Project year 2026.
- 3. Federal funding.



PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

7

Construction Project Updates

THREE ALTERNATIVES TO COMPLETE THE RECONSTRUCTION.

RAILROAD OVERPASS BRIDGE PROJECT:

- 1. Begin at 1st Avenue North and end at CSAH 110.
- 2. Project year unknown.
- 3. Funding would include RCE funding (federal) and CSAH funds.

RECONSTRUCTION PROJECT WITHOUT A BRIDGE:

- 1. Begin at 3rd Avenue South and end at CSAH 110.
- 2. Project year to be determined by City of Aurora water main project.
- 3. Funding would include CSAH and city utility funds.

NO BRIDGE FUNDING OBTAINED:

- 1. Complete the reconstruction of CSAH 100.
- 2. Project year unknown.
- 3. Funding would include CSAH funds.



PUBLIC INPUT MEETING #3 – Understanding The Outcomes
CSAH 100 (3rd Avenue N / Main Street)

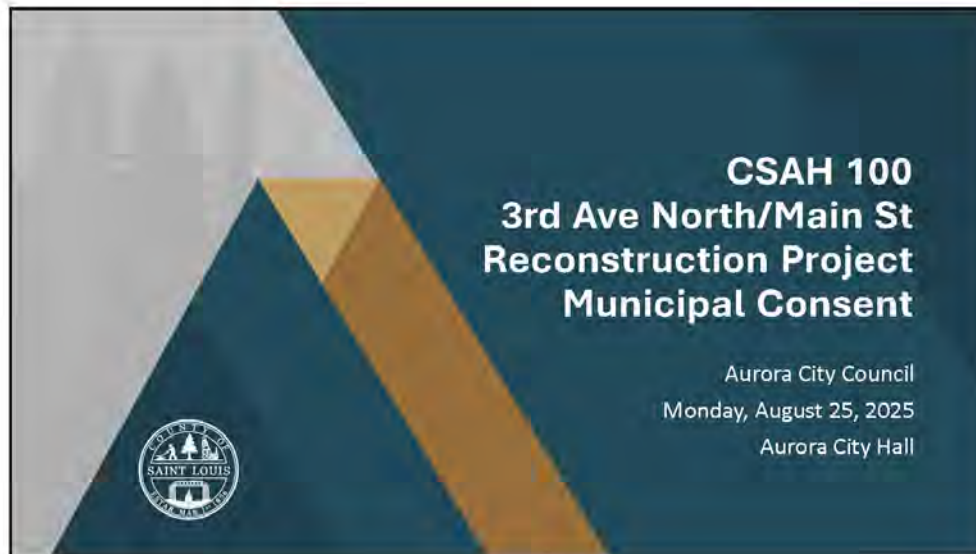
8

CSAH 100 Public Engagement Summary

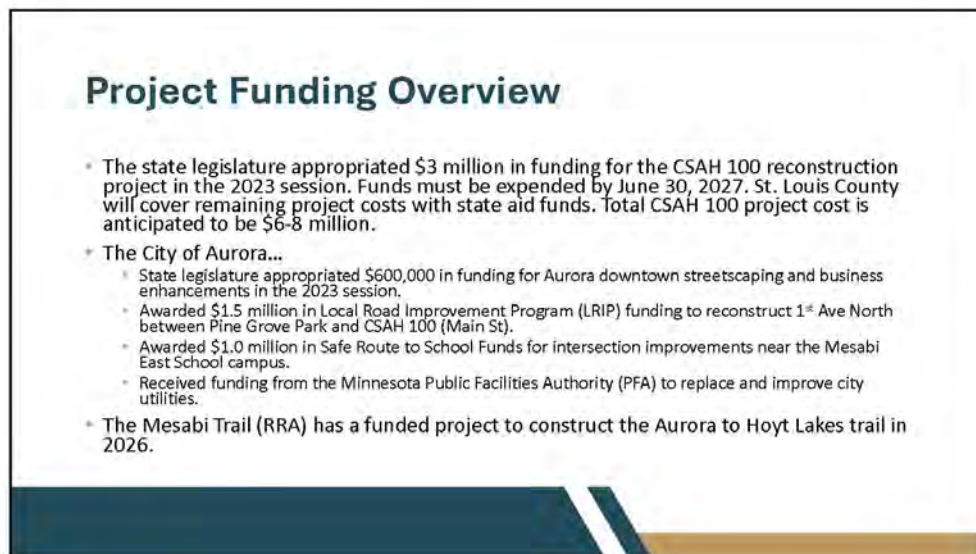


CSAH 100 Public Engagement Summary

Appendix H: Aurora City Council Presentation



1



2

CSAH 100 Public Engagement Summary

Cooperative Project Overview

- St. Louis County and the City of Aurora will develop a cooperative project that will be administered by St. Louis County.
 - CSAH 100 reconstruction
 - City LRIP
 - City SRTS
 - City utilities
- Project will be covered by one contract.
- Provides cost savings for both City of Aurora and St. Louis County.
- Improves construction impacts management by working with a single general contractor.

3

CSAH 100 Corridor Study Process

- St. Louis County led the CSAH 100 Corridor Study to develop the recommended layout of this corridor which will be constructed in the 2026 construction project.
- This was an intensive engagement process to receive input from three (3) stakeholder groups...
 - General public
 - Businesses
 - Agencies (St. Louis County, City of Aurora, Mesabi East Schools, Mesabi Trail, CN Railroad, Ranger Snowmobile/ATV Club, ARDC, Superior National Forest Scenic Byway Council)
- The stakeholder input to be received over three (3) waves of engagement.
 - 1st Wave: Listening Session, March 19, 2024
 - 2nd Wave: Presentation of Alternatives, July 9, 2024
 - 3rd Wave: Report Recommendation, September/October, 2024

4

CSAH 100 Public Engagement Summary

City Approval of the Preliminary Layout

- The Aurora City Council approved the preliminary layout that was generated from the CSAH 100 Corridor Study by city resolution number 2024-64, dated October 3, 2024.
- This was a commitment by the City to support the final design that incorporated the preliminary layout.
- *"The City Council of Aurora hereby approves of the preliminary layout for CSAH 100 (3rd Ave North/Main St) which shall form the basis of and be incorporated into the final design of CSAH 100."*
- *"The City Council of Aurora approves and supports the recommendation as presented in the Intersection Control Evaluation report to construct a mini-roundabout at the intersection of 3rd Ave North and Main St."*

5

Municipal Consent

- The State Aid process requires municipal consent to leverage the \$3 million in state legislative funding and programmatic state aid funding for reconstructing CSAH 100.
- Minnesota Statutes 162.02, Subd. 8.
- To successfully implement this project, agreement is needed by three entities...
 - Funding agency (State)
 - Road authority agency (County)
 - City agency (Aurora)

6

CSAH 100 Public Engagement Summary

Future Public Engagement

- Public information meeting scheduled for Thursday, November 13 at 6:00 pm.
 - Provide the public a detailed overview of the final project design.
- Construction information meeting to be scheduled in the spring of 2026.
 - Contractor will be present at the meeting to provide a detailed overview of project schedule, phases and impacts to properties.
- Both meetings will be held at the Aurora Community Center.

7

Discussion...

8

CSAH 100 Public Engagement Summary

Appendix I: City of Aurora Resolution No. 2024-64

CITY OF AURORA, MINNESOTA

Resolution No. 2024-64

RESOLUTION FOR APPROVAL OF THE PRELIMINARY LAYOUT OF CSAH 100 (3rd AVENUE NORTH/MAIN STREET)

WHEREAS, St. Louis County, in partnership with the City of Aurora, is leading a project to reconstruct CSAH 100 (3rd Avenue North/Main Street), beginning at a point approximately 0.25 mile east of MNTH 135 and ending at CSAH 110 (Hwy 110), located within the City of Aurora and is identified as SAP 069-700-018, CP 0100-556174; and

WHEREAS, Minnesota Statutes §162.02, Subd. 8 states no portion of the county state aid highway system lying within the corporate limits of any city shall be constructed, reconstructed, or improved nor the grade thereof changed without the prior approval of the plans by the governing body of such city and the approval shall be in the manner and form required by the commissioner; and

WHEREAS, St. Louis County led the CSAH 100 (3rd Avenue North/Main Street) Corridor Study which included engagement with key stakeholders including the general public to inform the recommendations for the preliminary layout; and

WHEREAS, representatives of St. Louis County and the City of Aurora finalized the preliminary layout which will form the basis of the final design and be constructed in 2026/2027; and

WHEREAS, St. Louis County anticipates not reconstructing CSAH 100 between 3rd Avenue South and Central Avenue in 2026/2027 but will leave this segment for a future reconstruction project as St. Louis County pursues funding for a railroad crossing bridge overpass; and

WHEREAS, St. Louis County commits to coordinate with the City of Aurora on the appropriate time to reconstruct the segment of CSAH 100 between 3rd Avenue South and Central Avenue depending on if funding is secured for the railroad crossing bridge overpass; and

WHEREAS, the preliminary layout of CSAH 100 (3rd Avenue North/Main Street) has been presented to the Aurora City Council, a copy of which was before the council; and

WHEREAS, St. Louis County will present the final plan for CSAH 100 (3rd Avenue North/Main Street) to the Aurora City Council to obtain final approval for the project to satisfy the requirements of Minnesota Statutes §162.02, Subd. 8.

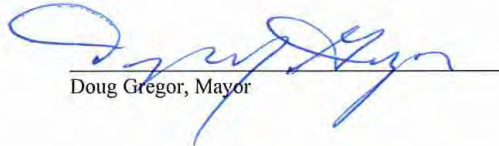
THEREFORE, BE IT RESOLVED, that the City Council of Aurora, Minnesota hereby approves of the preliminary layout for CSAH 100 (3rd Avenue North/Main Street) which shall form the basis of and be incorporated into the final design of CSAH 100 (3rd Avenue North/Main Street).

BE IT FURTHER RESOLVED, that the City Council of Aurora, Minnesota approves and supports the recommendation as presented in the Intersection Control Evaluation report to construct a mini-roundabout at the intersection of 3rd Avenue North and Main Street.

ADOPTED this 3rd day of October 2024.

CSAH 100 Public Engagement Summary

AYES: Gregor, Goette, Hess
NAYES: Hanson, Miklausich
ABSTAIN:
ABSENT:



Doug Gregor, Mayor

ATTEST:



Lucas Heikkila, City Administrator

CSAH 100 Public Engagement Summary

Appendix J: City of Aurora Resolution No. 2025-56

CITY OF AURORA, MINNESOTA

RESOLUTION NO. 2025-56

RESOLUTION FOR APPROVAL OF THE CSAH 100 (3rd AVENUE NORTH/MAIN STREET) RECONSTRUCTION PROJECT

WHEREAS, St. Louis County, in partnership with the City of Aurora, is leading a project to reconstruct CSAH 100 (3rd Avenue North/Main Street), beginning at a point approximately 0.25 mile east of MNTH 135 and ending at 1st Avenue North for a total length of 1.05 miles, located within the City of Aurora and is identified as CP 0100-556174, SAP 069-700-018; and

WHEREAS, Minnesota Statutes §162.02, Subd. 8 states no portion of the county state aid highway system lying within the corporate limits of any city shall be constructed, reconstructed, or improved nor the grade thereof changed without the prior approval of the plans by the governing body of such city and the approval shall be in the manner and form required by the commissioner; and

WHEREAS, St. Louis County led the CSAH 100 (3rd Avenue North/Main Street) Corridor Study which included engagement with key stakeholders including the general public to inform the recommendations for the preliminary layout; and

WHEREAS, the Aurora City Council approved the preliminary layout to be used as the basis for the final design by city resolution number 2024-64 dated October 3, 2024; and

WHEREAS, representatives of St. Louis County and the City of Aurora cooperatively led a process to prepare the final design of CSAH 100 (3rd Avenue North/Main Street) based on the approved preliminary layout; and

WHEREAS, the final project plan for the CSAH 100 (3rd Avenue North/Main Street) reconstruction project has been presented to the Aurora City Council, copies of which were before the council.

