DEPARTMENT OF TRANSPORTATION

2022 MCEA Summer Conference – State Aid Update

June 16, 2022

Topics

- Federal IIJA Update Elisa Bottos
- Path Web Demo Bill Meinholz
- 8820: State Aid Design Advisory Committee and Visualization Tool Mark Vizecky
- LPP Update Mark Vizecky
- Status of state funded programs Marc Briese
- Limited Use Permits / Master Maintenance Agreements Update Ted Schoenecker
- Other Miscellaneous Items Ted Schoenecker

Infrastructure Investment and Jobs Act

Elisa Bottos | Federal Aid Project Delivery Engineer

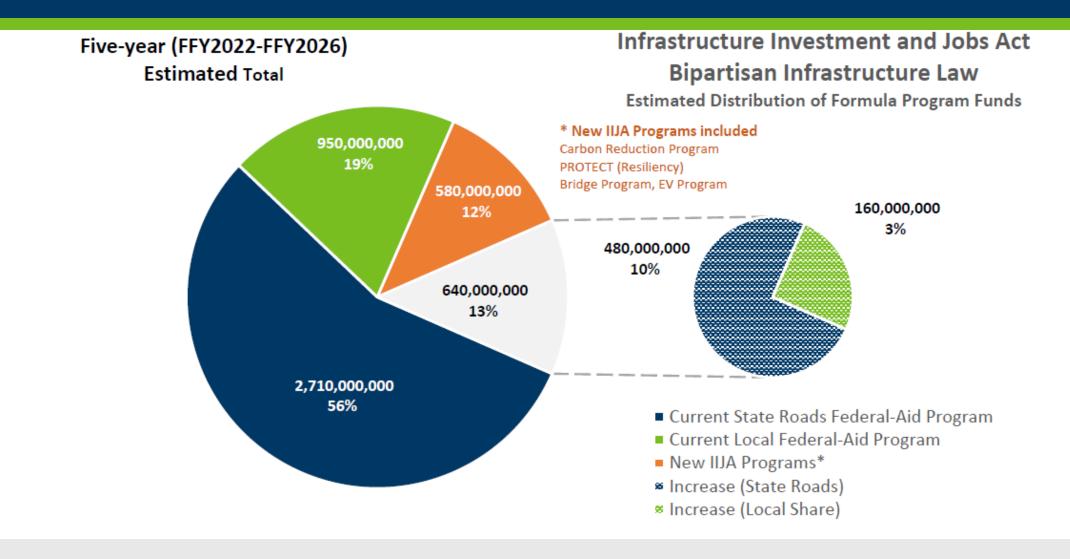


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Bipartisan Infrastructure Bill

The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as, the "Bipartisan Infrastructure Law") (PDF) is a once-ina-generation investment in our infrastructure that will help grow the economy, enhance U.S. competitiveness, create good jobs, and build our safe, resilient, and equitable transportation future.

Comparison of FAST Act and IIJA Formula Program Funds



FFY22 Apportionment to Minnesota

Formula distribution varies by federal program, providing greater flexibility for some programs and less flexibility for other programs

				Existing PUW					MPOs	New (PUW)	New (CRW)	New (CRW)	New (CRW)	Special
Distribution based on FHWA Appropriation Memo	National Highway Performance Program	Surface Transportation Block Grant Progam	Surface Transportation Block Grant- Transportation Alternatives	Highway Safety Improvement Progfram / Section 164 Penalty	Railway Highway Hazard Elimination / Railway Highway Protective Devices	Congestion Mitigation & Air Quality	National Highway Freight Program	Statewide Planning & Research	Metropolitan Planning	Bridge Formula Program	Carbon Reduction Program	Promoting Resilient Operations for Transformative , Efficient, and Cost-saving Transportation	National Electric Vehicle Infrastructure Formula Program	Construction of Ferry Boats and Ferry Terminal Facilities Formula Program
	NHPP	STBG	STBG-TA	HSIP	RAIL	CMAQ	NHFP	SP&R	PLANNING	BFP	CRP	PROTECT	NEVI	FBP
Statewide	446,000,000	81,000,000	11,000,000	64,000,000	7,000,000	-	22,000,000	16,000,000	6,000,000	55,000,000	7,180,000	23,000,000	10,000,000	-
Population Greater than 200,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Minneapolis—St. Paul	-	54,000,000	8,000,000	-	-	-	-	-	-	-	6,660,000	-	-	-
Population 50,000 to 200,000	-	9,000,000	1,000,000	-	-	-	-	-	-	-	-	-	-	-
Duluth	-	-	-	-	-	-	-	-	-	-	230,000	-	-	-
Fargo	-	-	-	-	-	-	-	-	-	-	110,000	-	-	-
Grand Forks	-	-	-	-	-	-	-	-	-	-	20,000	-	-	-
La Crosse	-	-	-	-	-	-	-	-	-	-	10,000	-	-	-
Mankato	-	-	-	-	-	-	-	-	-	-	140,000	-	-	-
Rochester	-	-	-	-	-	-	-	-	-	-	270,000	-	-	-
St. Cloud	-	-	-	-	-	-	-	-	-	-	280,000	-	-	-
Population 5,000 to 50,000	-	13,000,000	2,000,000	-	-	-	-	-	-	-	1,570,000	-	-	-
Population less than 5,000	-	33,000,000	5,000,000	-	-	-	-	-	-	-	4,030,000	-	-	-
Recreational Trails	-	-	2,000,000	-	-	-	-	-	-	-	-	-	-	-
Off-System Bridge	-	8,000,000	-	-	-	-	-	-	-	10,000,000	-	-	-	-
Special	-	-	-	-	-	34,000,000	-	-	-	-	-	-	-	1,000,000
Total	446,000,000	198,000,000	29,000,000	64,000,000	7,000,000	34,000,000	22,000,000	16,000,000	6,000,000	65,000,000	20,500,000	23,000,000	10,000,000	1,000,000

Grand Total

Formula Programs

- National Highway Performance Program
- Surface Transportation Block Grant
- Transportation Alternatives
- Highway Safety Improvement Program
- Railway Highway Hazard Elimination National Electric Vehicle
- Congestion Mitigation & Air Quality

- National Highway Freight Program
- Bridge Formula Program
- Carbon Reduction Program
- Promoting Resilient Operations for Transformative Efficient and Costsaving Transportation-PROTECT
- National Electric Vehicle Infrastructure Program-NEVI

Programming Update Workgroup

- The purpose of the PUW is to make recommendations to TPIC regarding:
- What are the impacts and needed changes to the programming process in Minnesota resulting from new federal transportation funding laws.
- Define the various roles and responsibilities for the programming process within MnDOT, the ATPs, and external stakeholders.
- What changes or updates should be considered to the distribution of federal and state capital funding (target formulas) across the state.

Programming Update Workgroup

- Ensure clear, transparent, and consistent communication of the programming process and accompanying guidance across the State.
- Ensure local transportation stakeholders have a seat at the table in the federal funding decision making process as required by federal rules.
- Engage MnDOT district staff with staff from the central offices to help determine which type of projects are best programmed at a statewide level versus at the district level.

