

20-Year State Highway Investment Plan



MINNESOTA GO

TAC Funding and Programming

July 21, 2022

Thanks for having us! Why are we here?

- MnDOT is planning for the future of your state highway system!
- MnDOT needs your input in determining which investments are most important to Minnesotans



How to provide feedback today



What are we planning for? What is MnSHIP?

SEPTEMBER 2022

20-YEAR STATE HIGHWAY INVESTMENT PLAN



Identifying priorities for investing in state highways to maintain and improve the system over the next 20 years.

MINNESOTA **GO**

What is MnSHIP?



Directs capital funding on the 11,703 miles of state highways



Budgets for estimated funding over 20 years



Identifies investments by categories but is not project specific



Part of the Minnesota GO Family of Plans



Why does MnSHIP matter?

MnSHIP investment direction guides the planning of projects and improvements on the state highway system

MINNESOTA GO
50-YEAR VISION

Statewide Multimodal
Transportation Plan



20-Year State
Highway Investment Plan



**10-YEAR CAPITAL HIGHWAY
INVESTMENT PLAN (CHIP)**

Project planning and development
Updated annually

**4-YEAR STATE
TRANSPORTATION
IMPROVEMENT PROGRAM
(STIP)**

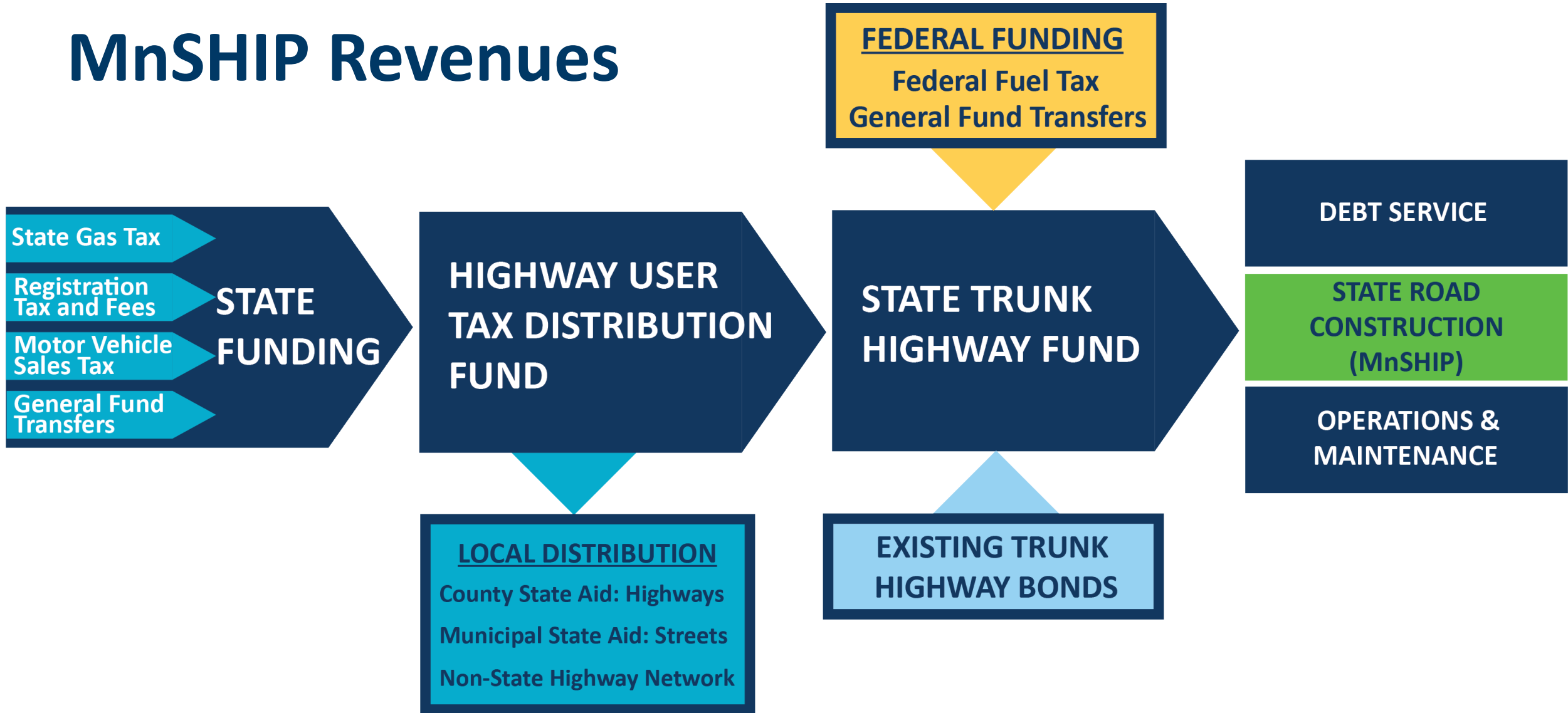
Project design and its program

CONSTRUCTION

100 Years of Highways

- **Minnesota's state highway system recently turned 100!**
- **History of system is complex**
- **State highways improved access between cities and towns throughout the state – supporting economic growth and vitality**