THEREFORE, BE IT RESOLVED, that the City Council of Aurora, Minnesota hereby approves of the CSAH 100 (3rd Avenue North/Main Street) reconstruction project and that this approval will serve as the municipal consent for these improvements to satisfy the requirements of Minnesota Statutes §162.02, Subd. 8.

BE IT FURTHER RESOLVED, that the City Council of Aurora, Minnesota authorizes the City of Aurora engineer to sign the title sheet of the plan identified as CP 0100-556174, SAP 069-700-018.

AYES: Gregor, Hanson, Hess

NAYS: Berquist, Miklausich

ABSENT:

CSAH 100 Public Engagement Summary

ADOPTED this 25th day of August 2025.



Doug Gregor, Mayor

ATTEST:


Jeff Jacobson, City Administrator

CSAH 100 Public Engagement Summary

Appendix K: City of Hoyt Lakes Letter



Municipal Building
206 Kennedy Memorial Drive
Hoyt Lakes, Minnesota 55750-1140

www.hoytlakes.com
e-mail: info@hoytlakes.com

Phone: (218) 225-2344
Fax: (218) 225-2485

Victor Lund
lundv@stlouiscountymn.gov
Eric Fallstrom
fallstrom@stlouiscountymn.gov
St. Louis County Public Works

April 8, 2024

Dear Mr. Lund and Mr. Fallstrom,

The City of Hoyt Lakes would like to comment on the CSAH 100 corridor study from MN Highway 135 to CSAH 110 through the City of Aurora.

The City of Hoyt Lakes has invested significant resources in the Laskin Industrial Park located on Colby Lake Road (CSAH 633), including the development of shovel-ready sites in conjunction with the Minnesota Department of Iron Range Resources and Rehabilitation and Minnesota Power.

During marketing activities of these industrial sites, we have received feedback on several occasions that the company is interested in building and establishing themselves in the City of Hoyt Lakes, but there continues to be one barrier – the logistics of shipping. They felt tractor-trailers were unable to successfully navigate the City of Aurora CSAH 100 corridor and requested a bypass be established. Unfortunately, the City was unsuccessful in lobbying the State of Minnesota and St. Louis County to establish an alternate route around the City of Aurora.

Additionally, there is significant need for another railroad crossing in the area. If there was an accident or other obstruction at the current location, Hoyt Lakes Emergency Services' alternate route to the northern part of Aurora is an additional 18 miles. The Hoyt Lakes Ambulance provides emergency medical response to the residents of Aurora and the Town of White.

We request, as part of this study, St. Louis County seriously consider an alternate route. One potential opportunity is Lane 55 (Rd. 371) to CSAH 100 (Rd. 341) with an additional railroad crossing.

Sincerely,

David Zins
Mayor

Deborah Kramar
Councilor

Cherie Grams
Councilor

Stuart Beauregard
Councilor

Brennan Scott
Councilor

CSAH 100 Public Engagement Summary

Appendix L: St. Louis County's Response to Hoyt Lake's Letter



Saint Louis County

Public Works Department • Richard H. Hansen Transportation & Public Works Complex
4787 Midway Road, Duluth, MN 55811 • Phone: (218) 625-3830

James T. Foldesi, P.E.
Public Works Director/
Highway Engineer

May 28, 2024

Hoyt Lakes City Council
Municipal Building
206 Kennedy Memorial Drive
Hoyt Lakes, MN 55750

Sent via email to blammii@hoytlakes.com

Re: CSAH 100 Route Through the City of Aurora

The Honorable Members of the Hoyt Lakes City Council,

The St. Louis County Public Works Department is in receipt of your letter dated April 8, 2024 regarding the routing of CSAH 100 (Main Street/3rd Avenue North) through the City of Aurora. As noted in your letter, St. Louis County is leading the [CSAH 100 Corridor Study](#) which includes a planning and preliminary engineering process to develop the preferred corridor layout of CSAH 100 through the City of Aurora including recommending improvements at the intersection of Main Street and 3rd Avenue North in downtown Aurora. The scope of this corridor study is limited to the existing CSAH 100 route and does not consider the development of alternative routes. The study seeks to balance the needs of vehicles, pedestrians and bicyclists, but does recognize a priority that the corridor must support truck traffic. The final recommendations are expected to be completed by October 2024 and will be incorporated into the design of the reconstruction project for this corridor in 2026.

Your letter suggests developing an alternative route to CSAH 100 to bypass the City of Aurora by utilizing the existing roadway alignments of CR 341 (Hwy 110) and CR 371 (Ln 55), which would include a new railroad crossing, to provide better transportation connectivity to the City of Hoyt Lakes and its industrial park. Figure 1 (enclosed) shows a map of this suggested alternative route. Your letter correctly noted that the detour for the railroad crossing on CSAH 100 is 18 miles if that crossing were blocked. The risk of a blocked crossing for a significant period is a concern shared by St. Louis County. In 2018, St. Louis County implemented a temporary railroad crossing bypass that utilized S 1st St West (behind the A&W Restaurant) for the CSAH 100 railroad crossing to replace the culverts and complete other improvements at the CSAH 100 railroad crossing. The easements for this temporary railroad crossing bypass are still in place which means that St. Louis County, in cooperation with the CN Railroad, could reestablish this temporary railroad crossing bypass if there was a long-term closure for the CSAH 100 railroad crossing.

CSAH 100 Public Engagement Summary

As part of the CSAH 100 Corridor Study, St. Louis County will be conducting a feasibility study for a bridge overpass at the railroad crossing on CSAH 100. This study will consider the surrounding topography, maximum roadway grades on the approaches to the bridge and connections to the roadways on either side of the bridge. If this study suggests a bridge overpass is feasible, St. Louis County will carry this concept forward to a preliminary layout and complete a benefit-cost analysis which will help prepare this proposal for a discretionary (competitive) grant funding application. St. Louis County believes a bridge overpass would achieve the following goals that are critical for the City of Aurora and surrounding communities.

1. Eliminate the risk of a blocked crossing and the precipitating consequences for emergency services.
2. Improve traffic safety through the elimination of an at-grade railroad crossing.
3. Eliminate traffic delay caused by trains occupying the crossing.
4. Improved operations for trucks and other special heavy hauling vehicles.
5. Provide an improved crossing for pedestrians, bicyclists, ATVs and snowmobiles.

Please consider St. Louis County's concerns about establishing an alternative route to CSAH 100 to bypass the City of Aurora.

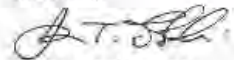
1. The establishment of a new railroad crossing does not align with the St. Louis County Railroad Crossing Safety Plan nor the Minnesota Department of Transportation (MnDOT) Rail Crossing Safety Action Plan. Railroad crossings present significant risks to the traveling public. St. Louis County's Railroad Crossing Safety Plan aims to reduce the total number of railroad crossings on the county road system. The establishment of a new railroad crossing must be supported and approved by the MnDOT Rail Office and the CN Railroad.
2. The establishment of a new railroad crossing would work against the effort to secure funding for a bridge overpass for the CSAH 100 railroad crossing because an immediately adjacent railroad crossing would be available for the transportation network in case of a blocked crossing. The current railroad crossing detour of 18 miles is a powerful argument for a funding application.
3. The existing CSAH 100 and CSAH 110 routes already provide a robust transportation connection to the cities of Aurora and Hoyt Lakes. An alternative route to bypass the City of Aurora would be a redundant route on the county road system. The construction and perpetual maintenance costs of such an alternative route could not be justified because of its redundant nature.
4. The cost to construct such an alternative route would be significant and not supported by St. Louis County's transportation program funding. Therefore, the funding to construct this alternative route would need to be sourced from a discretionary grant (federal and/or state) which would require engineering and economic justification. St. Louis County already has other transportation priorities for which it is seeking discretionary grant funding.
5. This alternative route would bypass the City of Aurora which likely would have a negative effect on the local economy of Aurora.
6. There are several examples in northern Minnesota of primary state trunk highways running through small communities like Aurora. The routing of CSAH 100 through Aurora is no different.

CSAH 100 Public Engagement Summary

In summary, St. Louis County believes the best path forward is to focus on improving the existing CSAH 100 corridor. We believe this is the most cost-effective approach to improving the regional transportation system and supporting future residential, retail and industrial development. If you have any additional questions or concerns, please contact Victor Lund, Traffic Engineer, at 218-625-3873 or lundv@stlouiscountymn.gov.

Thank you for your consideration.

Sincerely,

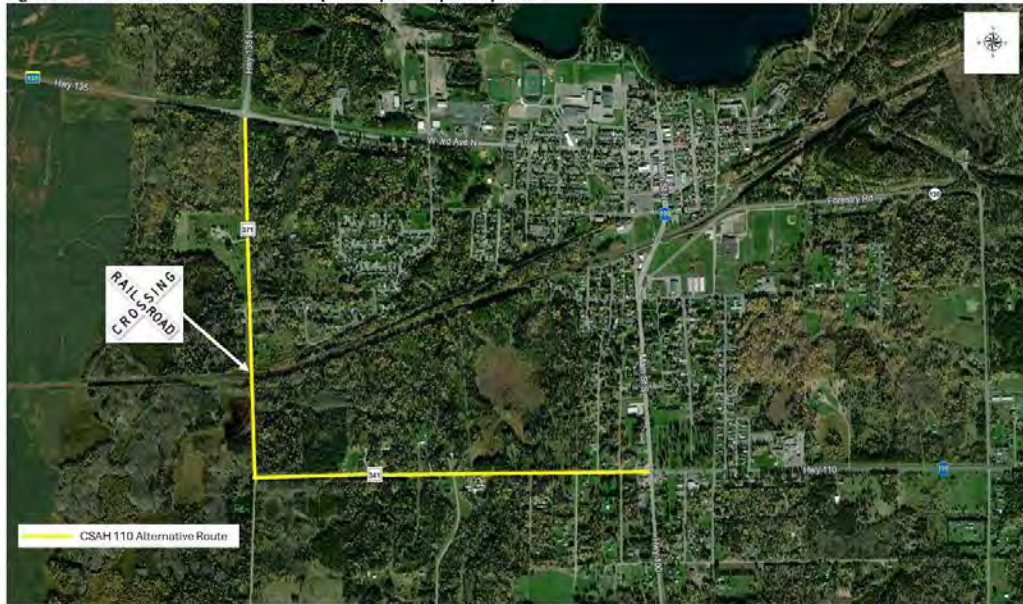


James T. Foldes, PE
Public Works Director/Highway Engineer
St. Louis County

Cc:
Commissioner Paul McDonald
Matt Hemmilla, St. Louis County Deputy Public Works Director
Victor Lund, St. Louis County Traffic Engineer
Eric Fallstrom, St. Louis County North Resident Engineer

CSAH 100 Public Engagement Summary

Figure 1. Alternative Route to CSAH 100 Proposed by the City of Hoyt Lakes



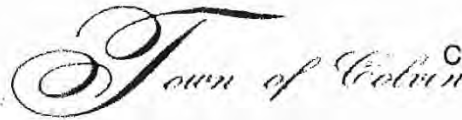
CSAH 100 Public Engagement Summary

Appendix M: Colvin Township Letter

RECEIVED

AUG 15 2024

CITY OF AURORA



2579 Vermilion Tr.
Makinen, MN 55763
Cynthia Lobb, Clerk

August 14, 2024
Victor Lund
St. Louis County Public Works
4787 Midway Road
Duluth Minnesota 55811

Mr. Victor Lund:

At our regular monthly meeting on August 12, 2024, the Colvin Town Board reviewed plans for the highway reconstruction project through the city of Aurora. After considerable discussion, Supervisor Lobb moved to approve the attached letter - seconded by Supervisor Hirsch - to voice our opposition for the proposed railroad crossing bridge as well as the proposed Main Street intersection roundabout, and to send it to various city and county officials.

This motion passed with the following tally:

Ayes 3

Nays 0

Colvin Township Clerk - Cynthia Lobb

A handwritten signature of Cynthia Lobb in cursive script, written over a horizontal line.