PUW Members

Bot, Steve	GM Cities	sbot@ci.st-michael.mn.us
Chicka, Ron	GM MPOs	rchicka@ardc.org
Culver, Marc	Metro Cities	Marc.Culver@cityofroseville.com
Freese, Lisa	Metro Counties	lfreese@co.scott.mn.us
Heiser, Deb	Metro Cities	dheiser@stlouispark.org
Law, Bryan	GM MPOs	law.bryan@co.olmsted.mn.us
MacPherson, Joe	Metro Counties	joe.macpherson@co.anoka.mn.us
Peterson, Steve	Met Council	steven.peterson@metc.state.mn.us
Schroeder, Troy	RDC	tschroeder@nwrdc.org
Sehr, Mark	GM Counties	Mark.Sehr@co.rock.mn.us
Vennewitz, Amy	Met Council	amy.vennewitz@metc.state.mn.us
Welle, John	GM Counties	jwelle@co.aitkin.mn.us
Stadheim, Joe	GM Cities	joes@newulmmn.gov
Brown, Levi	Tribal Representative	levi.brown@state.mn.us
Vacant	Tribal Representative	
Emanuele, Andrew	FHWA	andrew.emanuele@dot.gov
Retzlaff, Bobbie	FHWA	roberta.retzlaff@dot.gov
Griffith, Ben	GM MPOs - Alt.	griffith.ben@co.olmsted.mn.us
Jen Nordin	GM Counties - Alt.	jed.nordin@co.hubbard.mn.us
Jen Desrude	Metro Cities - Alt.	jen.desrude@burnsvillemn.gov

STBG Population Groups Comparison FASTACT to IIJA

FASTACT

IIJA

- ➢Areas of less than 5,000 population
- Areas of population from 5,000 to 200,000
- Areas of population greater than 200,000

- ► Less than 5,000 population
- > 5,000 to 50,000 population
- > 50,000 to 200,000 population
- ➢ Greater than 200,000 population

Estimated FFY2022 Appropriations

- Increase over STIP Target Level: \$135,000,000
 - \$49,000,000 Local Federal-aid
 - \$86,000,000 MnDOT Federal

• Current Formula Appropriations to Minnesota: \$733M



A. Distribute by target to ATPs and Districts

B. MnDOT uses it and adjust ATP and District targets in FY2023-FY2026

C. Met Council and State Aid determines distribution for local federal-aid projects

D. Hybrid model

Bridge Funding

STPG Bridges Off-System increased with additional allocation not previously spent= lots of off system bridge funds.

Bridge Formula Program \$60 Million per year

- 15% for Off-System (\$9+ million)
- Recommended Split of BFP 70/30 MnDOT/Locals
- Should MnDOT use BFP funds and increase local STBG targets? Making more flexible funding for locals. Should this funding still be directed to bridges?
- If locals keep the BFP how should it be distributed?

FY 2023 Options

- A. Distribute by target to ATPs and Districts
- B. MnDOT uses it and adjust ATP and District targets in FY2024-FY2026
- C. Met Council and State Aid determines distribution for local federalaid projects
- D. Hybrid model

Discretionary Grants- Currently Open for Application

• Safe Streets for All Grants

- Local and tribal governments to reduce crashes and fatalities, especially for cyclists and pedestrians
- Develop or update a comprehensive safety action plan (Action Plan).
- Conduct planning, design, and development activities in support of an Action Plan.
- Carry out projects and strategies identified in an Action Plan.
- Application deadline September 15, 2022

Discretionary Grants- Currently Open for Application

• Bridge Investment Program

- \$20 Million is available nationwide in 2022 for Planning, feasibility analysis, and revenue forecasting associated with the development of a project.
- Planning Applications must be submitted by 11:59 p.m. EDT on July 25, 2022.
- \$2.36 Billion is available nationwide in 2022 for Bridge Projects and Large Bridge Projects.
- Bridge Project Applications(<\$100 M) must be submitted by 11:59 p.m. EDT on September 8, 2022.
- Large Bridge Project Applications(>\$100M) must be submitted by 11:59 p.m. EDT on August 9, 2022.

Discretionary Grants- Upcoming Solicitations

- Advanced Transportation Technology & Innovative Mobility Deployment
- Charging and Fueling Infrastructure Grants
- Congestion Relief Program
- National Culvert Removal, Replace & Restoration Grant
- Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT)
- Railroad Crossing Elimination Program
- Strengthening Mobility and Revolutionizing Transportation (SMART)

Discretionary Grants- Closed Solicitation for 2022

- National Scenic Byways Program Grants
- Rebuilding American Infrastructure with Sustainability and Equity- RAISE Grants
- Multimodal Projects Discretionary Grants- MPDG
 - National Significant Freight and highway Projects-INFRA
 - National Infrastructure Project Assistance-MEGA
 - Rural Surface Transportation Grant- Rural

Latest Information

State Aid for Local Transportation IIJA website:

TRANSPORTATION	<u>(1)</u>
	Search MnDOT A to Z General Contacts
ate Aid for Local Transportation rtisan Infrastructure Bill - Infrastructure Investments and Jobs Act	
me Administration Programs CSAH MSAS Traffic Safety CAV Project Delivery Pavement Construction Training Contact Us	
Bipartisan Infrastructure Bill - Infrastructure Investments and Jobs Act The Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as, the "Bipartisan Infrastructure Law") (PDF) is a once-in-a-generation investment in our infrastructure that will help grow the economy, enhance U.S. competitiveness, create good jobs, and build our safe, resilient, and equitable transportation future. Discretionary grant programs	Resources • FHWA Bipartisan Infrastructure law website • Minnesota fact sheet • Guidebook to the Bipartisan Infrastructure Law (PDF) • ASHTO comprehensive analysis of IIJA (PDF) • Bill overview - overview of highway provisions (PowerPoint)
<u>Multimodal Projects Discretionary Grants (MPDG)</u> Nationally Significant Freight and Highway Projects (INFRA) National Infrastructure Project Assistance (Mega) Rural Surface Transportation Grant (Rural) <u>National Scenic Byways Program Grants</u>	
RAISE Grants Safe Streets for All Grants Additional information to be available when notice of funding opportunity (NOFO) released. Advanced Transportation Technology & Innovative Mobility Deployment Bridge Investment Program	
Charging and Fueling Infrastructure Grants Congestion Relief Program National Culvert Removal, Replace & Restoration Grant Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT)	
Railroad Crossing Elimination Program	

Changes from IIJA

- Buy America to include manufactured materials and construction materials (waiver until November 2022)
- Preliminary Engineering Payback rule
- Streamlining of 4(f) rules, shorter review times
- Alternative Fuel Corridors



Pathweb

Bill Meinholz | State Aid Projects Engineer



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MnDOT County Testing Personnel

- Bill Meinholz State Aid
- Loren Hill State Aid
- Melissa Cole Pavement Management Engineer
- Mark Resemius Van Supervisor
- Dave Larson County Van Operator
- Stephanie Clark County Van Operator
- Leonard Nordstrom Pavement Condition Analyst

Data Collection

- Pavement condition data is collected on all State Highways and one-half of County State Aid Highways on an annual basis.
- Testing involves driving each road, in both directions, and measuring the following:
 - Pavement Roughness (IRI)
 - Rutting and Faulting
 - Digital images of the right-of-way and pavement surface
 - Cracking and other pavement distress (Increasing direction of 2-lane roads and both directions of 4+lane roads)
- Each year, approximately 21,000 lane-miles of state highway and 32,000 lane-miles of county highways are driven. 43 or 44 Counties per year.