- **Construction of state highways also divided, disconnected and destroyed some communities**
- **Vehicle emissions contribute to climate change**
- **Much has changed in 100 years and more will change in the future. We need to ensure the benefits and burdens of future transportation decisions are equitable and work towards reducing existing inequities.**

MnSHIP Revenues





**How much revenue
is estimated?**

\$30-33 Billion
(2023-2042)



Incorporating New IIJA Programs

- **Bridge Condition** – Federal bridge program
 - Assumes program does not continue post-IIJA
 - *Aligns with revenue assumptions*
- **Climate Resilience** – PROTECT Program
 - Assumes only 50% of program directed towards trunk highway improvements
 - *Aligns with revenue assumptions*
 - Program replaces existing proposed proactive climate resilient infrastructure program

SYSTEM STEWARDSHIP

Pavement Condition

Bridge Condition

Roadside Infrastructure

Rest Areas

CLIMATE ACTION

Climate Resilience

Incorporating New IIJA Programs (cont'd)

- **Transportation Safety** – Federal HSIP
 - Incorporate IIJA HSIP funding increase
 - Lower MnDOT share from 40% to 30%
- **Local Partnership** – State match for non-SRC funded/non-state led projects on state highways
 - Accommodates the need for increased state match for IIJA discretionary grant matches
- No change in National Highway Freight Program funding
- Carbon reduction program and EV infrastructure programs not incorporate in investment categories
 - Programming Update Workgroup and Climate Resilience Workgroup are working on IIJA distribution