CSAH 100 Public Engagement Summary

August 14, 2024
Victor Lund
St. Louis County Public Works
4787 Midway Road
Duluth, Minnesota 55811

Mr. Victor Lund:

We are taking this opportunity to comment on St. Louis County's proposed highway CSAH 100 reconstruction project through the city of Aurora.

We are puzzled, first of all, why Colvin Township was not included among the arbitrary list of nearby local governments of Aurora, Hoyt Lakes, Biwabik, Babbitt, White Township, and Biwabik Township for St. Louis County seeking approval for the Railroad Bridge Project, as presented at the joint Aurora City Council / St. Louis County meeting on August 12, 2024. We are more relevant to Aurora than Biwabik Township, which is closer in proximity to the City of Biwabik, and even to Gilbert, and Colvin Township is way closer to Aurora than Babbitt. Aurora is the closest city for our citizens whose children attend school there, who regularly shop and dine there, visit friends and relatives, utilize clinic and hospital services, and conduct other business.

We also bring to your attention that some of the comments made by the County Engineer were misleading, and in some cases were factually incorrect. The railroad study referenced that stated the Aurora railroad crossing was the "worst" one gave the impression that it must be terribly unsafe. This cannot be true as there have been no accidents there. If the context was that it was the roughest one - as opposed to being a smooth crossing - this was not delineated. If this were the case, simply leveling the highway grade would solve the problem. Another point that there was one fatality at this crossing is incorrect. The teenager killed some years back was not at this crossing, but rather several blocks East on a trail the kids had through the underbrush that crossed the tracks. At every step of the way this crossing has been portrayed by the County Engineer as unsafe, dangerous and a safety hazard. The history of this crossing does not support this.

As far as a derailment here causing irreparable safety scenarios, when has that happened? It was said that a blocked crossing would cause an 18 or 25 mile detour. However, fire and police services are available on either the north and south side of this rail crossing by Mutual Aid Agreements between area municipalities such as the cities of Hoyt Lakes and Biwabik, and White, Colvin, and Biwabik Townships and the Lakeland Fire Department. As far as medical services are concerned - depending on which side of this rail crossing - either Aurora or Virginia has medical facilities readily available, and any serious emergency is routinely handled by Life Flight transportation. All of the concern of the 'safety' of this railroad crossing in Aurora is mostly over-rated hyperbole.

Railroad Authorities have specialized contractors on standby to respond immediately to derailment events and, in an emergency, Lakehead Constructors (only a half mile away) has a fleet of heavy loaders and cranes that could clear any obstructions within hours.

We think this \$5 million bridge project is a waste of money and there are no serious safety concerns there. Therefore the Colvin Town Board opposes this railroad bridge project. If there is excess bridge money available, why doesn't St. Louis County build a bridge going to McKinley? There is only ONE road leading to McKinley and that road goes across railroad tracks. There is no 20 mile detour, no 100 mile detour - no detour at all. If there is a derailment there, no traffic is going anywhere, in or out - emergency or otherwise. Notably, we have heard no concerns raised by either the citizens nor the City Council of McKinley or St. Louis County. A railroad bridge to access this city would also be out in the country, instead of in the middle of town, where neither businesses nor residents would be impacted by a bridge.

CSAH 100 Public Engagement Summary

It is also noteworthy that this railroad bridge was not even included in the questionnaire circulated earlier by St. Louis County. It wasn't even mentioned as a possibility until the meeting on July 9, 2024. Now the County Engineer wants to fast-track the Aurora City Council to decide this within the next week whether to approve this. Where are the citizens? Where is the input from the people? Where are comments from businesses? Why should the City Council be held hostage to a woefully inadequate time-line that allows for no public input and that was caused by faulty planning by the County Engineer? This is being shoved through without any input but that of the County Engineer.

Another aspect of this Hwy 100 project is the Main Street / 3rd Ave N intersection. This is also billed as a safety issue. Once again there have been no fatal or serious crashes here, and less than a handful of minor scrapes. Given the recent rate of crashes on roundabouts in Minnesota (including one at Cloquet just 2 weeks ago) roundabouts seem to be doing worse than 4-way stops. We keep hearing, from the County Engineer, the danger of this intersection because of some motorists rolling through it at a couple miles an hour. What about the 4-way stop at the south end of Main Street by the Holiday Station? Is there any less rolling stops there than on the center Main Street intersection? Or at the Kennedy Memorial Drive / Suffolk intersection and Kennedy Memorial Drive / Kent intersection at Hoyt Lakes, or at the Makinen Highway 4 / Highway 16 intersection, the Highway 135 / Highway 21 intersection in Embarrass, or a 100 other 4-way stops across the county? Do all these intersections need a roundabout to be 'safe'? Rolling stops undoubtedly occur just as frequently at these intersections, and some of them have logged serious or fatal crashes on them. Why is the only 4-way stop - with slow speed 30 mph city traffic, at that - with a near perfect safety record, in the middle of main street at Aurora so unsafe that it requires a roundabout? If it's not broke, why should it need fixing? The safety issue of this intersection is nonexistent.

Another point made is that a roundabout here would speed up and handle more traffic. This doesn't make sense either. For many, many years 1400 LTV miners (and their families) utilized this 4-way stop daily, in addition to all the other regular traffic as well. There was no problem with traffic flow then, not now, nor should there be any in the future. This roundabout is only going to be confusing and another waste of money. There is no safety issue there nor a traffic flow problem. If there is (and maybe there isn't) a small speeding problem on the far west end of town, a roundabout a half mile away on Main Street isn't going to help one bit. Since even the respondents to the St. Louis County questionnaire rejected this roundabout by a 2 to 1 margin, why does the County Engineer continue to aggressively pursue this questionable and unpopular option? Therefore, the Colvin Township Board also opposes this roundabout and recommends this plan should be scrapped.

Many citizens have voiced their preference to resurface the roadway and sidewalks for this Aurora highway project but to leave the configurations of driving lanes, sidewalks, intersections, and crossings JUST AS THEY ARE! The exotic plans presented to reconfigure all these items are simply an expensive solution to a created problem that doesn't exist.

Thank you.

Colvin Township Board

Clerk, Cynthia Lobb

Cynthia Lobb



CSAH 100 Public Engagement Summary

Appendix N: Mesabi Tribune Aurora Article

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabitrribune.com

https://www.mesabitrribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

FEATURED

Officials support roundabout, some Aurora residents do not

By LINDA TYSEN MESABI TRIBUNE
Dec 14, 2024



Urban Mini-Roundabout

This drawing shows a mini-roundabout like the one planned in Aurora.

AURORA—By definition, a “roundabout is a circular intersection where traffic flows in one direction around a central island” designed to make for smoother traffic flow and fewer vehicle crashes.

A mini roundabout is in the planning for Aurora's main street, and the plan has met with strong opposition from several residents, some of which expressed their views at the Oct. 3 Aurora City Council meeting. Here are some comments from the official meeting minutes:

https://www.mesabitrribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

1/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabitrune.com

Butch Ceglar spoke against support of a roundabout. He commented that the public survey showed the public is not in favor of it and they represent the people. Also, Main Street is safe as it is, and we do not need smaller parking spaces. He would like the sidewalks left alone.

Pete Boorman spoke against the support of a roundabout. He feels these are the safest streets around where you can get out of your car and not worry about traffic.

Mike Jofs, a retired State Trooper of 33 years, was present to speak in favor of the roundabout. He stated they are safer, move traffic quicker and more efficiently, and the narrower streets from wider sidewalks would slow traffic.

Norma Jean Jofs, a former councilor and a current business owner, is supportive of the roundabout as it will bring safety to the intersection, people will pay more attention, they will stop texting, and it will increase traffic flow.

Cheryl Witton spoke against the roundabout. She feels the traffic in town does not warrant one. She also stated that studies show that they are not safe for pedestrians as well and wants to be on record that she is vocally opposed to this intersection.

The following were asked by email questions about the roundabout project—Mayor Doug Gregor, City Administrator Lucas Heikkila and St. Louis County Traffic Engineer Victor Lund.

Here are a portion of their responses:

Mayor Doug Gregor

How did the idea of a roundabout in Aurora originate?

The roundabout issue arose in the context of preliminary planning by the St. Louis County engineering department for a complete rebuild of those portions of County State Aide Highway Number 100 (“CSAH 100”) that run through Aurora—locally known as West Third Avenue West and Main Street. Construction

https://www.mesabitrune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

2/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

of that Project is scheduled to begin in 2026.

The County had earmarked \$3 million for the construction costs and an additional \$3 million of State funds were appropriated for the Project by the Legislature in 2022. An additional \$600,000 of State funds were appropriated for associated corridor beautification work.

Although this roadway project is a County project, the County Engineers' department has taken a number of steps under a corridor study plan to inform the community and roadway users of the planned project and to solicit their comments on potential roadway features. At least 3 community meetings, several public displays of the evolving plans, and an on-line survey were hosted by the County to get community input. Among the many potential features along the Project corridor route, the possibility of a mini-roundabout roadway structure at the intersection of Third Avenue and Main Street was offered as a preferred engineering option for traffic management at that intersection. That proposal generated strong opposition from a significant number of local residents.

The County Engineer and his staff presented a great deal of data and information about the utility and practical experiences of such traffic control features in other communities around the state. After hearing all of the engineering evidence and the testimony of local supporters and opponents of the various engineering features being planned for the Project, the City Council at a community meeting held in the Community Center on the evening of October 3, voted 3-2 to approve the County's preliminary plans for the CSAH 100 Project—including a mini-roundabout traffic control feature at the above-described intersection. The County Engineering Department staff is now working on refining the preliminary plans into final plans for the 2026 Project.

Where would it be located?

The mini roundabout would be located at the intersection of West Third Avenue West and Main Street



https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

3/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

How would it benefit the city?

Traffic moving through the intersection is currently controlled by a 4-way stop signed intersection. About 4500 to 5000 vehicles on average pass through the intersection each day. In preparation for the Project, the County videotaped and then analyzed data from the traffic movements on a typical day. Of the 4617 vehicles tracked passing that day through the intersection, only 46% came to a complete stop as required by law. Despite the opposition to the proposed roundabout by several hundred residents, the actual users of the roadway seemed to have “voted with their brake-pedals” to allow traffic to move through the intersection without having to stop. The lawful flow of traffic through the intersection would be improved to the benefit of all of the roadway users.

Have you received opposition to the proposal, and how have you and the councilors addressed that?

As noted above, there were several community meetings, an on-line survey, and several letters received by the City team and Council—most opposing but also supportive comments. An opportunity was provided for everyone who wanted to comment to the Council to do so. After weighing all of those factors, the Council voted 3-2 On October 3 to approve the County’s preliminary plans for the Project—including the mini-roundabout. Speaking just for myself, I voted in favor of those proposed preliminary Project plans because I was convinced that they provided for the best engineered and safest intersection traffic management option.

Costs involved?

The cost difference between a mini-roundabout and an all-stop control system was projected to be less than \$200,000 out of a \$6-9 million Project budget. For comparison, the County Engineer estimated that the cost of a traffic signal system would be approx. \$700,000 to \$900,000 greater than an all-way stop control or mini roundabout.



https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

4/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

Has the council considered a less costly alternative than a roundabout, e.g., traffic lights?

As noted above, a traffic control signal system is the most expensive alternative that was considered in the Preliminary Project plan design meetings.

How would it affect businesses?

A few business owners of intersection-adjacent businesses expressed opposition to the elimination of 2-4 parking spaces in each intersection corner area. Existing Minnesota traffic laws already prevent the parking of vehicles within 30 feet of a stop sign. Some of the perceived “loss” of parking spaces was due to some confusion about how close vehicles were entitled under the applicable laws to park near the intersection. —that is, not within the 30-foot mandated buffer zone. The County conducted studies on the current actual utilization of parking spaces near that intersection area. The evidence collected suggested that even after the construction of a mini-roundabout at the intersection, there would be a surplus of 18 parking spaces on the west leg of the intersecting roadway and 9 parking spaces on the south leg—these available spaces would be above and beyond the needs of the observed maximum parking utilization.