Equipment (PathRunner Vans)



Schedule for MnDOT Lab

- Late in year (December)
 - Email request to counties for changes to their system.
- Spring Fall (May November) Data Collection



- Collection can begin once frost is out of the ground.
- Operators may contact counties with questions prio to or during collection.
- Summer Winter (June following February) Data Processing



Training & Demo

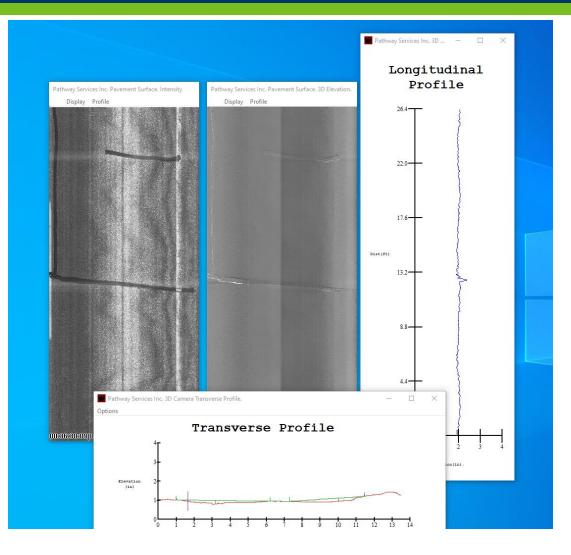
- Two training sessions were offered in February 2022
- Is there interest in more sessions this summer/fall or in the offseason?
- https://pathweb.pathwayservices.com/mn/



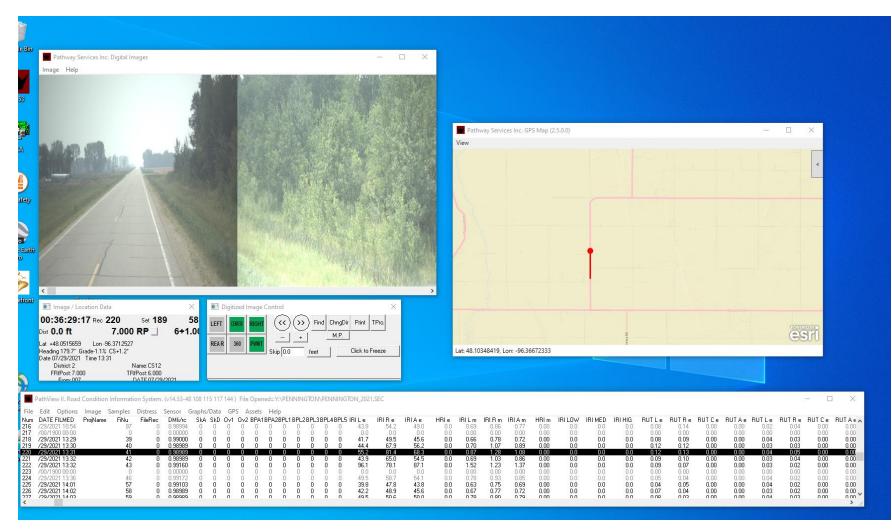
Front / Side Digital Images



3D Lasers (Distresses)



Global Positioning System (GPS)





State Aid Design Advisory Committee and Visualization Tool



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Committee Role

Why is change needed?

- External Influence (Political/Legislative)
- SA Operations
- Changing Standards (or push to change)
- Appropriate Application
- Less value/importance of professional engineers
- Maintain a "safe" system
- Unknowns what if there are no Rules/Standards?

Potential changes?

- Way State Aid Rules/Standards are 💊 presented
- Process for updating Rules/Standards
- Education/Outreach for all audiences
- Engineer Training



Approaches to potential changes?

- Two-Day Training for engineers
- Repackage the Rules/Standards
- Review/Update Stakeholder Input Process



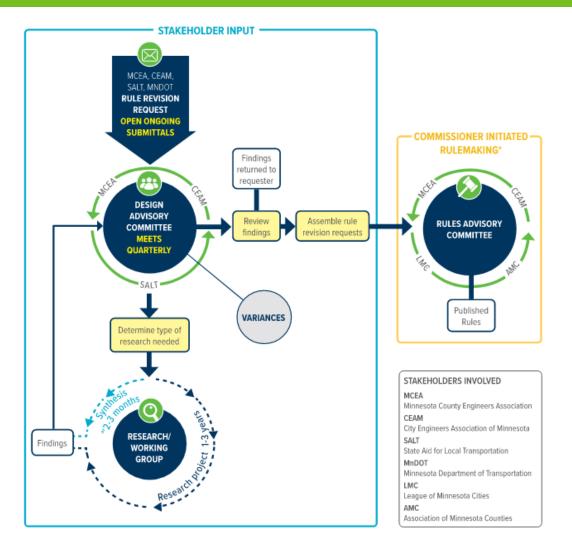
6/21/2022

Committee Formation

State Aid Design Advisory Committee was established:

- To streamline and improve lead and response time to design revision requests and concerns from agencies.
- To continue to support design flexibility.
- To maintain the engineering standards.
- Guide change through research. Not to directly make changes to rules.

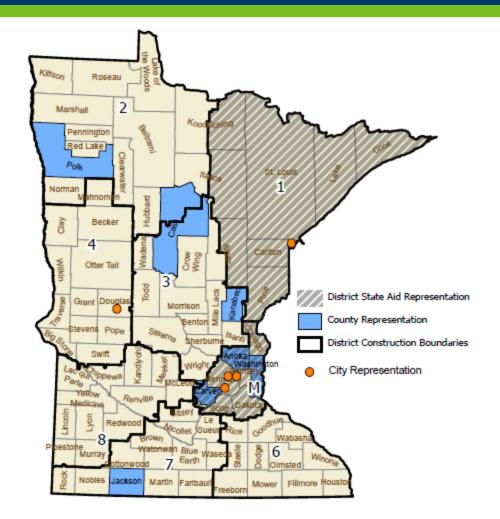
Design Standards' Review Process



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Committee Representation

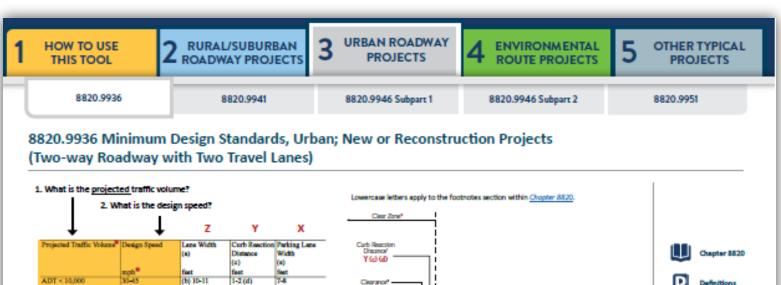
- Led by the MnDOT Division of SALT and supported by a consulting team
- Request for volunteers June 2020
 - 19 total members
 - 8 County, 5 City (1 City of the First Class), 5 State Aid, 1 Consultant
 - 9 rural and 4 urban members

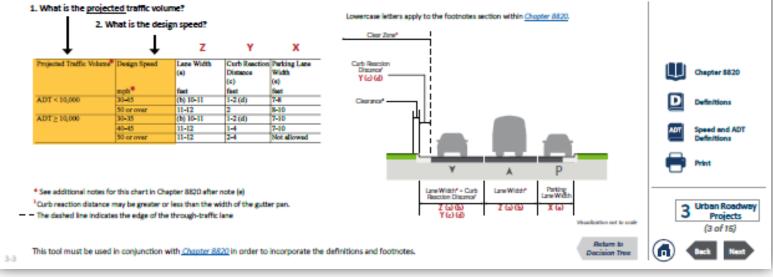


Visualization Tool Layout

The Tool is organized by:

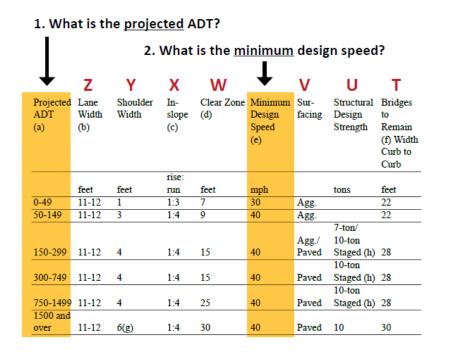
- How to use this tool
- Rural/suburban roadway projects
- Urban roadway projects
- Environmental route projects
- Other typical projects





Visualization Tool Design

Includes a general cross section/plan views of the roadways is provided , but it is the designers responsibility to use engineering judgement to determine the applicable design elements in the charts and notes based on specific project constrains.