TRANSPORTATION SAFETY

Transportation Safety
Advancing Technology

CRITICAL CONNECTIONS

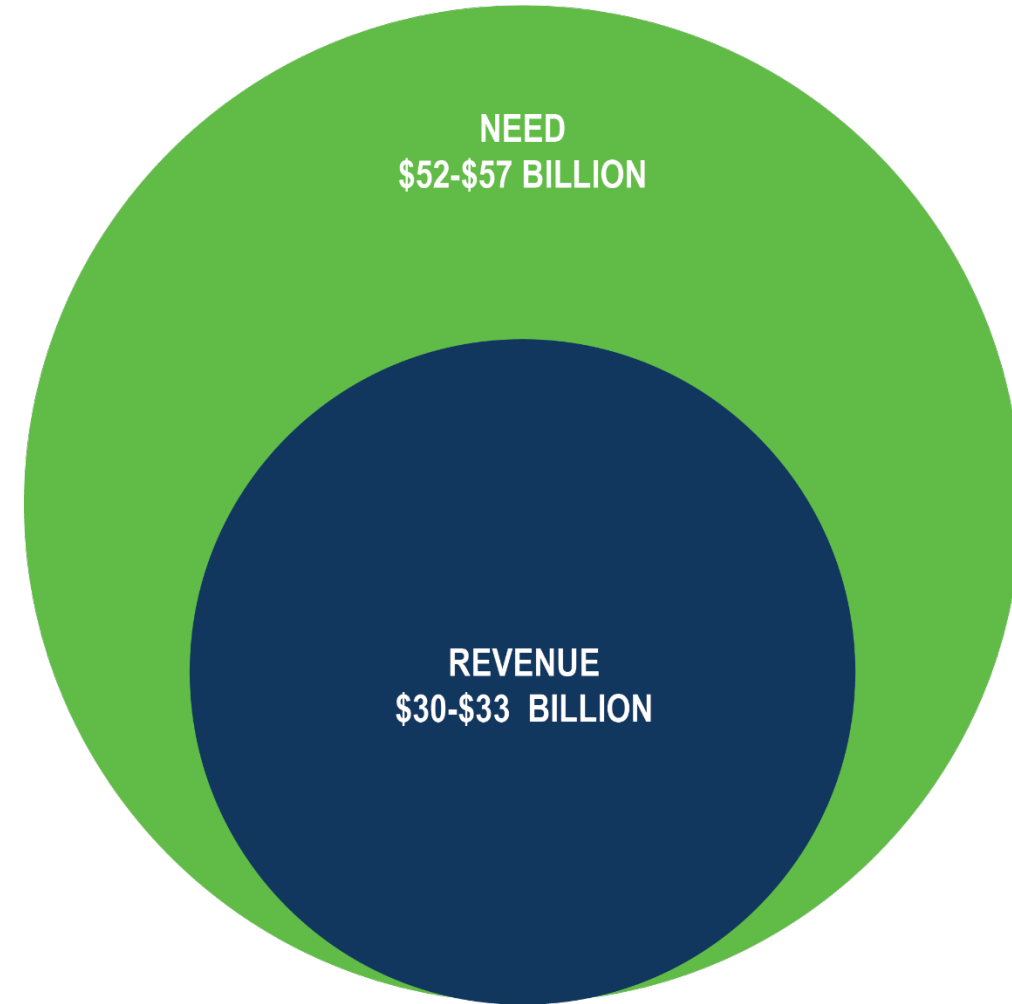
Highway Mobility
Freight
Pedestrian and Bicycle

HEALTHY EQUITABLE COMMUNITIES

Local Partnerships
Main Streets/Urban Pavements

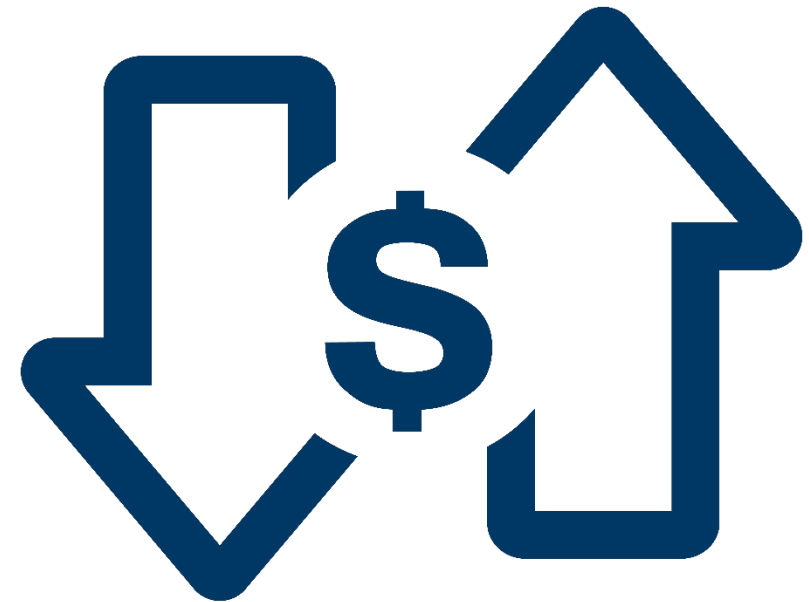
Revenue vs. Need

- **MnDOT is projecting a funding gap of between \$19 – \$27 billion**
- Increase due to several factors
 - Projected costs of inflation
 - Refined and more thorough planning processes
 - New state goals in areas such as pedestrian and bicycle facilities and freight
- Low end of estimated need reflects Minnesota successfully achieving preliminary goals of reducing per capita Vehicle Miles Traveled (VMT)
- In addition to the needs identified by MnDOT, cities and counties have identified \$5-6 billion in priority investments on the state highway system