—

Lucas Heikkila

Residents have asked about their taxes and if they would be affected by this project. This is a State Aid Highway and since it is designated as such, it is eligible for, and funded by three pools of funds:

1. Auto Parts Sales Tax
2. Vehicle Sales Tax/License Tab Sales Tax
3. Gasoline Tax

These funds are generated through the entire state and designated for road projects like this one. It has no bearing on property tax dollars. Residents will not see their rates go up from any of this work. 

https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

5/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

I would add that at this point the design is in full swing, and the project is moving forward at this point. Minor changes can be made in the design such as sidewalk depths, driveway locations, light pole placement, but the core concepts have been authorized by both the City of Aurora and St Louis County.

—

Victor Lund

What are reasons for the roundabout? Advantages? Disadvantages?

As background, St. Louis County received \$3,000,000 in appropriation funding from the Minnesota Legislature in the 2023 session to be used for the reconstruction of CSAH 100 (3rd Ave North / Main St). This project is programmed for 2026 and will begin approximately 0.25 mile east of MNTH 135 and end at 1st Ave North in downtown Aurora. These legislative funds expire on June 30, 2027 so we have to move quickly to utilize them. Due to coordination with a potential railroad crossing overpass bridge and a future Aurora to Hoyt Lakes water line project, the remainder of CSAH 100 (Main St), beginning at 1st Ave North and ending at CSAH 110 (Hwy 110) is planned for a couple of years later, possibly 2028 or 2029. At the end of the day, St. Louis County will complete the reconstruction of CSAH 100 (Main St) to CSAH 110 (Hwy 110). To prepare for this reconstruction project, St. Louis County, in cooperation with the City of Aurora, led a CSAH 100 Corridor Study to develop the new layout for CSAH 100 that will be implemented with these future reconstruction projects.

You can read more about this CSAH 100 Corridor Study at <https://engage.stlouiscountymn.gov/csa-100-corridor-study>. It is important that we get this corridor layout right because the reconstruction project is intended to have a service life of greater than 30 years. What we construct, we will live with for a long time. This means we will be making decisions about this transportation corridor that will be used by drivers/pedestrians/bicyclists that haven't been born yet.



https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

6/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

As part of the CSAH 100 Corridor Study, St. Louis County completed an Intersection Control Evaluation (ICE) for the intersection of Main St (CSAH 100) and 3rd Ave North (CSAH 100) for the purpose to determine the long-term control for this intersection. The ICE is a comprehensive process that considers the existing conditions (e.g. traffic volumes, crash history and land use), forecasts future conditions (e.g. future traffic volumes and users), develops and analyzes a list of intersection control alternatives, and finishes with a recommendation. You can read more about the ICE process at <https://www.dot.state.mn.us/trafficeng/safety/ice/index.html>. For the case of the Main St at 3rd Ave North ICE, it considered an all-way stop control, traffic signal control and a mini-roundabout.

The traffic signal does not meet the prescribed warrants in the Minnesota Manual on Uniform Traffic Control Devices and therefore was dismissed from further consideration thus leaving the all-way stop and mini-roundabout as the final alternatives that were considered. The outcome of the ICE recommended a mini roundabout as the long-term traffic control for this intersection. There are several reasons why a mini-roundabout has distinct advantages over the all-way stop control in this case. First, St. Louis County completed a stop sign compliance study and found that 52 to 63 percent of drivers are violating the existing stop signs by rolling through the intersection without stopping. This is an illegal behavior because stop signs require drivers to come to a complete stop. This behavior is likely due to the fact that there are so few conflicts within the intersection that drivers could legitimately roll through the intersection 9/10 times and never encounter a conflicting vehicle, but this doesn't justify breaking the law.

That is why we have yield signs in our toolbox of intersection control signs. A mini-roundabout is controlled by yield signs thus allowing drivers to roll through the intersection without stopping if there are no conflicting vehicles or pedestrians. It is expected that drivers will be able to roll through the mini-roundabout most of the time because of the rarity of conflicting vehicles and pedestrians. Second, a mini-roundabout will better accommodate trucks because conflicting vehicles will be "pulled out of the way" by going around the roundabout as a truck is entering the intersection. Third, pedestrian safety is improved at a mini-roundabout compared to an all-way stop control because pedestrians cross in advance of the intersection instead of within the intersection footprint. Roundabouts also provide pedestrians a refuge island when crossing the street. Fourth, a mini-roundabout can serve more traffic per unit of time than an all-way stop control. This is important considering the potential opening of the NewRange Copper Nickel



https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

7/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

Mine that would likely generate a couple hundred permanent jobs and needs for regular service trucks where most of these trips likely would be routed through Aurora. A mini-roundabout would be able to “absorb” more traffic than an all-way stop control.

Is a roundabout feasible given the size of the city?

The question of intersection control is not related to the size of a city. For example, St. Louis County has implemented roundabouts at rural intersections that are located outside of city limits such as the intersection of MNTH 37 and CSAH 7 (Hwy 7) and US 2/MNTH 194 and CSAH 46 (Saginaw Rd). Rather, the question of intersection control is best answered by the needs of the specific intersection. For the case of the intersection of Main St and 3rd Ave North, a major concern that we observed is the high rate of stop sign violations. I noted to the city council earlier this year that if an all-way stop control was perpetuated, there would have to be a discussion about increased enforcement of this intersection. The observation of 52 to 63 percent of drivers violation the stop signs is not an acceptable long-term strategy. This is why the mini-roundabout shines brighter because it allows drivers to move through the intersection without having to artificially stop when there are no conflicts (other vehicles or pedestrians).

—

Andrea Zupancich, Broker/owner zUp North Realty, is a building owner opposes Aurora mini-roundabout.

She said:

“I sent the following email to the Mayor and City Council of Aurora. I strongly oppose this mini-roundabout.

“I believe it is a travesty that the council and the county is not listening to the owners of the buildings that will directly impact or look at the big picture of what is and may be happening.

“What is the ultimate goal? Drive business away from Main Street Aurora? Reduce property value? If it's a safety issue, I'd like to see those stats vs. people assuming no one needs parking for their commercial business and people aren't obeying traffic signs. That seems like a heck of a lot of money to spend for —

https://www.mesabtribune.com/news/officials-support-roundabout-some-aurora-residents-do-not/article_6b67ad38-b960-11ef-bf5d-fb07697f3540.html

8/9

CSAH 100 Public Engagement Summary

2/11/26, 3:47 PM

Officials support roundabout, some Aurora residents do not | News | mesabtribune.com

those reasons. I can think of other ways to use that money. The tax value should go down then since it's not conducive to business needs. How would you or any of your readers appreciate it if 60% of their driveways were just taken away and not replaced, viably. The County needs municipal consent to do this."

[Learn more about your privacy options](#)

CSAH 100 Public Engagement Summary

Appendix O: Grade Separation Feasibility Study

KLJ Engineering
2750 Blue Water Road, Suite 100
Eagan, MN 55121-1661
kljeng.com



Memorandum

Date: 9/18/2024
To: Victor Lund, PE, PTOE - St Louis County
From: Adam McGill, PE
RE: CSAH 100 (Main Street) Railroad Crossing (DOT #252305T) Grade Separation Feasibility Study

Introduction

This memorandum documents the feasibility of constructing a grade separated crossing of the Canadian National (CN) railroad tracks (DOT #252305T) on CSAH 100 (Main Street) in Aurora, MN.

Existing Conditions Context

CSAH 100 (Main Street) in Aurora, MN crosses a single-track CN railroad with an existing at-grade railroad crossing (DOT #252305T), as a two-lane highway with curb and gutter and a posted speed of 30 mph (see location map on the next page). The railroad crossing traffic control is accomplished with two quad gate active warning devices across the approaching roadway driving lanes. The crossing includes a 6-foot-wide sidewalk on both the east and west sides of the roadway without active crossing controls. This railroad crossing is the only connection between Aurora north and south of the CN railroad and is used by pedestrians, bicyclists, ATVs, and snowmobiles, as well as personal, commercial, and emergency vehicles. There are 12 total trains per day traveling at 35 mph through this crossing. CSAH 100 (Main Street) serves as the primary route to access the City of Hoyt Lakes and is a primary truck route that services this region.

1. If this railroad crossing were closed due to an emergency condition (e.g. train derailment), the minimum detour length is 18.8 miles which includes gravel surfaced roads and township roads owned/maintained by Biwabik and White Townships. The minimum detour that exclusively includes paved roads that support truck traffic is 29.1 miles in length. The length of these detours was measured by using common origin and destination points on the immediate north and south side of the railroad crossing.
2. CSAH 100 is a regionally significant route that serves the cities of Aurora and Hoyt Lakes, as well as the surrounding townships and communities. The primary connection for the City of Hoyt Lakes to the rest of the Iron Range is CSAH 100.
3. A grade separation will improve safety for CSAH 100 traffic (vehicles, trucks, pedestrians, bicyclists, ATVs and snowmobiles) by eliminating the opportunity for a crash involving a train and vehicle. According to the FRA Highway-Rail Grade Crossing Accident Prediction System for St. Louis County, Minnesota, this railroad crossing on CSAH 100 (USDOT #252305T) ranks 45 out of 226 crossings which places this railroad crossing in the top 20 percent by risk for a future crash involving a train and vehicle. This ranking is including the fact that this is an active crossing controlled by gates and signals.

CSAH 100 Public Engagement Summary



4. A grade separation will ensure access for emergency services and the Essentia Northern Pines Hospital which includes a staffed emergency room. The Aurora fire hall is located on the north side of the railroad crossing and the Aurora hospital is located on the south side of the railroad crossing. The East Range EMS is located in the City of Hoyt Lakes which means access to the north side of Aurora would be blocked if the railroad crossing is blocked. Approximately two-thirds of Aurora's population lives on the north side of the railroad crossing.
5. A grade separation will improve CSAH 100 for trucks and freight. CSAH 100 will serve as the future primary access to the NewRange Copper Nickel mine which will likely include trucks transporting hazardous materials. Additionally, CSAH 100 serves as the primary route to access the City of Hoyt Lakes' Laskin Industrial Park located on CR 633.
6. A grade separation will ensure ATVs and snowmobiles can continue to safely cross the railroad track. ATVs and snowmobiles currently utilize this railroad crossing through an unplanned routing network. The CN Railroad has expressed concerns about ATVs and snowmobiles crossing the railroad track.
7. The Mesabi Trail will be extended from the City of Aurora to the City of Hoyt Lakes in 2026 and routed over this railroad crossing.
8. The St. Louis County Railroad Crossing Safety Plan prioritizes this railroad crossing for a grade separation.