Must see <u>Chapter 8820</u> to read the footnotes.



Lowercase letters apply to the footnotes section within Chapter 8820.

What is Next for the SA DAC?

- Review definition of "suburban"
- Consider adjust to widths required for continuous left turn lanes Review the need for separate suburban standards
- Review note (c) on approach roadway side slopes for Part 8820.9920
- Back in angle parking for Part 8820.9961
- Review distance between traffic lane and parking stall in Part 8820.9961 Review the need for separate urban core standards
- Review requirement for one-way streets to have two through-traffic lanes for 8820.9936



Local Partnership Program (LPP)

Mark Vizecky | State Aid Operations Engineer



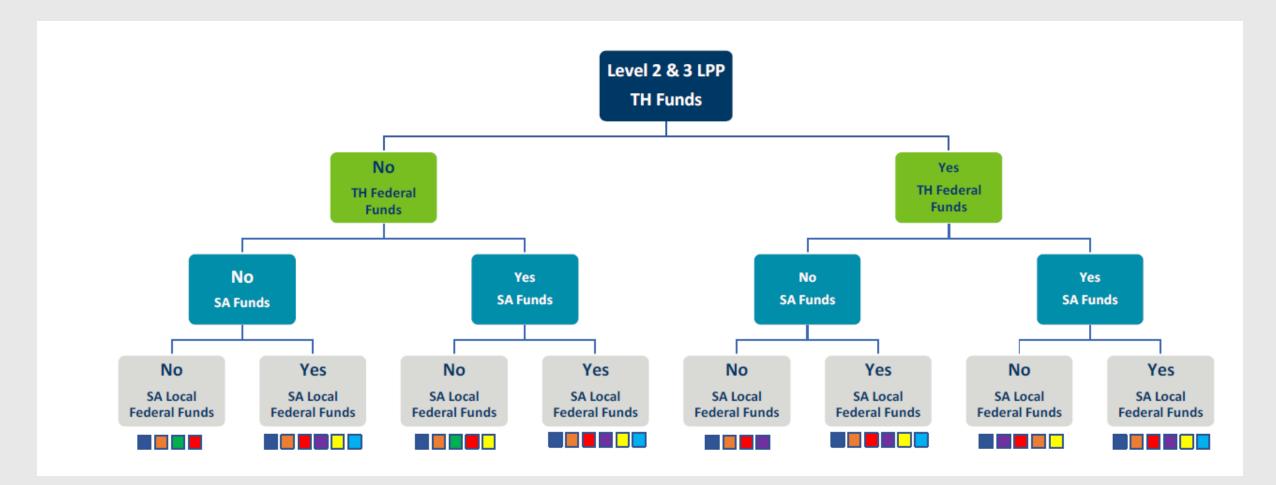
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LPP Tools and Resources

- Plan Signature Flow Chart
- Process Flow Chart
- Project Checklist
- Cost Participation Policy: Statewide District Workshops

• www.dot.state.mn.us/stateaid/lpp.html

Plan Signature Flow Chart



Process Flow Chart

		and One Page Summary	ger.		
Step 0: Solicitation					
LPA (Local Public Agency) 1. Identify Needs and Develop Project Scope 2. Verify Proposal Requirements with MnDOT District 3. Submit Project Proposal 4. Confirm Expected Project Responsibilities & Cost Participation with LPA Decision Makers	Iterative Project Discussion between LPA, MnDOT, and Functional Groups	LPP Manager/DSAE/DE (Local Partnership Progam Manager/District State Aid Engineer/ District Engineer) 1. Provide Solicitation Notice 2. DSAE & MnDOT Functional Groups Provide Feedback on Submittal 3. District Convene Committee to Evaluate and Select Projects	60 - 90		
4. Program projects in State Transportation Improvement Plan (STIP)					
Step 1: Project Planning LPA / LPP Manager/DSAE					
1. District holds Kick-Off Meeting with LPA, MnDOT Offices and Functional Groups to Review Project Requirements, Schedule, Scope and Estimate Considerations: Project level and Geometric Layout Need Applicable Studies (i.e Traffic, Environmental, Hydraulic, Material, Etc.). Applicable Coordination and Reviews for the Project Schedule (ADA, Bridge, Utilities, Agreement, Geometric Design Support Unit, ROW, Etc.).			7-14		
\mathbf{V}					
Step 2: Project Development - Pre-Design Items (As Needed)					

Project Checklist

		LPP Che	ecklist			
Step 0 - Project Administration						
0		LPA	LPP Manager/DSAE/DE (Local Partnership Progam Manager/District State Aid Engineer/ District Engineer)			
Solicitation		Solicitation	Administrative and Programming			
1 Identify Needs and Develon Project Scone		1. Identify Needs and Develop Project Scope.	 Provide Solicitation Notice - DSAE may provide formal solicitation notification to local agencies requesting project proposals. 			
		2. Verify Proposal Requirements with MnDOT District ¹ Check your District's LPP Solicitation Guidance: http://www.dot.state.mn.us/stateaid/lpp.html				
 Submit Project Proposal. Submittal requirements vary so be sure to check your District's LPP Solicitation Guidance: http://www.dot.state.mn.us/stateaid/lpp.html 						
4. Confirm Project Responsibilities & Cost Participation with LPA Decision Makers .		4. Confirm Project Responsibilities & Cost Participation with LPA Decision Makers .	 Hold Internal District Scope Discussion Meeting² - Include Operations, Engineering Services, and State Aid to discuss geometric level, environmental requirements, ROW requirements, RR requirements, etc. 			
			 ATP Approval of Selected Projects - District identifies project in ATIP for STIP. Request Project Number/Enter Project in Tracking and CHIMES 			
		¹ Selected projects should provide a clear benefit to the TH system and the local community.	² Suggestion for early coordination but varies by District.			
	-	Step 1 - Proje	ct Planning			
		LPA	District LPP Manager/DSAE			
1.1	Kick-Off Meeting	1-8. Local Public Agency attends meeting with DSAE/LPP Project Manager	LPP Manager Schedules and Facilitates Kick-Off Meeting - Invites Functional Group Staff as appropriate to cover the following items (1-8):			
	1. LPA provides project scope to District LPP Manager. ¹ 1. Has the project scope been reviewed? Yes No 2. Does the project have additional funding sources (check all that apply)? Note: Additional funding sources could require separate agreements. Bridge projects need to funding eligibility requirements.		1. Has the project scope been reviewed?			
			□ Yes □ No			
			Note: Additional funding sources could require separate agreements. Bridge projects need to consider bridge			
			🖸 Federal ² 🔤 Local 🔤 State Aid 🔤 LBRP			
			C Town Bridge LRIP SRTS Earmark (Administered by			
			TH Funds (LPP) Other, Please Specify State Aid)			
			² Federally funded projects will need to meet the requirements as defined in the DCP Checklist AND the LPP program. http://www.dot.state.mn.us/stateaid/projectdelivery/pdp/dcp/dcp-checklist.pdf			
3. Will the project potentially require ROW? Note: ROW needs trigger additional requirements and reviews.						