Discussion of Priorities and Trade-Offs

- \$30-\$33 billion in available funding for the state highway system over the next 20 years
- A minimum of \$23.5 billion is needed across all categories to:
 - Manage highest risks
 - Complete programmed projects
 - Implement federal funding programs
 - Meet requirements in each category
- An estimated \$7-\$9 billion of remaining funding is available for additional improvements or outcomes





**What are the
most important
improvements
to prioritize?**



Provide feedback today



www.menti.com

Code: 6140 7647



What are the top five improvements you feel are most important?

- Improve readiness for changing transportation technology
- Improve condition of bridges through more repair and replacement projects
- Adapt infrastructure to resist damage from extreme weather events and improve resilience
- Add more freight mobility and safety improvements
- Focus on reducing unexpected travel delays through mobility and capacity improvements
- Partner with cities and counties to address quality of life and economic development
- Focus on addressing improvements in urban areas including small towns and main streets
- Maintain and expand pedestrian and bicycle infrastructure including making it accessible for all
- Maintain smooth driving surface through more repair and reconstruction projects
- Maintain rest areas for the safety and health of travelers and truck drivers
- Improve condition of other roadside infrastructure like signals, culverts, lighting, walls and guardrail
- Add new safety improvements

www.menti.com Code: 6140 7647

[Go to Mentimeter results]

Which approach best aligns with your vision for the state highway system?



“I'd like to see the existing system maintained first before expanding or adding to the system. A smooth road surface when driving is most important. Roads which become rough should not stay that way for long.”

**Adapt to
Changing
Technology
and Climate**

**Improve
Mobility for All
Highway Users**

**Prioritize
Pavements**
(Current Approach)

**Prioritize
Bridges**

**Prioritize
Highway Capacity
Expansion**

**Focus on Safe
and Equitable
Communities**

Prioritize Pavements/Current Approach



- Upside
 - Provides best pavement outcomes
 - Maintains bridges and roadside infrastructure
- Downside
 - Limits mobility, capacity expansion and safety investment
 - Limits ability to address technology and climate resilience

Improve
Mobility for All
Highway Users

Adapt to
Changing
Technology
and Climate

“Highways should be made more resistant to the growing extreme weather events and support changing transportation technology. Highways also need to be designed to support more walking and bicycling.”

Prioritize
Bridges

Prioritize
Pavements
(Current Approach)

Prioritize
Highway Capacity
Expansion

Focus on Safe
and Equitable
Communities



Adapt to Changing Technology and Climate

- **Upside**

- Focuses investment on emerging issues/trends
- Increases funding for safety
- Increases investment in ped and bike infrastructure for system completion
- Provides some added funds for bridges and roadside infrastructure

- **Downside**

- Reduces pavement funding and worsens outcomes
- Limits vehicle mobility and capacity expansion investment





“Whatever additional resources are available should be put towards improving and maintaining bridges. MnDOT should not be in a position where it would need to close or limit traffic on bridges because they need repairs.”

Prioritize Bridges



- **Upside**

- Provides best bridge outcomes including ped bridges
- Adds some funding for climate resilience
- Adds funds in ped and bike infrastructure (as a part of bridge projects)
- Invests in pavements but at a lower funding level

- **Downside**

- Limits mobility, capacity expansion, technology and safety investment
- Worsens pavements outcomes compared to Prioritize Pavements/Current Approach

**Adapt to
Changing
Technology
and Climate**

**Improve
Mobility for All
Highway Users**

**Prioritize
Bridges**

**Prioritize
Pavements**
(Current Approach)

**Prioritize
Highway Capacity
Expansion**

**Focus on Safe
and Equitable
Communities**

“Highways should be safer for people to use, including for walking and bicycling. Improvements on highways should support strategies for reconnecting divided communities and other livability improvements.”