Figure 1 – Study Area and St Louis County Railroad Crossing Inventory Summary

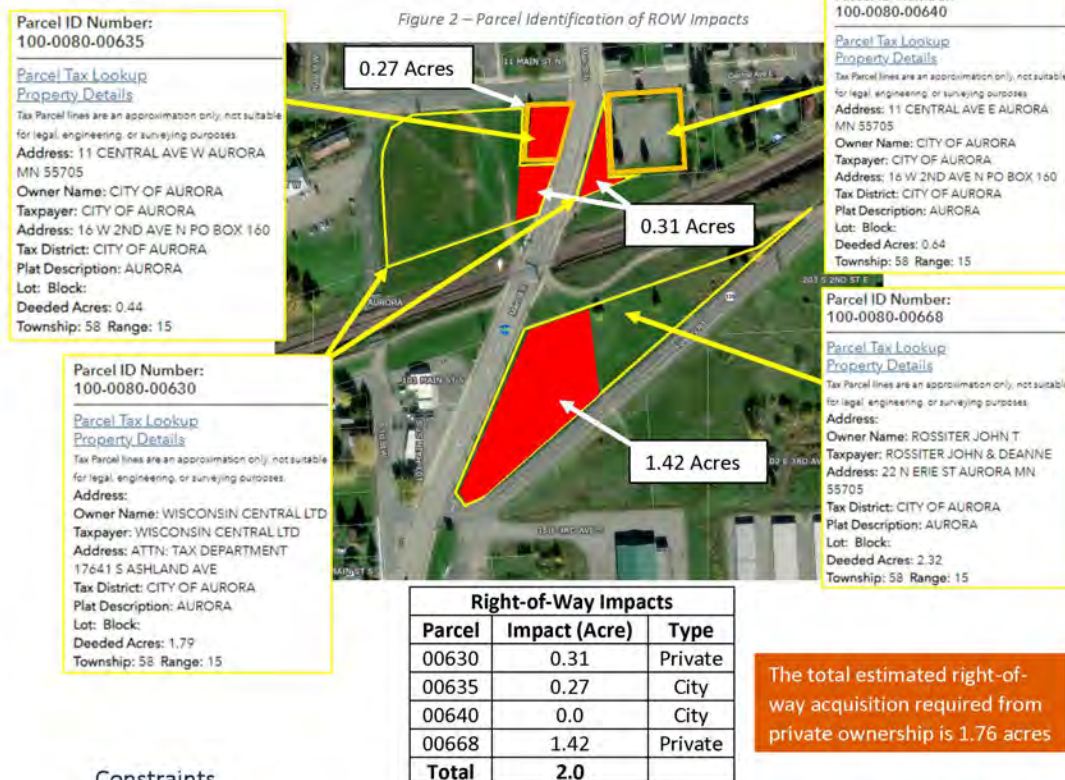


CSAH 100 Public Engagement Summary



Right-Way Impacts

The City of Aurora owns two parcels north of the CN railroad, adjacent to the alignment. Private parcels with anticipated impacts from a grade separation include property owned by Wisconsin Central LTD and John Rossiter.



Constraints

The following constraints were used in this feasibility study to provide criteria with which a feasible corridor would have to function.

- Do not impact building structures.
- Avoid impacts to the pickleball court.
- Avoid Impacts to A&W and the Car Wash properties southwest of the crossing.
- Provide consolidated access to A&W and the Car Wash.
- Provide a 14' ATV/Snowmobile trail on the bridge deck.
- Provide a 10' Shared Use Path on the bridge deck.
- Per Minnesota Administrative Rules 8820.9956 "Minimum Vertical Clearances for Underpasses" 22 feet of vertical clearance is needed above the rail tracks.
- 35 mph design speed.
- 5% maximum approaching grade. The AASHTO Policy on Geometric Design of Highways and Streets, Table 7-4a, Maximum Grades for Arterials in Urban Areas provides a maximum grade of 7% for level terrain and a design speed of 35 mph.

CSAH 100 Public Engagement Summary



Typical Section

The typical section utilized in the feasibility study included two 12-foot vehicular travel lanes with 4-foot shoulders, a 10-foot shared use path west of the roadway and a 14-foot ATV/snowmobile (OHV) trail separated by a barrier east of the roadway (see below). The 14-foot OHV lane is intended to accommodate a snowmobile trail groomer.

Figure 3 – CSAH 100 Bridge Cross Section

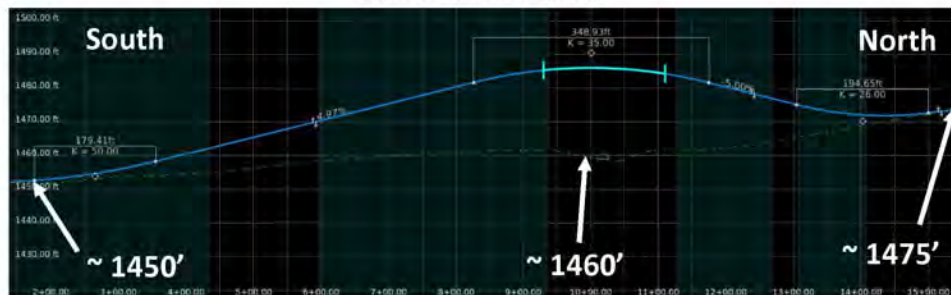


Profile View

The proposed plan view layout shown on page 5 accomplishes the maximum 5% approaching grade to the railroad separation while providing a 25-foot grade difference between the top of the tracks and the top of the bridge deck. Assuming the bridge deck and beam section will be less than 3 feet thick, as a conservative estimate, there will be greater than a 22-foot separation provided (see below).

The left side of the profile represents the approach south of the railroad crossing, and the right side represents the north approach near downtown Aurora. Please note that the natural elevation increase from south to north lends itself well to accommodate a shorter tie-in north of the railroad, minimizing impacts to the developed area north of Central Avenue.

Figure 4 – CSAH 100 Profile View



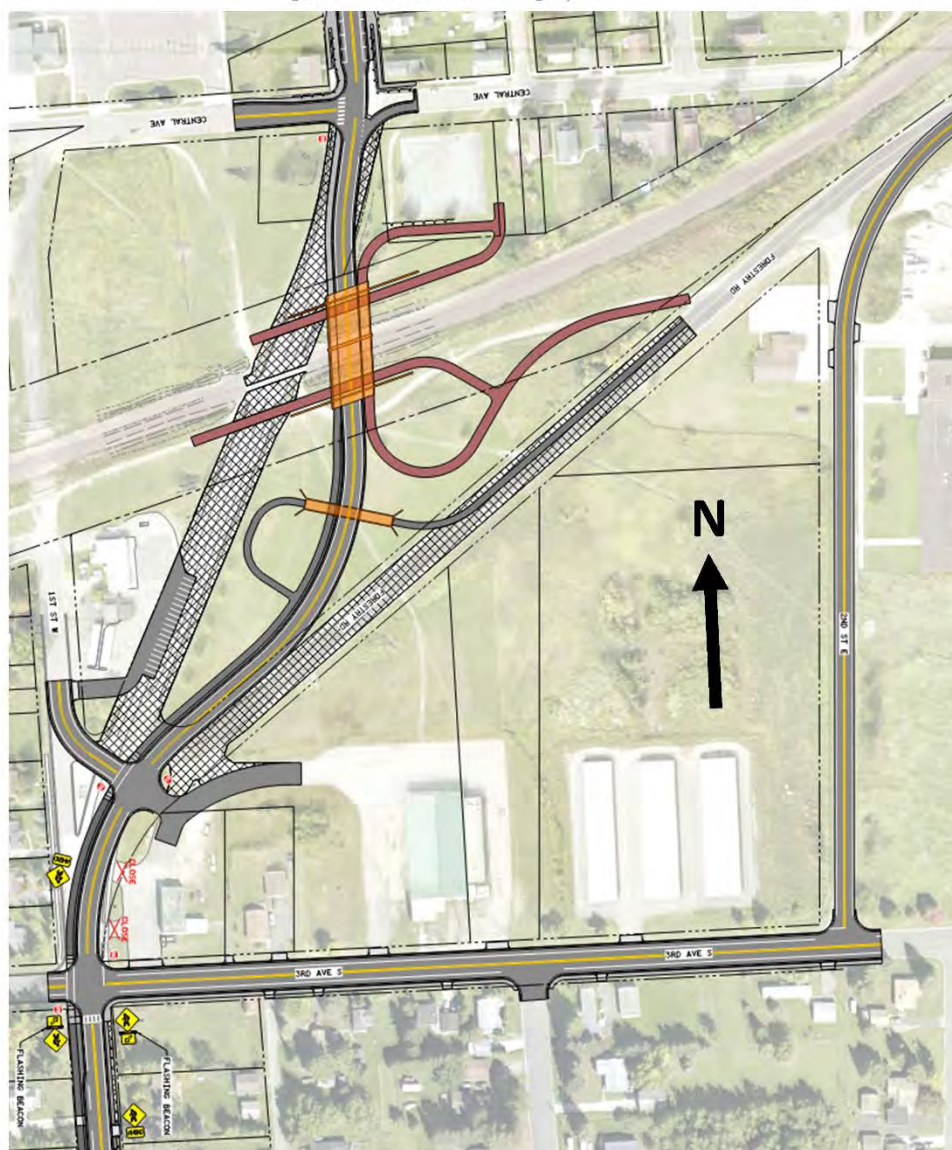
CSAH 100 Public Engagement Summary



Plan View Layout

The preliminary layout accommodates the proposed typical section and all the constraints previously identified. As shown below, the east leg of Central Avenue will be disconnected at Main Street and Forestry Road (CSAH 130) and would be rerouted along 2nd Street East to 3rd Avenue South. The reroute of CSAH 130 (Forestry Road) would require St. Louis County to acquire ownership of 2nd Street East and a portion of 3rd Avenue South.

Figure 5 – CSAH 100 Grade Crossing Layout



CSAH 100 Public Engagement Summary



Perspective Layout

The perspective view allows for a more intuitive visual of the footprint and impacts of the proposed grade separation.



Bridge Design Assumptions

The following assumptions were made in the bridge design to limit footprint impacts and provide a continuous transportation network that was impacted by the railroad grade separation.

- Utilize retaining walls north of Central Avenue to eliminate impacts to building structures and ROW.
- Forestry Road will be rerouted along 2nd Street East and 3rd Avenue South to CSAH 100 (Main Street).
- Pavement, aggregate base, and lighting will be approximately the same between the existing at-grade crossing and the grade separation crossing and will not be included in the cost analysis assuming a reconstruct as the base condition.
- Shall meet the minimum vertical and horizontal clearances required by the railroad. Comply with railroad requirements and dimensions for protection walls, fencing, bridge barrier walls, aerial utilities, pier walls, and routing of the ATV and Snowmobile trails.

Benefit-Cost Ratio:

A 30-year Benefit-Cost Analysis (BCA) was completed to justify implementing the grade separation crossing over the existing at-grade crossing. The BCA compared various costs and benefits between keeping the existing at-grade crossing (named the No-Build Scenario) and constructing the grade separated crossing (named the Build Scenario). The BCA does not include any improvements that would be included in the CSAH 100 project (i.e., road pavement, lighting, aggregate base). The BCA included the following breakdown of costs and benefits:

- Crash cost savings of build scenario based on 10 years of crash history.
- Vehicle operating costs from railroad maintenance closure detour.
- Travel time costs from railroad maintenance closure detour.
- Travel time costs from current at-grade railroad crossing.

CSAH 100 Public Engagement Summary



- Emissions cost from railroad crossing.
- Non-motorized amenities benefit from multimodal path.
- Construction and right-of-way costs.
- Remaining value of facilities (residual value).
- Maintenance costs.

Key assumptions used to calculate costs and benefits for the BCA are in **Table 1**. **Table 2** shows the estimated quantities for the Build Scenario.

Table 1: Benefit-Cost Analysis Traffic Assumptions

Variable	Value
Railroad crossings (trains/day)	12
Blockage time per train (min)	5
Vehicle crossings (vehicles/day)	4,355
Railroad maintenance (days/year)	7
Traffic Growth rate	0.75%
Non-motorized trips (trips/year)	4,000

Table 2: Grade Separation Cost Estimates (2024)

Bid Item	Unit	Unit Bid Price	Estimated Quantity	Estimated Cost
Approach Embankment Earthwork	Cu Yd	\$15	61,500	\$922,500
Retaining Wall	Sq Ft	\$150	2,100	\$315,000
Bridge	Sq Ft	\$350	11,160	\$3,906,000
Railroad Protective Services	LSum	\$330,000	1	\$330,000
CSAH 130 Reconstruction	Lin Ft	\$550	2400	\$1,320,000
Forestry Road Obliteration	LSum	\$75,000	1	\$75,000
Box Culvert Pedestrian Underpass	Lin Ft	\$2500	128	\$320,000
Subtotal				\$7,188,500
Contingency	%	20%	-	\$1,437,700
Total				\$8,626,200

Results of the calculations from the BCA are in **Table 3** and **Table 4** and derived from the assumptions stated above. Resulting Benefit-Cost Ratio (BCR) of the grade separation over the CN railway is estimated to be **1.20**, so benefits are greater than the cost of the construction of the grade separation crossing by 20%. While safety benefits based on historic risk are low, future safety risk mitigation is expected to add even more value to the proposed construction of a CSAH 100 railroad grade separation.