LPP Tools and Resources

- Plan Signature Flow Chart
- Process Flow Chart
- Project Checklist
- Cost Participation Policy: Statewide District Workshops

• www.dot.state.mn.us/stateaid/lpp.html

State Funded Programs Update

Marc Briese | State Aid Programs Engineer



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Local Road Improvement Program

• No additional funding in 2022



Local Bridge Replacement Program

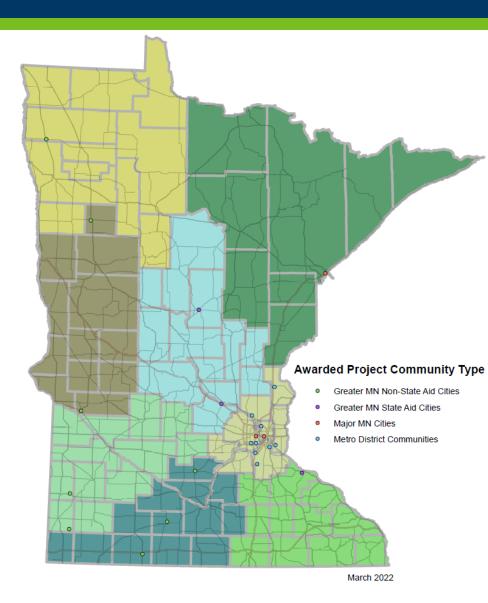
- No additional funding in 2022
- Expect ~\$12-13 million from MVLST in July/Aug
 - Primarily used for federal matches
 - Will apply to waiting list as possible
- Waiting list
 - 32 projects with total project cost of \$13 million
 - Requesting \$6 million in state funds

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Safe Routes to School

- No additional funding in 2022
- \$7.5 million in awards for 23 projects announced in late February 2022





Active Transportation

- No additional funding in 2022
- \$3.5M in general funds from June 2021
- Work since June with OTAT and stakeholders on defining parameters of program
- Solicitation to be released fall 2022
 - AT advisory committee meeting in June/July
 - Webinars in July/August



Shared Use Paths – From LUP to Agreement (Update)

Ted Schoenecker | State Aid Assistant Division Director



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Shared Use Paths – From LUP to Agreement

- Documentation of Local Shared Use Paths on T.H. ROW has historically been done through Limited Use Permits (LUP).
- Local Agencies have expressed a desire to use the Agreement process to document Shared Use Paths on T.H. ROW.
- SALT staff have had numerous discussions with MnDOT Land Management, Chief Council, and Cooperative Agreements to discuss how to change from the use of LUP's to Cooperative Maintenance Agreements for locally initiated shared use paths on MnDOT ROW
- SALT staff prepared a draft template Cooperative Maintenance Agreement for locally initiated Shared Use Paths for MnDOT review

Shared Use Paths – From LUP to Agreement

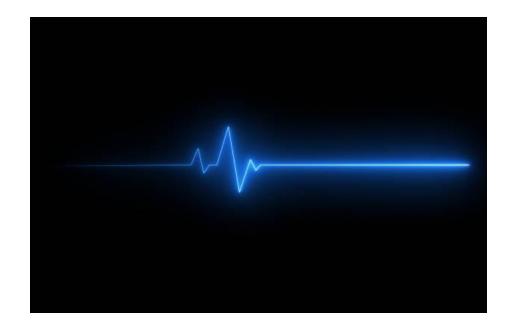
- MnDOT Land Management, Chief Council, along with Cooperative Agreements have reviewed and revised the template Cooperative Maintenance Agreement
- The draft template Cooperative Maintenance Agreement is now ready for local agency review and comment and has been sent to a representative sample of local agencies.
- A meeting has been set up for July 21 to discuss comments from local agencies regarding the draft template Cooperative Maintenance Agreement

Shared Use Paths – From LUP to Agreement

- The Cooperative Maintenance Agreement approach will be used when it is agreed upon that MnDOT will become the owner of the path following construction and the local agency providing the required maintenance
- LUP's will continue to be used when the local agency requests to maintain ownership of the path
- Comments/questions can be directed to Mike Scott of SALT at mike.scott@state.mn.us

Master Maintenance Agreement Status

- Identify the possibility of a master maintenance agreement between MnDOT and local agencies
- Started pilot with 4 counties St Louis, Freeborn, Blue Earth and Dakota
- Consultant hired to help
- Some meeting occurred but COVID slowed/stopped progress
- Extending contract with consultant to resuscitate this effort over the next year



Miscellaneous Items

Ted Schoenecker | State Aid Assistant Division Director



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State Funding for Local Road Safety

- Proposal to request state funding for local road safety (targeting general funding)
- Benefits of such a program could be:
 - State safety dollars would directly benefit agencies that are not currently able to follow federal requirements/process of HSIP
 - There would be less process and expense in developing/administering projects vs federal HSIP dollars
 - If structured similar to HSIP, it would be data-driven, meaning dollars are spent where they have the greatest chance to make a difference with life changing crashes
 - Depending on the amount of the program and where the greatest safety needs are, it could free up more dollars for MnDOT to participate in safety projects in partnership with local agencies
- Still lots to figure out, including:
 - How much \$ would the program include each biennium, and how it would affect the current split of HSIP \$ between State/Local (we wouldn't want that split to be part of the legislation and program, but it would have implications)
 - How the program would be administered and projects selected

Creation of MnDOT Disaster Assistance Contingency Account (DACA)

- The FHWA Emergency Relief Program declares that permanent emergency repairs are federally eligible for reimbursement at 80% with the remaining 20% to be a Local Public Agency (LPA) cost share.
- 2015 legislative session added MS 12.221, subdivision 6, clause 3:
 - (3) cost-share for federal assistance from the Federal Highway Administration emergency relief program under United States Code, title 23, section 125; and
- DPS does not agree that the cost share under this program are eligible for DACA funding.
- AMC/MCEA have sent a letter to the governor
- Proposal to create a MnDOT DACA (administered by state aid)
 - Initial (1x) funding of \$3.3M
 - On-going base funding of \$1M per year



Thank you!



MnDOT State Aid Bridge Emergency Vehicle Bridge Map Tool – 2022 MCEA Summer Conference



Introduction

GENERAL SCOPE

MnDOT Bridge State Aid, to fulfill FHWA requirements, decided to create a mapping tool in GIS to identify bridges that may not have the capacity to support emergency vehicles.

FUNDING

Creation of the tool funded through the Specialized Hauling Vehicle (SHV) contract #8.

CURRENT STATUS OF EMERGENCY VEHICLE LOAD RATINGS

- Nearly all bridge 'span' structures have been rated for emergency vehicles.
- SHV contract #8 (& future contracts) looking at the rating of culvert structures.