Focus on Safe and Equitable Communities

- Upside

- Increases funding for safety
- Focuses more funding on urban highway projects and community-based improvements
- Focuses more funding on pedestrian, bike, transit-supportive improvements
- Provides some added funds for climate resilience and technology

- Downside

- Limits mobility, capacity expansion investment
- Reduces pavement funding and worsens outcomes
- Limits bridge funding and worsens outcomes



**Adapt to
Changing
Technology
and Climate**

**Improve
Mobility for All
Highway Users**

**Prioritize
Bridges**

**Prioritize
Pavements**
(Current Approach)

**Prioritize
Highway Capacity
Expansion**

**Focus on Safe
and Equitable
Communities**

“In the future, there needs to be fewer delays and less congestion. Population continues to grow and MnDOT should be planning for and accommodating the increase in vehicle traffic.”

Prioritize Highway Capacity Expansion



- Upside

- Focuses more funding on vehicle mobility and capacity expansion
- Focuses more funding to freight including rest areas and economic development

- Downside

- Limits pavement and bridge funding and worsens outcomes
- Limits funding for safety, ped and bike, and community priorities
- Increases inequitable outcomes and impacts
- Potentially raises future emissions and vehicle miles traveled

“Minnesota is growing but we cannot build ourselves out of traffic congestion. In addition to addressing vehicle mobility, the highway system needs improvements for freight and for people walking, bicycling, and taking transit.”



Improve Mobility for All Highway Users

- **Upside**

- Focuses more funding on freight, ped, and bike mobility and safety improvements
- Focuses on localized/limited spot mobility improvements for drivers
- Provides some transit-supportive improvements
- Provides some added funds for climate resilience, technology, and urban highways

- **Downside**

- Limits pavement and bridge funding and worsens outcomes
- Limits capacity expansion investment



“I'd like to see the existing system maintained first before expanding or adding to the system. A smooth road surface when driving is most important. Roads which become rough should not stay that way for long.”

“Minnesota is growing but we cannot build ourselves out of traffic congestion. In addition to addressing vehicle mobility, the highway system needs improvements for freight and for people walking, bicycling, and taking transit.”

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Code: 6140 7647

[Go to Mentimeter results]

**What else
would you like
us to know?**



**Create your own
approach!**

Go to:

www.minnesotago.org/investment/

Highway Budget Tool

mn HIGHWAY BUDGET TOOL

MnDOT

Highway Budget Tool



How do we come up with our budget?

Like you, MnDOT has a budget for its expenses. We all make responsible decisions to spend money on our basic needs—shelter, food, clothing. MnDOT makes responsible decisions to spend money to maintain the state highway system to a basic level of performance. We have to make tough decisions on how to spend resources in the most efficient and effective ways. Planning activities like the [Minnesota State Highway Investment Plan](#) help guide these decisions.



Tell us about yourself!

Our goal is to get input from a wide range of people. We are collecting demographic information to identify who we're hearing from. Providing data is optional, however, by answering you will be helping MnDOT understand the needs and preferences of the diverse communities that MnDOT serves. Your responses will not be associated with you, personally.

Age

Are you of Hispanic descent?

What describes your racial/ethnic background?

What best describes how you think of yourself?

Zip Code

Get started →

Highway Budget Tool – How to start?

[← Back](#)

Choose how you want to start

Select a starter scenario



Take approximately 3 minutes to adjust the allocations for an established scenario



Prioritize Pavement / Current Approach



Prioritize Bridges



Adapt to Changing Technology and Climate



Prioritize Highway Capacity Expansion



Improve Mobility for All Highway Users



Focus on Safe and Equitable Communities

[Start with the minimum investment](#)



Take approximately 10 minutes to create a custom investment scenario from scratch

Add investments to see your baseline budget scenario.