Table 3: Benefit-Cost Analysis: User Benefits (2022 \$)

Safety Benefits	Operating Benefits	Detour Travel Time Benefits	Railroad Crossings Delay Benefits	Emissions Benefits	Amenities Benefits	Total User Benefits
\$14,488	\$5,051,466	\$798,241	\$2,699,262	\$281,266	\$16,126	\$8,797,850

Table 4: Benefit-Cost Analysis: Residual Value & Maintenance value (2022 \$)

Residual Value	Net Maintenance Cost	Total Benefit	Estimated Construction Cost	Benefit Cost Ratio
\$965,630	-\$59,649	\$9,703,831	\$8,115,255	1.20

CSAH 100 Public Engagement Summary



Attachment A - Benefit Cost Analysis Results

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Benefit-Cost Analysis Overview											
Discounted Benefits (3.1%/2% CO2) to 2022 Dollars											
Calendar Year	Safety Benefits	Vehicle Delay from Traveled Train Crossings	Travel Time Savings from RR Closures	Sum of Travel Time Savings	Vehicle Operating Benefits	Emissions Benefits	Amenities Benefits	Total User Benefits	Residual Value	Operating & Maintenance	Total Benefit
2027	\$660	\$123,012	\$36,378	\$159,390	\$230,208	\$9,174	\$1,127	\$400,560	\$0	-\$4,492	\$396,067
2028	\$645	\$120,287	\$35,572	\$155,860	\$225,109	\$9,045	\$1,061	\$391,720	\$0	-\$4,199	\$387,522
2029	\$631	\$117,615	\$34,782	\$152,397	\$220,108	\$9,021	\$999	\$383,157	\$0	-\$3,924	\$379,233
2030	\$617	\$114,995	\$34,007	\$149,002	\$215,204	\$8,752	\$941	\$374,517	\$0	-\$3,667	\$370,850
2031	\$603	\$112,426	\$33,247	\$145,673	\$210,397	\$8,622	\$886	\$366,181	\$0	-\$3,427	\$362,753
2032	\$590	\$109,907	\$32,502	\$142,410	\$205,683	\$8,465	\$834	\$357,983	\$0	-\$3,203	\$354,780
2033	\$577	\$107,439	\$31,772	\$139,211	\$201,063	\$8,335	\$786	\$349,972	\$0	-\$2,994	\$346,978
2034	\$564	\$105,019	\$31,057	\$136,076	\$196,535	\$8,194	\$740	\$342,109	\$0	-\$2,798	\$339,312
2035	\$551	\$102,648	\$30,356	\$133,003	\$192,098	\$8,055	\$696	\$334,404	\$0	-\$2,615	\$331,790
2036	\$448	\$100,324	\$29,668	\$129,993	\$187,749	\$7,918	\$656	\$326,764	\$0	-\$2,444	\$324,321
2037	\$449	\$98,048	\$28,995	\$127,043	\$183,489	\$7,794	\$617	\$319,391	\$0	-\$2,284	\$317,107
2038	\$448	\$95,817	\$28,336	\$124,153	\$179,315	\$7,649	\$581	\$312,146	\$0	-\$2,134	\$310,012
2039	\$448	\$93,632	\$27,689	\$121,322	\$175,226	\$7,517	\$547	\$305,060	\$0	-\$1,995	\$303,065
2040	\$447	\$91,492	\$27,057	\$118,549	\$171,220	\$7,397	\$515	\$298,128	\$0	-\$1,864	\$296,264
2041	\$446	\$89,396	\$26,437	\$115,832	\$167,298	\$7,268	\$485	\$291,329	\$0	-\$1,742	\$289,587
2042	\$444	\$87,343	\$25,830	\$113,173	\$163,456	\$7,150	\$457	\$284,680	\$0	-\$1,628	\$283,052
2043	\$443	\$85,333	\$25,235	\$110,568	\$159,694	\$7,025	\$430	\$278,160	\$0	-\$1,522	\$276,638
2044	\$440	\$83,365	\$24,653	\$108,018	\$156,011	\$6,910	\$405	\$271,784	\$0	-\$1,422	\$270,362
2045	\$438	\$81,438	\$24,083	\$105,521	\$152,404	\$6,788	\$382	\$265,532	\$0	-\$1,329	\$264,203
2046	\$435	\$79,551	\$23,525	\$103,076	\$148,874	\$6,676	\$359	\$259,421	\$0	-\$1,242	\$258,178
2047	\$432	\$77,704	\$22,979	\$100,683	\$145,418	\$6,565	\$338	\$253,437	\$0	-\$1,161	\$252,276
2048	\$429	\$75,897	\$22,445	\$98,341	\$142,035	\$6,456	\$318	\$247,580	\$0	-\$1,085	\$246,495
2049	\$426	\$74,128	\$21,921	\$96,049	\$138,724	\$6,340	\$300	\$241,839	\$0	-\$1,014	\$240,825
2050	\$423	\$72,396	\$21,409	\$93,806	\$135,484	\$6,234	\$282	\$236,228	\$0	-\$948	\$235,281
2051	\$419	\$70,702	\$20,908	\$91,610	\$132,313	\$6,121	\$266	\$230,729	\$0	-\$886	\$229,843
2052	\$415	\$69,044	\$20,418	\$89,462	\$129,211	\$6,009	\$250	\$225,348	\$0	-\$828	\$224,520
2053	\$411	\$67,422	\$19,938	\$87,361	\$126,175	\$5,899	\$236	\$220,082	\$0	-\$774	\$219,309
2054	\$407	\$65,835	\$19,469	\$85,304	\$123,206	\$5,762	\$222	\$214,901	\$0	-\$723	\$214,178
2055	\$403	\$64,283	\$19,010	\$83,293	\$120,300	\$5,627	\$209	\$209,832	\$0	-\$676	\$209,156
2056	\$398	\$62,764	\$18,561	\$81,325	\$117,458	\$5,496	\$197	\$204,874	\$965,630	-\$631	\$1,169,873
Total	\$14,488	\$2,699,262	\$798,241	\$3,497,503	\$5,051,466	\$218,266	\$16,126	\$8,797,850	\$965,630	-\$59,649	\$9,703,831
										Capital Expenditures	\$8,115,255
										Benefit/Cost Ratio	1.20

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Calendar Year	Base Condition- NO BUILD							BUILD							Total Safety Savings	Discounted 3.1% to 2022 Dollars				
	Safety Benefits Summary							BUILD												
	Annual Forecast Killed Crashes	Annual Forecast Incapacitating Crashes	Annual Forecast Non-Incapacitating Crashes	Annual Forecast Possible Injury Crashes	Annual Forecast No Injury Crashes	Annual Forecast Crashes	Total Estimated Monetized Damages	Annual Forecast Killed Crashes	Annual Forecast Incapacitating Crashes	Annual Forecast Non-Incapacitating Crashes	Annual Forecast Possible Injury Crashes	Annual Forecast No Injury Crashes	Annual Forecast Crashes	Total Estimated Monetized Damages						
2027	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2028	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2029	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2030	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2031	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2032	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2033	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2034	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2036	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2037	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2038	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2039	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2041	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2042	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2043	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2044	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2045	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2046	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2047	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2048	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2049	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2050	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2051	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2052	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2053	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2054	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2055	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2056	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.0	0	0	3.4	0.0	10.3	13.8	\$ 857,724	0.00	0.00	0.00	3.45	0.00	5.17	\$ 831,553	\$ 26,170	\$ 14,438	\$ 14,438	\$ 14,438	\$ 14,438

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Travel Time Benefits from Railroad Maintenance Closures

Calendar Year	Base Condition- No Build		Build Condition		Total Travel Time Savings	Discounted 3.1% to 2022 dollars
	Annual Forecasted Vehicle Hours Traveled	Total Estimated Monetized Damages	Annual Forecasted Vehicle Hours Traveled	Total Estimated Monetized Damages		
2027	1,294	\$ 42,377	0	\$ -	\$ 42,377	\$ 36,378
2028	1,304	\$ 42,723	0	\$ -	\$ 42,723	\$ 35,572
2029	1,315	\$ 43,069	0	\$ -	\$ 43,069	\$ 34,782
2030	1,325	\$ 43,415	0	\$ -	\$ 43,415	\$ 34,007
2031	1,336	\$ 43,761	0	\$ -	\$ 43,761	\$ 33,247
2032	1,346	\$ 44,106	0	\$ -	\$ 44,106	\$ 32,502
2033	1,357	\$ 44,452	0	\$ -	\$ 44,452	\$ 31,772
2034	1,368	\$ 44,798	0	\$ -	\$ 44,798	\$ 31,057
2035	1,378	\$ 45,144	0	\$ -	\$ 45,144	\$ 30,356
2036	1,389	\$ 45,490	0	\$ -	\$ 45,490	\$ 29,668
2037	1,399	\$ 45,836	0	\$ -	\$ 45,836	\$ 28,995
2038	1,410	\$ 46,182	0	\$ -	\$ 46,182	\$ 28,336
2039	1,420	\$ 46,528	0	\$ -	\$ 46,528	\$ 27,689
2040	1,431	\$ 46,874	0	\$ -	\$ 46,874	\$ 27,057
2041	1,441	\$ 47,219	0	\$ -	\$ 47,219	\$ 26,437
2042	1,452	\$ 47,565	0	\$ -	\$ 47,565	\$ 25,830
2043	1,463	\$ 47,911	0	\$ -	\$ 47,911	\$ 25,235
2044	1,473	\$ 48,257	0	\$ -	\$ 48,257	\$ 24,653
2045	1,484	\$ 48,603	0	\$ -	\$ 48,603	\$ 24,083
2046	1,494	\$ 48,949	0	\$ -	\$ 48,949	\$ 23,525
2047	1,505	\$ 49,295	0	\$ -	\$ 49,295	\$ 22,979
2048	1,515	\$ 49,641	0	\$ -	\$ 49,641	\$ 22,445
2049	1,526	\$ 49,986	0	\$ -	\$ 49,986	\$ 21,921
2050	1,537	\$ 50,332	0	\$ -	\$ 50,332	\$ 21,409
2051	1,547	\$ 50,678	0	\$ -	\$ 50,678	\$ 20,908
2052	1,558	\$ 51,024	0	\$ -	\$ 51,024	\$ 20,418
2053	1,568	\$ 51,370	0	\$ -	\$ 51,370	\$ 19,938
2054	1,579	\$ 51,716	0	\$ -	\$ 51,716	\$ 19,469
2055	1,589	\$ 52,062	0	\$ -	\$ 52,062	\$ 19,010
2056	1,600	\$ 52,408	0	\$ -	\$ 52,408	\$ 18,561
Total	43,403	\$ 1,421,771	0	\$ -	\$ 1,421,771	\$ 798,241

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Travel Time Benefits from Train Crossings