CURRENT STATUS OF EMERGENCY VEHICLE MAPPING TOOL

• Mapping tool has been developed and reviewed by the County Engineers Bridge Committee.



Background



Federal Highway Administration

Memorandum

Subject: <u>ACTION</u>: Load Rating for the FAST Act's Emergency Vehicles Date: November 3, 2016

On December 4, 2015, the President signed into law the *Fixing America's Surface Transportation Act* (FAST Act) (Pub. L.114-94). Section 1410 of the FAST Act amended 23 U.S.C. 127, *Vehicle weight limitations—Interstate System*, by revising the weight limits for certain vehicles on the Interstate System. The purpose of this memorandum is to provide guidance on maintaining compliance with the load rating and posting requirements of 23 CFR Part 650—specifically for the amended weight limits in 23 U.S.C. 127(r), *Emergency Vehicles*, for bridges on the Interstate System and within reasonable access to the Interstate System. Reasonable access is defined in a September 30, 1992 Non-Regulatory Supplement to 23 CFR Part 658 as at least <u>one-road-mile</u> from access to and from the National Network of highways, which includes the Interstate System, or further if the limits of a State's reasonable access policy for food, fuel, repairs, and rest extend to facilities beyond one-road-mile.



Background

If a State law allows or exempts emergency vehicles to operate without restriction off the Interstate System as legal loads, 23 CFR 650.313(c) requires bridges on these highways to be load rated and posted, if necessary, for these vehicles. Unless State law relies on a different definition of emergency vehicle than that included in the FAST Act (23 U.S.C. 127(r)(2)), States can perform load ratings on these highways using the two emergency vehicle configurations included in this memorandum.

2021 Minnesota Statutes

169.84 LOAD LIMIT ON BRIDGE.

Subject to the limitations upon wheel and axle loads prescribed in this chapter, the gross weight of any vehicle or combination of vehicles driven onto or over a bridge on any highway shall not exceed the safe capacity of the bridge, as may be indicated by warning posted on the bridge or the approaches thereto.

169.829 WEIGHT LIMITS NOT APPLICABLE TO CERTAIN VEHICLES.

Subd. 4. Certain emergency vehicles. (a) The provisions of sections <u>169.80</u> to <u>169.88</u> governing size, weight, and load do not apply to a fire apparatus, a law enforcement special response vehicle, or a licensed land emergency ambulance service vehicle.



Background

2021 Minnesota Statutes

15 ft

169.829 WEIGHT LIMITS NOT APPLICABLE TO CERTAIN VEHICLES.

(b) Emergency vehicles designed to transport personnel and equipment to support the suppression of fires and to mitigate other hazardous situations are subject to the following weight limitations when operated on an interstate highway: (1) 24,000 pounds on a single steering axle; (2) 33,500 pounds on a single drive axle; (3) 52,000 pounds on a tandem rear drive steer axle; and (4) 62,000 pounds on a tandem axle. The gross weight of an emergency vehicle operating on an interstate highway must not exceed 86,000 pounds.

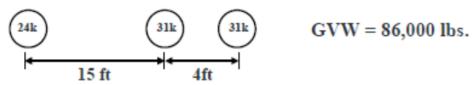
GVW = 57,500 lbs.



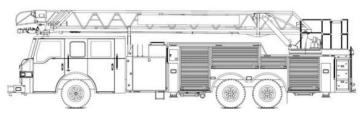
CUSTOM CHASSIS PUMPER – SINGLE REAR AXLE





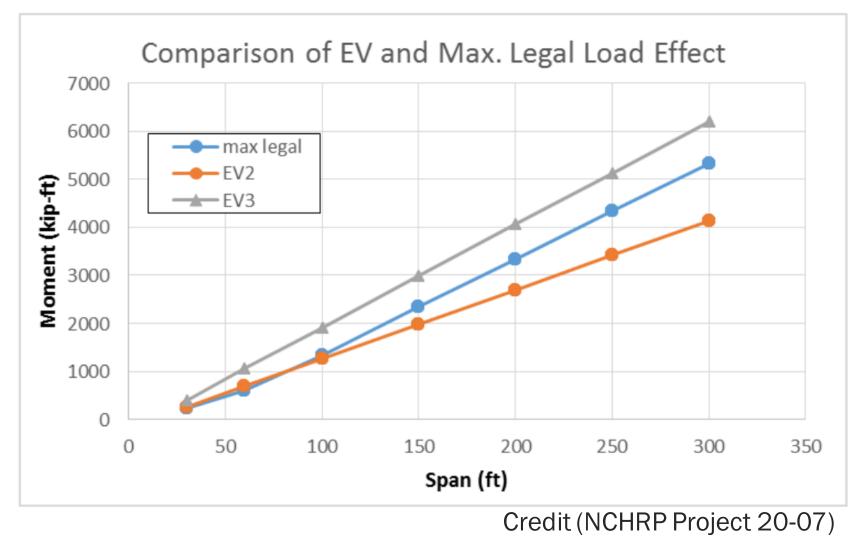


AERIAL LADDER – TANDEM REAR AXLE





Why do EV's Matter?



SRF

FHWA Compliance

When a load rating results in an operating rating factor less than 1.0 for the emergency vehicles, the bridge shall be appropriately posted for both the governing single axle weight limit and tandem axle weight limit derived from the above emergency vehicle configurations, i.e., Types EV2 and EV3 (23 CFR 650.313(c)). When posting is necessary, the following sign format, using the appropriate weight limits, should be considered:





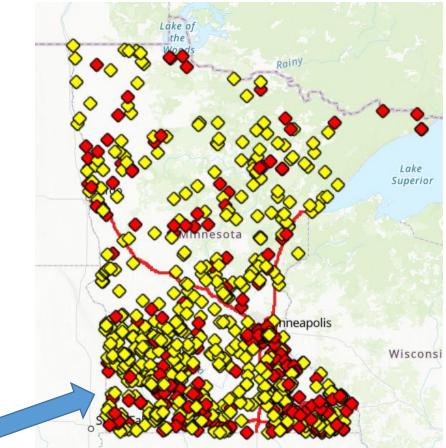
Purpose of Mapping Tool

- FHWA is allowing mapping tool in lieu of posting sign!
- Don't want to post local bridges
 - Multiple sign types are confusing
 - Extra burden on owners.
- Inform Fire Departments (safe Emergency Routes)
 - Needs to be simple (non-technical people can understand)
- Extra tool for owners to prioritize rehab/replacement



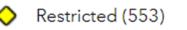
Mapping Tool

- ~2000 Locally Owned Bridges in MN Require Posting per FHWA (so far, more ratings to come)
- What about the 1-Road Mile posting requirement?
- Why Two Icon Colors?