AVAILABLE BUDGET

\$30 - 33B

Available Budget

\$23.5B
MINIMUM
INVESTMENT

\$23.5B

\$0

Start from the minimum levels...

Set your baseline budget

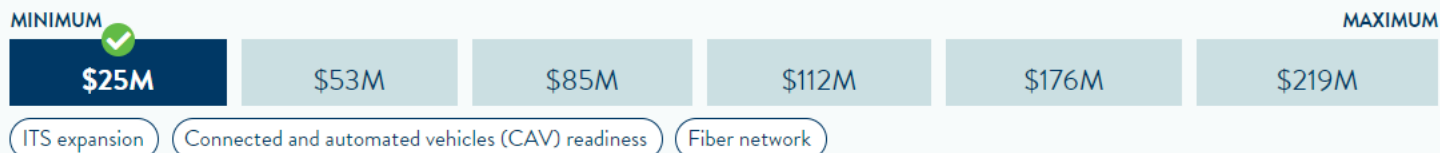
Pick and choose spending levels for different categories below. You can spend up to \$30-33 billion. This total is MnDOT's actual projected funding for the state highway system over the next 20 years.

[Choose another scenario](#) or [Start with the minimum investment](#)

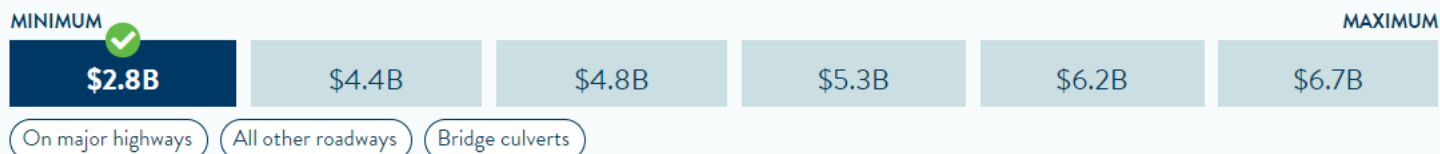
Add investments to see your baseline budget scenario.



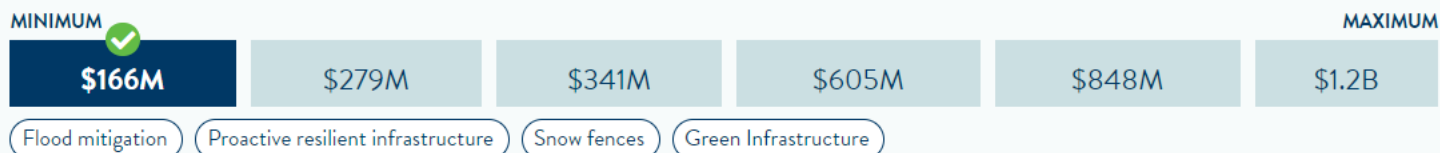
Advancing Technology
[Learn more](#)



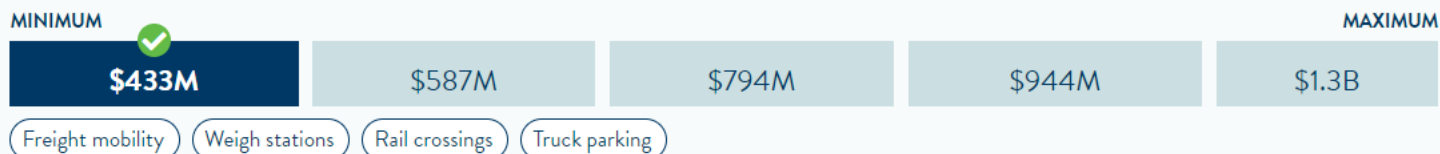
Bridge Condition
[Learn more](#)



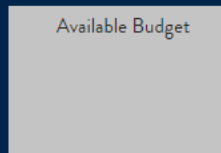
Climate Resilience
[Learn more](#)



Freight
[Learn more](#)



AVAILABLE BUDGET
\$30 - 33B



\$23.5B
MINIMUM INVESTMENT

\$0

\$23.5B

...or start from an approach

Set your baseline budget

Pick and choose spending levels for different categories below. You can spend up to \$30-33 billion. This total is MnDOT's actual projected funding for the state highway system over the next 20 years.