Calendar Year	Base Condition- No Build		Build Condition		Total Travel Time Savings	Discounted 3.1% to 2022 dollars
	Annual Forecasted Vehicle Hours Traveled	Total Estimated Monetized Damages	Annual Forecasted Vehicle Hours Traveled	Total Estimated Monetized Damages		
2027	4,375	\$ 143,299	0	\$ -	\$ 143,299	\$ 123,012
2028	4,410	\$ 144,468	0	\$ -	\$ 144,468	\$ 120,287
2029	4,446	\$ 145,638	0	\$ -	\$ 145,638	\$ 117,615
2030	4,482	\$ 146,807	0	\$ -	\$ 146,807	\$ 114,995
2031	4,517	\$ 147,977	0	\$ -	\$ 147,977	\$ 112,426
2032	4,553	\$ 149,147	0	\$ -	\$ 149,147	\$ 109,907
2033	4,589	\$ 150,316	0	\$ -	\$ 150,316	\$ 107,439
2034	4,624	\$ 151,486	0	\$ -	\$ 151,486	\$ 105,019
2035	4,660	\$ 152,656	0	\$ -	\$ 152,656	\$ 102,648
2036	4,696	\$ 153,825	0	\$ -	\$ 153,825	\$ 100,324
2037	4,732	\$ 154,995	0	\$ -	\$ 154,995	\$ 98,048
2038	4,767	\$ 156,164	0	\$ -	\$ 156,164	\$ 95,817
2039	4,803	\$ 157,334	0	\$ -	\$ 157,334	\$ 93,632
2040	4,839	\$ 158,504	0	\$ -	\$ 158,504	\$ 91,492
2041	4,874	\$ 159,673	0	\$ -	\$ 159,673	\$ 89,396
2042	4,910	\$ 160,843	0	\$ -	\$ 160,843	\$ 87,343
2043	4,946	\$ 162,012	0	\$ -	\$ 162,012	\$ 85,333
2044	4,982	\$ 163,182	0	\$ -	\$ 163,182	\$ 83,365
2045	5,017	\$ 164,352	0	\$ -	\$ 164,352	\$ 81,438
2046	5,053	\$ 165,521	0	\$ -	\$ 165,521	\$ 79,551
2047	5,089	\$ 166,691	0	\$ -	\$ 166,691	\$ 77,704
2048	5,124	\$ 167,860	0	\$ -	\$ 167,860	\$ 75,897
2049	5,160	\$ 169,030	0	\$ -	\$ 169,030	\$ 74,128
2050	5,196	\$ 170,200	0	\$ -	\$ 170,200	\$ 72,396
2051	5,231	\$ 171,369	0	\$ -	\$ 171,369	\$ 70,702
2052	5,267	\$ 172,539	0	\$ -	\$ 172,539	\$ 69,044
2053	5,303	\$ 173,708	0	\$ -	\$ 173,708	\$ 67,422
2054	5,339	\$ 174,878	0	\$ -	\$ 174,878	\$ 65,835
2055	5,374	\$ 176,048	0	\$ -	\$ 176,048	\$ 64,283
2056	5,410	\$ 177,217	0	\$ -	\$ 177,217	\$ 62,764
Total	146,768	\$ 4,807,740	0	\$ -	\$ 4,807,740	\$ 2,699,262

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Vehicle Operation Benefits from Detour for Railroad Crossing Closure

Calendar Year	Project Analysis Year	Base Condition- No Build		Build Condition		Total Travel Time Savings	Discounted 3.1% to 2022 dollars
		Annual Forecasted Vehicle Miles Traveled	Total Estimated Monetized Damages	Annual Forecasted Vehicle Miles Traveled	Total Estimated Monetized Damages		
2027	1	490,799	\$ 268,173	0	\$ -	\$ 268,173	\$ 230,208
2028	2	494,805	\$ 270,361	0	\$ -	\$ 270,361	\$ 225,109
2029	3	498,811	\$ 272,550	0	\$ -	\$ 272,550	\$ 220,108
2030	4	502,817	\$ 274,739	0	\$ -	\$ 274,739	\$ 215,204
2031	5	506,823	\$ 276,928	0	\$ -	\$ 276,928	\$ 210,397
2032	6	510,829	\$ 279,117	0	\$ -	\$ 279,117	\$ 205,683
2033	7	514,835	\$ 281,306	0	\$ -	\$ 281,306	\$ 201,063
2034	8	518,841	\$ 283,494	0	\$ -	\$ 283,494	\$ 196,535
2035	9	522,846	\$ 285,683	0	\$ -	\$ 285,683	\$ 192,098
2036	10	526,852	\$ 287,872	0	\$ -	\$ 287,872	\$ 187,749
2037	11	530,858	\$ 290,061	0	\$ -	\$ 290,061	\$ 183,489
2038	12	534,864	\$ 292,250	0	\$ -	\$ 292,250	\$ 179,315
2039	13	538,870	\$ 294,439	0	\$ -	\$ 294,439	\$ 175,226
2040	14	542,876	\$ 296,627	0	\$ -	\$ 296,627	\$ 171,220
2041	15	546,882	\$ 298,816	0	\$ -	\$ 298,816	\$ 167,298
2042	16	550,888	\$ 301,005	0	\$ -	\$ 301,005	\$ 163,456
2043	17	554,894	\$ 303,194	0	\$ -	\$ 303,194	\$ 159,694
2044	18	558,900	\$ 305,383	0	\$ -	\$ 305,383	\$ 156,011
2045	19	562,906	\$ 307,572	0	\$ -	\$ 307,572	\$ 152,404
2046	20	566,912	\$ 309,760	0	\$ -	\$ 309,760	\$ 148,874
2047	21	570,918	\$ 311,949	0	\$ -	\$ 311,949	\$ 145,418
2048	22	574,923	\$ 314,138	0	\$ -	\$ 314,138	\$ 142,035
2049	23	578,929	\$ 316,327	0	\$ -	\$ 316,327	\$ 138,724
2050	24	582,935	\$ 318,516	0	\$ -	\$ 318,516	\$ 135,484
2051	25	586,941	\$ 320,705	0	\$ -	\$ 320,705	\$ 132,313
2052	26	590,947	\$ 322,894	0	\$ -	\$ 322,894	\$ 129,211
2053	27	594,953	\$ 325,082	0	\$ -	\$ 325,082	\$ 126,175
2054	28	598,959	\$ 327,271	0	\$ -	\$ 327,271	\$ 123,206
2055	29	602,965	\$ 329,460	0	\$ -	\$ 329,460	\$ 120,300
2056	30	606,971	\$ 331,649	0	\$ -	\$ 331,649	\$ 117,458
Total		16,466,549	\$ 8,997,322	0	\$ -	\$ 8,997,322	\$ 5,051,466

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Emissions benefits from Train Crossings																									
Calendar Year	Delay (hours)			Delay Annual Benefit By Vehicle Classification		Annual Fuel Savings			NO _x Savings	SO _x Savings	PM _{2.5} Savings	CO ₂ Savings	NO _x Monetized Value	SO _x Monetized Value	PM _{2.5} Monetized Value	CO ₂ Monetized Value	Monetized value of NO _x savings	Monetized value of SO _x savings	Monetized value of PM _{2.5} savings	Monetized value of CO ₂ savings	CO ₂ Emissions Discounted 2% to 2022 Dollars	(NO _x , SO _x , PM _{2.5}) Discounted 3.1% to 2022 Dollars	Fuel Savings Discounted 3.1% to 2022 Dollars	Total Emissions and Fuel Savings	Total Discounted (3.1%/26%) to 2022 Dollars Savings
	Non-BUILD	BUILD	Delay Benefit (annual)	All-Purpose	Truck	All-Purpose gasoline (gallons)	Truck, diesel (gallons)	Drive Savings	metric ton	metric ton	metric ton	metric ton	\$/metric ton	\$/metric ton	\$/metric ton	\$/metric ton	\$	\$	\$	\$					
2027	4,375	0	4,375	4,332	144	1,650	93	\$ 6,272	0.02	0	0.00	16	\$ 21,000	\$ 37,400	\$ 399,500	\$ 245	\$ 415	\$ -	\$ 198	\$ 3,924	\$ 3,296.78	\$ 451.56	\$ 5,384.01	\$12,689	\$5,174
2028	4,411	0	4,411	4,265	145	1,663	93	\$ 6,321	0.02	0	0.00	16	\$ 21,300	\$ 38,700	\$ 1,011,900	\$ 250	\$ 424	\$ -	\$ 162	\$ 3,993	\$ 3,293.76	\$ 487.35	\$ 5,263.20	\$10,840	\$5,645
2029	4,445	0	4,445	4,299	147	1,676	94	\$ 6,371	0.02	0	0.00	16	\$ 21,700	\$ 60,100	\$ 1,020,600	\$ 263	\$ 435	\$ -	\$ 166	\$ 4,170	\$ 3,390.37	\$ 486.83	\$ 5,144.78	\$11,142	\$5,021
2030	4,480	0	4,480	4,332	148	1,689	95	\$ 6,420	0.02	0	0.00	16	\$ 22,000	\$ 61,500	\$ 1,045,600	\$ 257	\$ 445	\$ -	\$ 171	\$ 4,106	\$ 3,341.44	\$ 482.10	\$ 5,028.73	\$11,142	\$8,733
2031	4,514	0	4,514	4,365	149	1,702	95	\$ 6,469	0.02	0	0.00	16	\$ 22,000	\$ 61,500	\$ 1,063,000	\$ 262	\$ 448	\$ -	\$ 175	\$ 4,218	\$ 3,282.91	\$ 473.62	\$ 4,925.01	\$11,311	\$8,623
2032	4,549	0	4,549	4,398	150	1,715	96	\$ 6,519	0.02	0	0.00	16	\$ 22,000	\$ 61,500	\$ 1,065,000	\$ 265	\$ 452	\$ -	\$ 177	\$ 4,299	\$ 3,198.89	\$ 467.88	\$ 4,803.58	\$11,440	\$8,668
2033	4,583	0	4,583	4,432	151	1,728	97	\$ 6,568	0.02	0	0.00	16	\$ 22,000	\$ 61,500	\$ 1,065,000	\$ 272	\$ 459	\$ -	\$ 178	\$ 4,413	\$ 3,188.27	\$ 452.36	\$ 4,634.41	\$11,610	\$8,393
2034	4,617	0	4,617	4,465	152	1,741	98	\$ 6,617	0.02	0	0.00	16	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 274	\$ 458	\$ -	\$ 179	\$ 4,512	\$ 3,164.88	\$ 443.00	\$ 4,587.40	\$11,787	\$8,194
2035	4,652	0	4,652	4,498	154	1,754	98	\$ 6,667	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 278	\$ 462	\$ -	\$ 181	\$ 4,612	\$ 3,140.78	\$ 431.36	\$ 4,482.60	\$11,921	\$8,039
2036	4,686	0	4,686	4,532	155	1,767	99	\$ 6,716	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 282	\$ 465	\$ -	\$ 182	\$ 4,713	\$ 3,116.06	\$ 423.07	\$ 4,480.08	\$12,076	\$7,915
2037	4,721	0	4,721	4,565	156	1,780	100	\$ 6,765	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 287	\$ 469	\$ -	\$ 183	\$ 4,832	\$ 3,101.66	\$ 412.39	\$ 4,275.53	\$12,249	\$7,794
2038	4,755	0	4,755	4,598	157	1,793	100	\$ 6,815	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 290	\$ 472	\$ -	\$ 185	\$ 4,918	\$ 3,064.89	\$ 402.90	\$ 4,181.18	\$12,389	\$7,649
2039	4,790	0	4,790	4,632	158	1,806	101	\$ 6,864	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 294	\$ 476	\$ -	\$ 186	\$ 5,022	\$ 3,038.50	\$ 393.00	\$ 4,084.80	\$12,547	\$7,517
2040	4,824	0	4,824	4,665	159	1,819	102	\$ 6,913	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 295	\$ 479	\$ -	\$ 187	\$ 5,144	\$ 3,021.73	\$ 384.53	\$ 3,990.48	\$12,714	\$7,397
2041	4,859	0	4,859	4,698	160	1,832	103	\$ 6,963	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 303	\$ 482	\$ -	\$ 189	\$ 5,250	\$ 2,994.18	\$ 375.03	\$ 3,898.11	\$12,894	\$7,268
2042	4,893	0	4,893	4,731	161	1,845	103	\$ 7,012	0.02	0	0.00	17	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 308	\$ 486	\$ -	\$ 190	\$ 5,375	\$ 2,975.88	\$ 366.31	\$ 3,807.69	\$13,062	\$7,130
2043	4,927	0	4,927	4,765	163	1,858	104	\$ 7,061	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 312	\$ 489	\$ -	\$ 191	\$ 5,483	\$ 2,947.33	\$ 358.99	\$ 3,715.19	\$13,225	\$7,009
2044	4,962	0	4,962	4,798	164	1,871	105	\$ 7,111	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 317	\$ 493	\$ -	\$ 193	\$ 5,610	\$ 2,927.64	\$ 350.66	\$ 3,632.52	\$13,409	\$6,910
2045	4,996	0	4,996	4,831	165	1,884	106	\$ 7,160	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 321	\$ 496	\$ -	\$ 194	\$ 5,720	\$ 2,898.21	\$ 341.87	\$ 3,547.78	\$13,570	\$6,768
2046	5,031	0	5,031	4,865	166	1,897	106	\$ 7,209	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 326	\$ 499	\$ -	\$ 195	\$ 5,849	\$ 2,877.31	\$ 333.87	\$ 3,464.82	\$13,753	\$6,670
2047	5,065	0	5,065	4,898	167	1,910	107	\$ 7,259	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 331	\$ 503	\$ -	\$ 197	\$ 5,979	\$ 2,855.76	\$ 326.05	\$ 3,385.64	\$13,927	\$6,568
2048	5,099	0	5,099	4,931	168	1,923	108	\$ 7,308	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 336	\$ 506	\$ -	\$ 198	\$ 6,111	\$ 2,833.39	\$ 318.40	\$ 3,304.20	\$14,123	\$6,436
2049	5,134	0	5,134	4,964	169	1,936	108	\$ 7,357	0.02	0	0.00	18	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 340	\$ 510	\$ -	\$ 199	\$ 6,225	\$ 2,802.61	\$ 310.31	\$ 3,225.43	\$14,292	\$6,340
2050	5,168	0	5,168	4,998	171	1,949	109	\$ 7,407	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 345	\$ 513	\$ -	\$ 201	\$ 6,359	\$ 2,775.30	\$ 303.56	\$ 3,150.46	\$14,480	\$6,234
2051	5,203	0	5,203	5,031	172	1,962	110	\$ 7,456	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 349	\$ 517	\$ -	\$ 202	\$ 6,476	\$ 2,748.02	\$ 296.42	\$ 3,075.08	\$14,650	\$6,121
2052	5,237	0	5,237	5,064	173	1,975	111	\$ 7,505	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 352	\$ 520	\$ -	\$ 203	\$ 6,593	\$ 2,716.41	\$ 289.40	\$ 3,005.33	\$14,822	\$6,009
2053	5,271	0	5,271	5,098	174	1,988	111	\$ 7,555	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 357	\$ 523	\$ -	\$ 205	\$ 6,712	\$ 2,684.71	\$ 282.55	\$ 2,931.18	\$14,995	\$5,899
2054	5,305	0	5,305	5,131	175	2,001	113	\$ 7,604	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 357	\$ 527	\$ -	\$ 206	\$ 6,796	\$ 2,652.54	\$ 275.84	\$ 2,862.58	\$15,092	\$5,762
2055	5,340	0	5,340	5,164	175	2,014	113	\$ 7,653	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 357	\$ 530	\$ -	\$ 207	\$ 6,800	\$ 2,663.65	\$ 269.28	\$ 2,794.53	\$15,190	\$5,627
2056	5,375	0	5,375	5,197	177	2,027	114	\$ 7,703	0.02	0	0.00	19	\$ 22,000	\$ 61,500	\$ 1,069,000	\$ 357	\$ 534	\$ -	\$ 209	\$ 6,843	\$ 2,603.07	\$ 262.87	\$ 2,727.57	\$15,288	\$5,490
Total	146,269	0	146,269	141,442	4,827	55,162	3,089	\$ 209,617	0.66	0	0.01	922	Yearly Value Given in Table A-6 of FHWA RAISE BCA Guidance				\$ 14,483	\$ -	\$ 5,645	\$ 160,860	\$ 89,226	\$ 11,288	\$ 117,752	\$ 390,606	\$ 216,266