Map Layers: Restricted Bridges



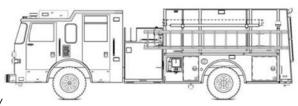
Severely Restricted (232)



GVW < 28.75 Tons

(Corresponds to Weight of typical truck w/ single rear axle - e.g. EV2)

Restricted



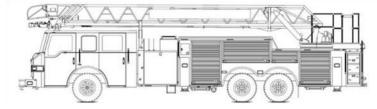
SINGLE REAR AXLE



Restricted

TANDEM REAR AXLE



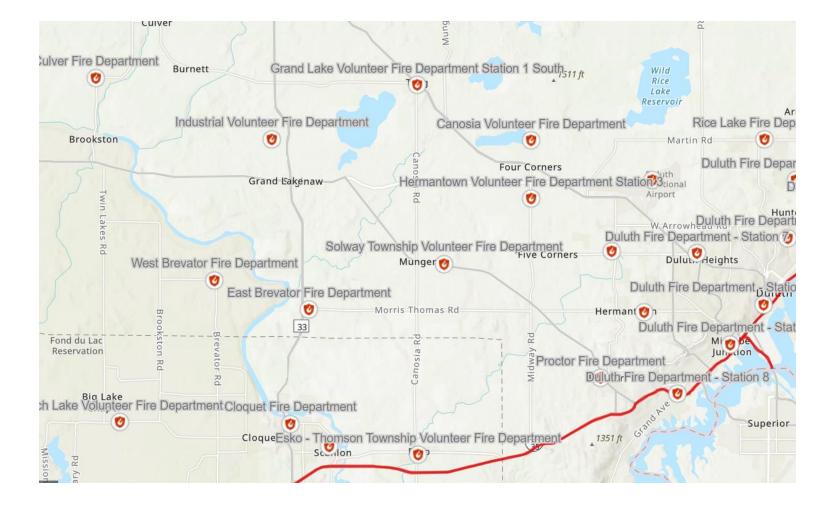




Restricted

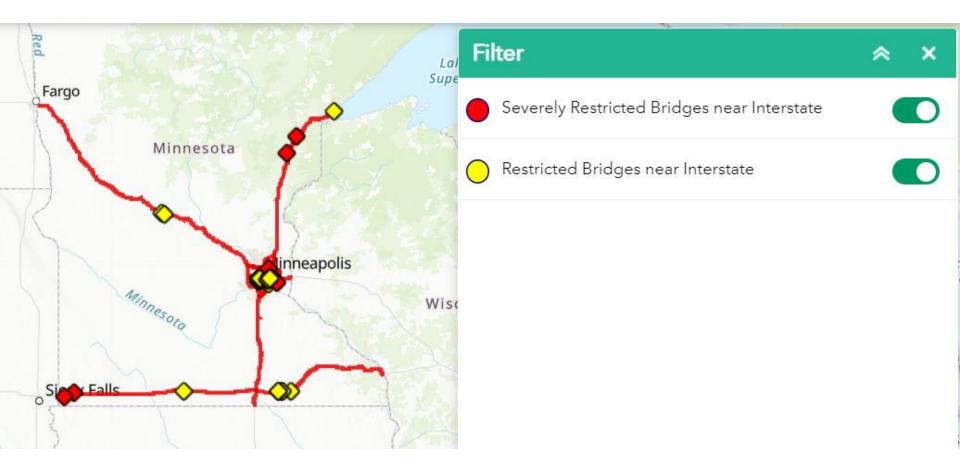


Map Layers: Fire Stations



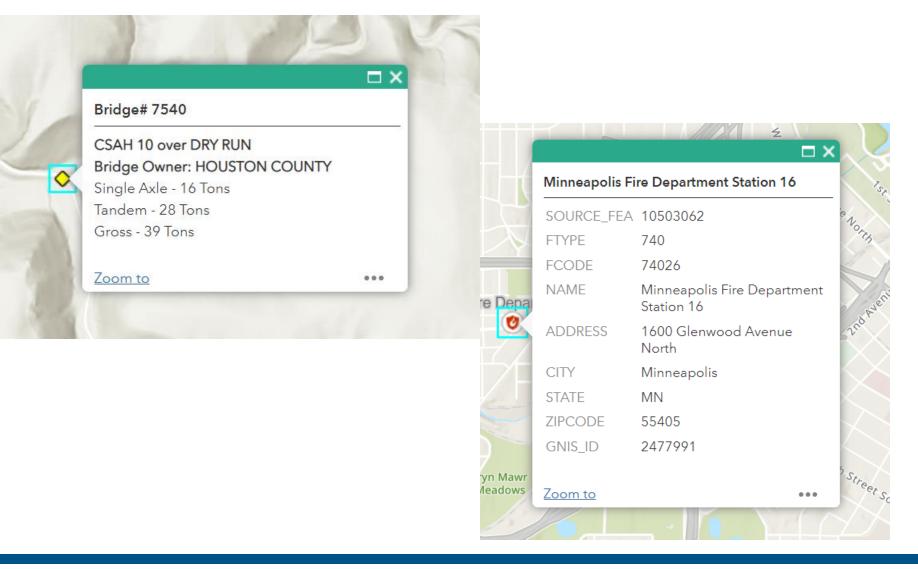


Map Elements: Interstate Filter



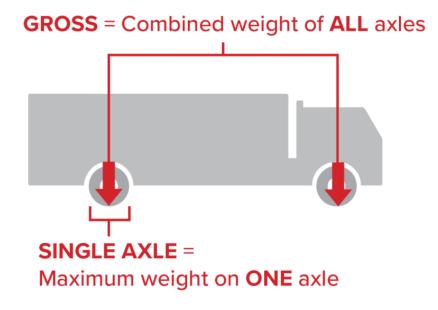


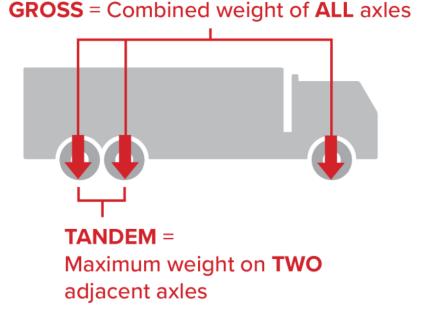
Map Elements: Pop-Up Info





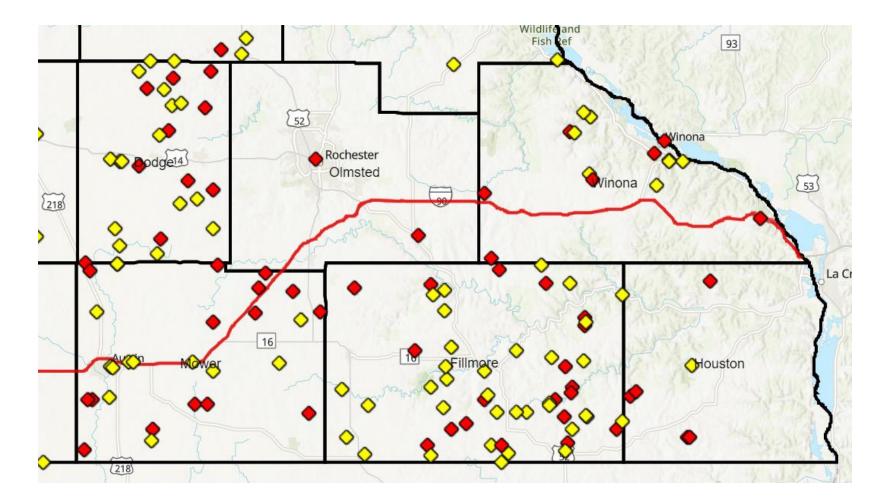
Map Elements: Vehicle Definition







Map Elements: County Boundaries





Map Link

DEPARTMENT OF TRANSPORTATION

(511)

Search MnDOT A to Z General Contacts

Bridge State Aid

Home Resources Tools Forms Load Rating Newsletters Project Photos Contact Us

What we do

We review county, township and municipal bridge plans to help ensure compliance with current MnDOT Bridge Office specifications and policies, AASHTO specifications and the state building code. We review plans for: vehicular bridges and tunnels, pedestrian bridges, tunnels and boardwalks, culverts, retaining walls, bridge rehabilitations and repair projects, parking ramps, and other related structures. In addition to reviewing local bridge plans, we provide technical assistance in design, load rating and permitting, hydraulics and construction.