[Choose another scenario](#) or [Start with the minimum investment](#)

Your baseline budget scenario:
Prioritize Pavement / Current Approach



[Learn more](#)

[Continue](#) →

AVAILABLE BUDGET
\$30 - 33B

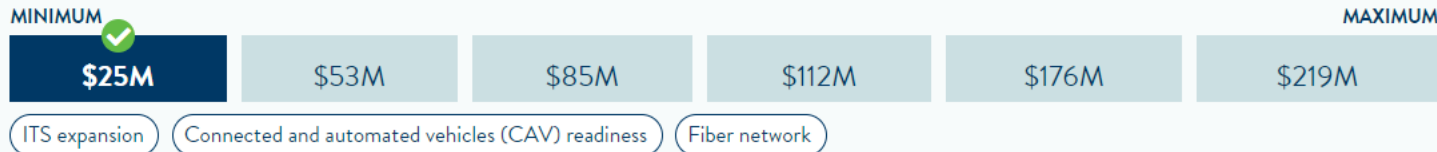
Available Budget

\$31.2B

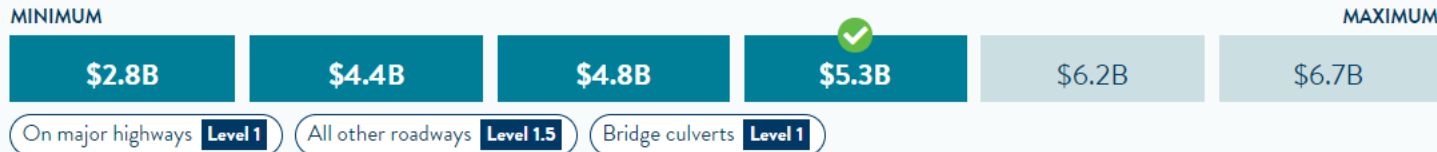
\$23.5B
MINIMUM INVESTMENT

\$0

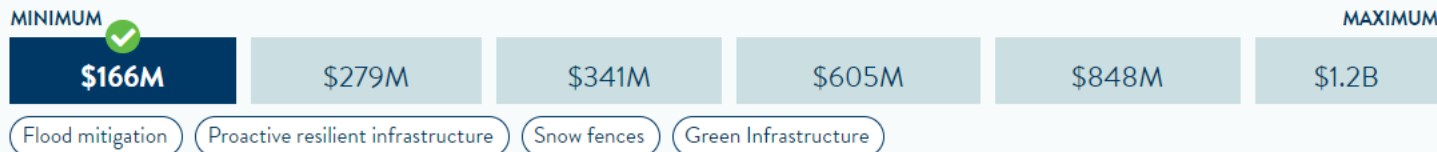
Advancing Technology
[Learn more](#)



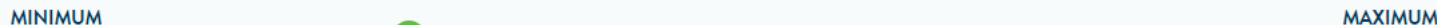
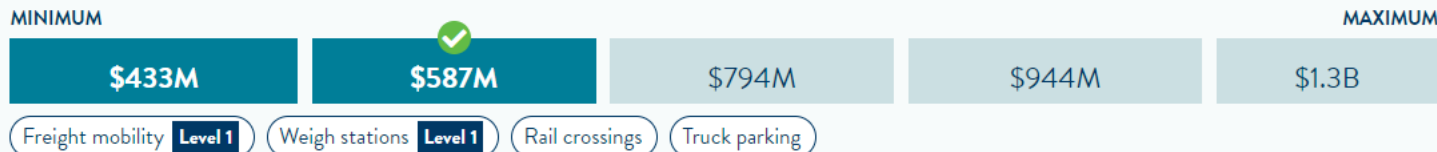
Bridge Condition
[Learn more](#)



Climate Resilience
[Learn more](#)



Freight
[Learn more](#)



Looking more details?