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Pedestrian and Bicyclist Amenities Benefits

Calendar Year	Pedestrian Amenities					Bicycle Amenities				Total Amenities Savings	Discounted 3.1% to 2022 Dollars
	Width of New Pathway (feet)	Average Trip Length	Number of Annual Trips	Value per Person-Mile Walked	Pedestrian Amenities Benefits	Average Trip Length	Number of Annual Trips	Value per Cycle-Mile	Cycling Amenities Benefits		
	(feet)	(miles)	(trips/year)	\$	\$	(miles)	(trips/year)	\$	\$		
2027	10	0.3	3,000	\$ 0.11	\$ 990	0.3	1,001	\$ 1.97	\$ 591	\$1,581	\$1,127
2028	10	0.3	3,023	\$ 0.11	\$ 997	0.3	1,008	\$ 1.97	\$ 595	\$1,593	\$1,061
2029	10	0.3	3,045	\$ 0.11	\$ 1,005	0.3	1,015	\$ 1.97	\$ 600	\$1,605	\$999
2030	10	0.3	3,068	\$ 0.11	\$ 1,012	0.3	1,023	\$ 1.97	\$ 604	\$1,617	\$941
2031	10	0.3	3,091	\$ 0.11	\$ 1,020	0.3	1,030	\$ 1.97	\$ 609	\$1,629	\$886
2032	10	0.3	3,114	\$ 0.11	\$ 1,028	0.3	1,038	\$ 1.97	\$ 613	\$1,641	\$834
2033	10	0.3	3,138	\$ 0.11	\$ 1,035	0.3	1,046	\$ 1.97	\$ 618	\$1,653	\$786
2034	10	0.3	3,161	\$ 0.11	\$ 1,043	0.3	1,054	\$ 1.97	\$ 623	\$1,666	\$740
2035	10	0.3	3,185	\$ 0.11	\$ 1,051	0.3	1,062	\$ 1.97	\$ 627	\$1,678	\$696
2036	10	0.3	3,209	\$ 0.11	\$ 1,059	0.3	1,070	\$ 1.97	\$ 632	\$1,691	\$656
2037	10	0.3	3,233	\$ 0.11	\$ 1,067	0.3	1,078	\$ 1.97	\$ 637	\$1,704	\$617
2038	10	0.3	3,257	\$ 0.11	\$ 1,075	0.3	1,086	\$ 1.97	\$ 642	\$1,716	\$581
2039	10	0.3	3,281	\$ 0.11	\$ 1,083	0.3	1,094	\$ 1.97	\$ 646	\$1,729	\$547
2040	10	0.3	3,306	\$ 0.11	\$ 1,091	0.3	1,102	\$ 1.97	\$ 651	\$1,742	\$515
2041	10	0.3	3,331	\$ 0.11	\$ 1,099	0.3	1,110	\$ 1.97	\$ 656	\$1,755	\$485
2042	10	0.3	3,356	\$ 0.11	\$ 1,107	0.3	1,119	\$ 1.97	\$ 661	\$1,769	\$457
2043	10	0.3	3,381	\$ 0.11	\$ 1,116	0.3	1,127	\$ 1.97	\$ 666	\$1,782	\$430
2044	10	0.3	3,406	\$ 0.11	\$ 1,124	0.3	1,135	\$ 1.97	\$ 671	\$1,795	\$405
2045	10	0.3	3,432	\$ 0.11	\$ 1,133	0.3	1,144	\$ 1.97	\$ 676	\$1,809	\$382
2046	10	0.3	3,458	\$ 0.11	\$ 1,141	0.3	1,153	\$ 1.97	\$ 681	\$1,822	\$359
2047	10	0.3	3,484	\$ 0.11	\$ 1,150	0.3	1,161	\$ 1.97	\$ 686	\$1,836	\$338
2048	10	0.3	3,510	\$ 0.11	\$ 1,158	0.3	1,170	\$ 1.97	\$ 691	\$1,850	\$318
2049	10	0.3	3,536	\$ 0.11	\$ 1,167	0.3	1,179	\$ 1.97	\$ 697	\$1,863	\$300
2050	10	0.3	3,563	\$ 0.11	\$ 1,176	0.3	1,188	\$ 1.97	\$ 702	\$1,877	\$282
2051	10	0.3	3,589	\$ 0.11	\$ 1,184	0.3	1,196	\$ 1.97	\$ 707	\$1,892	\$266
2052	10	0.3	3,616	\$ 0.11	\$ 1,193	0.3	1,205	\$ 1.97	\$ 712	\$1,906	\$250
2053	10	0.3	3,643	\$ 0.11	\$ 1,202	0.3	1,214	\$ 1.97	\$ 718	\$1,920	\$236
2054	10	0.3	3,671	\$ 0.11	\$ 1,211	0.3	1,224	\$ 1.97	\$ 723	\$1,934	\$222
2055	10	0.3	3,698	\$ 0.11	\$ 1,220	0.3	1,233	\$ 1.97	\$ 729	\$1,949	\$209
2056	10	0.3	3,726	\$ 0.11	\$ 1,230	0.3	1,242	\$ 1.97	\$ 734	\$1,964	\$197
Total			100,509		\$ 33,168		33,503		\$ 19,800	\$52,968	\$16,126

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Capital Costs/Residual Values

Calendar Year	Initial Capital Costs (2024 \$)	Percent of Capital Expenditures	Asset Life	2056 Remaining Value	Present Value discounted 3.1% to 2022 dollars
Final Design Engineering	\$ 198,000	2%	0	\$ 0	\$ 0
Right-of-Way	\$ 30,000	0%	100	\$ 21,000	\$ 7,437
Major Structures	\$ 4,541,000	53%	60	\$ 2,270,500	\$ 804,131
Excavation/Removals	\$ 207,000	2%	0	\$ -	\$ -
Grading and Drainage	\$ 922,500	11%	50	\$ 369,000	\$ 130,687
Sub-base and Base	\$ 264,000	3%	40	\$ 66,000	\$ 23,375
Surface	\$ 726,000	8%	30	\$ -	\$ -
Remaining "Other" Project Cost	\$ 1,737,700	20%	0	\$ -	\$ -
Total Project Cost	\$ 8,626,200	100%	N/A	\$ 2,726,500	\$ 965,630

CSAH 100 Public Engagement Summary

Saint Louis County CSAH 100 Railroad Grade Separation Feasibility

Operating & Maintenance costs

Calendar Year	No Build	Build	Total Net Operating Benefit in 2022 Dollars	Discounted 3.1% to 2022 Dollars
2027	\$2,000	\$8,301	-\$6,301	-\$4,492
2028	\$2,000	\$8,301	-\$6,301	-\$4,199
2029	\$2,000	\$8,301	-\$6,301	-\$3,924
2030	\$2,000	\$8,301	-\$6,301	-\$3,667
2031	\$2,000	\$8,301	-\$6,301	-\$3,427
2032	\$2,000	\$8,301	-\$6,301	-\$3,203
2033	\$2,000	\$8,301	-\$6,301	-\$2,994
2034	\$2,000	\$8,301	-\$6,301	-\$2,798
2035	\$2,000	\$8,301	-\$6,301	-\$2,615
2036	\$2,000	\$8,301	-\$6,301	-\$2,444
2037	\$2,000	\$8,301	-\$6,301	-\$2,284
2038	\$2,000	\$8,301	-\$6,301	-\$2,134
2039	\$2,000	\$8,301	-\$6,301	-\$1,995
2040	\$2,000	\$8,301	-\$6,301	-\$1,864
2041	\$2,000	\$8,301	-\$6,301	-\$1,742
2042	\$2,000	\$8,301	-\$6,301	-\$1,628
2043	\$2,000	\$8,301	-\$6,301	-\$1,522
2044	\$2,000	\$8,301	-\$6,301	-\$1,422
2045	\$2,000	\$8,301	-\$6,301	-\$1,329
2046	\$2,000	\$8,301	-\$6,301	-\$1,242
2047	\$2,000	\$8,301	-\$6,301	-\$1,161
2048	\$2,000	\$8,301	-\$6,301	-\$1,085
2049	\$2,000	\$8,301	-\$6,301	-\$1,014
2050	\$2,000	\$8,301	-\$6,301	-\$948
2051	\$2,000	\$8,301	-\$6,301	-\$886
2052	\$2,000	\$8,301	-\$6,301	-\$828
2053	\$2,000	\$8,301	-\$6,301	-\$774
2054	\$2,000	\$8,301	-\$6,301	-\$723
2055	\$2,000	\$8,301	-\$6,301	-\$676
2056	\$2,000	\$8,301	-\$6,301	-\$631
Total			-\$189,026	-\$59,649

Facility	Quantity	Year	Maintenance Costs	2022 Annual Unit Cost
No Build				
Railroad Crossing	1	2024	\$ 2,000	\$ 2,000
Total No-Build				\$ 2,000
Bridge	1	2014	\$ 6,804	\$ 8,301
Total Build				\$ 8,301