We serve as a resource for city and county engineers, providing guidance and help addressing questions. We work with the MnDOT State Aid Division, MnDOT Bridge Office, Minnesota's Federal Highway Administration, Local Research Board, National Cooperative Highway Research Program and Transportation Pooled Fund Program.



Popular links

LRFD Bridge Design Manual and guidance

New bridge number request - local system

Partners

Popular links

Box culvert plans

Bridge reports

Bridge construction

Bridge Info Interactive Map
 Bridge Emergency Vehicle Interactive Map
 Bridge inspection square

Bridges & Structures
 Historic Bridges

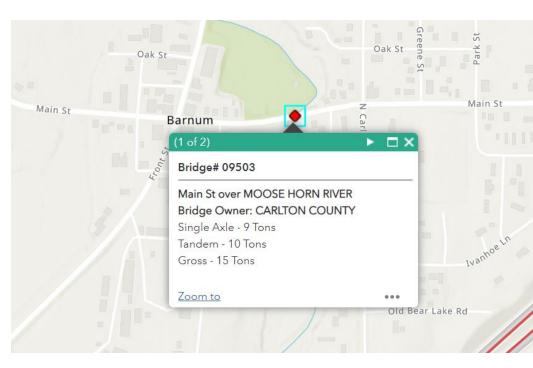
State Aid for Local Transportation

- Box culvert plans
- Bridge construction
- Bridge Info Interactive Map
- Bridge Emergency Vehicle Interactive Map
- Bridge inspection guidance
- Bridge reports
- LRFD Bridge Design Manual and guidance
- <u>New bridge number request local system</u>



What to do with this?

- 1. Look at bridge in your county.
- 2. Are there any bridges that are concerning:
 - i. High Traffic
 - ii. Proximity to housing
 - iii. Near commercial property
 - iv. On emergency routes
- 3. Observe posted status (most bridges are already posted).
- 4. Use the data to prioritize repair, rehabilitation, or replacement of concerning bridges.





What to do with this?

Work with your local emergency manager!





Next Steps?

- 1. Contact a selection of County emergency management coordinators.
- 2. Update map based on user feedback.
- 3. Update the map with new load ratings.
 - Short Term Manual update via a spreadsheet
 - Longer Term Make the map update in real time by syncing to SIMS (after forthcoming NBIS changes).



Bridge Investment Program

BridgeInvestmentProgram@dot.gov | Program Application | USDOT BIP Website

Purpose: The purpose of the Bridge Investment Program (BIP) is to provide competitive funding to improve bridge condition and the safety, efficiency and reliability of the movement of people and freight over bridges.

Maximum Funding Match: Large Bridge Projects: Up to 50% Other BIP Projects: Up to 80% Off-System Bridges: Up to 90% 12.5B over 5 Years

Eligible Projects:

- A project (or bundle of projects) to replace, rehabilitate, preserve, or protect a bridge on the National Bridge inventory
- A project to replace or rehabilitate culverts on the NBI for the purpose of improving flood control and improved habitat connectivity for aquatic species

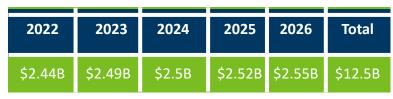
On an applicant's request, BIP funding may be used to pay subsidy and administrative costs for the TIFIA credit assistance for the awarded project.

Eligible Applicants:

- A State or group of States
- A MPO that serves an urbanize area
- A unit of local government or a group of local governments
- A political subdivision of a state or local government
- A special purpose district or public authority with a transportation function
- An FMLA
- A Tribal Government or a consortium of Tribal governments
- A combination of above entities

Closing Dates: Planning Applications: July 25 Bridge Project Applications: September 8 Large Bridge Project Applications: August 9

Funding Breakdown:



Types of Awards

Large Bridge

Eligibility: Total eligible project costs > \$100M Minimum Amount:

Must be:

- 1. Enough to fully fund project
- 2. At least \$50M
- 3. At least 50% of BIP funding from the Highway trust Fund

Bridge

Eligibility: Total eligible project costs < 100M *Minimum Amount:*

Must be:

- 1. Enough to fully fund the project
- 2. At least \$2.5M

Planning

Eligibility: The planning, feasibility analysis, and revenue forecasting of a project that would, after planning, be eligible for BIP funding *Minimum Amount:* None for planning grants

Bridge Project Additional Requirements:

- *Maintenance Requirement:* Applicant must demonstrate to USDOT that the bridge will be properly maintained by highlighting responsible maintenance entity, estimated costs, and funding sources
- **Bike/Ped Requirement:** If the bridge currently allows bicyclists/pedestrians and if accommodations can be provided at a reasonable cost, safety accommodations must be met for these nonmotorized users.
- Projects must also generate specified typed of benefits (or avoid specified types of costs) and is cost effective based on a cost-benefit analysis

Large Bridge Award Additional Information:

USDOT will recommend a "large bridge project" for funding only if it determines that the project:

- Addresses a need to improve the condition of the bridge
- Is supported by other Federal or non-federal financial commitments or revenues adequate to fund ongoing maintenance
- Is consistent with the applicant's asset management plan
- Has an overall DOT quality rating of "medium" or higher

USDOT will allow for a large bridge project receiving a BIP grant of at least \$100M to be carried out through a multiyear grant agreement

Bridge Award Additional Information:

• Requires DOT to evaluate the project, assign a quality rating, and consider that rating during the selection process

FY 2022 Funding:

<u>\$20M</u> is allocated for Planning projects | <u>\$2.36B</u> is allocated for Bridge and Large Bridge projects

Eligible Costs:

- A wide range of development phase activities
- The construction, reconstruction, rehabilitation, and acquisition of real property, environmental mitigation, construction contingencies, acquisition of equipment, and operational improvements directly related to improving system performance
- Expenses related to the protection of a bridge, including seismic or scour protection

Tribal Set-Asides:

There is an average of \$40M in BIP funding each fiscal year for tribal facility bridges, which shall be administered if made available under the tribal transportation program. There is also \$20M set aside in BIP funding for planning grants as well.

Culvert Funding:

Allows up to 5% of BIP funding per year to be used for eligible projects that consist solely of culvert replacement or rehabilitation of bridge-sized culverts.

Application & Selection Process:

- Use the <u>application templates</u> for each program you are applying to
- **Planning project narratives** should include: 1.) Basic Project Information (Description, Location, and Parties) 2.) National Bridge Inventory Data, 3.) Project Costs (Grant Funds, Sources, and Use of all Project Funding) 4.) Project Outcome Criteria 5.) Project Priority Considerations
- **Bridge and Large Bridge project narratives** should include: 1-4 from planning project narrative, 5.) Benefit-Cost Analysis 6.) Project Readiness and Environmental Risk 7.) Project Priority Considerations
- The USDOT will consider the following when selecting grants: 1.) the Department's rating of the project during the selection process, 2.) factors relating to the bridge person and freight throughput, 3.) bridge condition in the state, 4.) cost savings related to bundling, 5.) geographic diversity and urban-rural balance, and 6.) the extent to which a bridge seeking funding is in, or within 3 years risks entering, poor condition, or does not meet geometric design standards