Set your baseline budget

Pick and choose spending levels for different categories below. You can spend up to \$30-33 billion. This total is MnDOT's actual projected funding for the state highway system over the next 20 years.

Choose another scenario ▼ or [Start with the minimum investment](#)

Your baseline budget scenario:

Custom



Continue →

AVAILABLE BUDGET

\$30 - 33B

Available Budget

\$32.2B

\$23.5B
MINIMUM INVESTMENT

\$0

Advancing Technology

Learn more

Advancing Technology focuses on implementing new technologies on the state highway system. Investments help prepare for transformative technology advancements such as connected and autonomous vehicles, traffic signal management, or advanced work zone safety. Improvements focus on expanding the MnDOT's fiber network along highways and ensure the state's intelligent transportation system infrastructure is maintained and expanded.

MINIMUM



MAXIMUM

On major highways **Level 1** All other roadways **Level 1.5** Bridge culverts **Level 1**

Bridge Condition

Learn more

MINIMUM



MAXIMUM

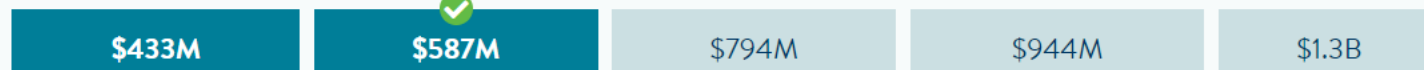
Flood mitigation **Level 2** Proactive resilient infrastructure **Level 3** Snow fences **Level 3** Green Infrastructure **Level 3**

Strategy Level 3 - Up to 475 miles of roadways with new/improved green infrastructure

Climate Resilience

Learn more

MINIMUM



MAXIMUM

Freight mobility **Level 1** Weigh stations **Level 1** Rail crossings Truck parking

Freight

Learn more

MINIMUM

MAXIMUM

Uh-oh, you went over!

Set your baseline budget

Pick and choose spending levels for different categories below. You can spend up to \$30-33 billion. This total is MnDOT's actual projected funding for the state highway system over the next 20 years.

Choose another scenario or Start with the

Your baseline budget scenario:

Custom



Advancing Technology
Learn more

Bridge Condition
Learn more

Climate Resilience
Learn more

Freight
Learn more

MINIMUM

\$25A

MINIMUM

\$2.8B

\$4.4B

\$4.8B

\$5.3B

\$6.2B

\$6.7B

MINIMUM

\$166M

\$279M

\$341M

\$605M

\$848M

\$1.2B

MAXIMUM

MINIMUM

\$433M

\$587M

\$794M

\$944M

\$1.3B

MAXIMUM

MINIMUM

MAXIMUM



Budget Exceeded!

You have exceeded your available budget!
Please reduce an investment.

Close

Budget Exceeded
You are \$0.6B over budget

AVAILABLE BUDGET

\$30 - 33B

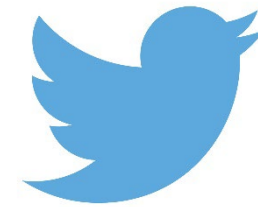
\$33.6B

\$23.5B
MINIMUM INVESTMENT

\$0

Help us spread the word!

- Share the link to the online investment budgeting tool
www.minnesotago.org/investment/
- Follow MnDOT on social media and share MnSHIP posts
- Sign up for e-mail updates
- Request a presentation for your organization
- We're also traveling around the state attending community events



Timeline

- **Now to end of September** – 1st public engagement period
- **Fall 2022** – Compile a draft investment direction
- **Winter 2023** – 2nd public engagement period
 - Present and gather feedback on draft investment direction
 - Identify priorities for +\$2 B and +\$6 B increasing revenue investment directions
- **Spring/Summer 2023** – Compile draft plan and seek public comment
- **Late Summer 2023** – Adopt final plan

Questions?

Thank you again!

Brad Utecht

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651-366-4835

MINNESOTA  GO