

MnCMAT 2.0 update (pg. 1)

FLAP—call for projects (pg. 2)

Standard Specifications for Construction update (pg. 2)

Town bridge improvement costs (pg. 3)

Guidance for creating searchable contracts (pg. 4)

Plastic pipe options for storm sewer and culverts (pg. 4)

Proprietary products on federally funded projects (pg. 4)

Coming soon, new bridge funding eligibility criteria using BRIM (pg. 5)

Employee News (pg. 6)



# State Aid E-Scene

## MnCMAT 2.0 update

By: Loren Hill, Program Support Engineer

As many of you are aware, the Minnesota Crash Mapping Analysis Tool (MnCMAT) has been a valuable tool to traffic safety professionals for more than a decade, first as a desktop application and then through the current web application. SALT has contracted with Great Arc Technologies (GAT), who developed the current system, to develop a new web based system. The need for this new system was triggered principally by the need to accommodate the new crash data, along with MnDOT's move to a Linear Referencing System (LRS). The migration from the old Transportation Information System (TIS) using Route/Reference Point has been, and continues to be a challenge within MnDOT which has presented issues in the development of MnCMAT 2.0.

MnCMAT 2.0 is being modeled after the current system and will offer most of the current functionality, along with some enhancements. Of particular note is that the police officer' narrative

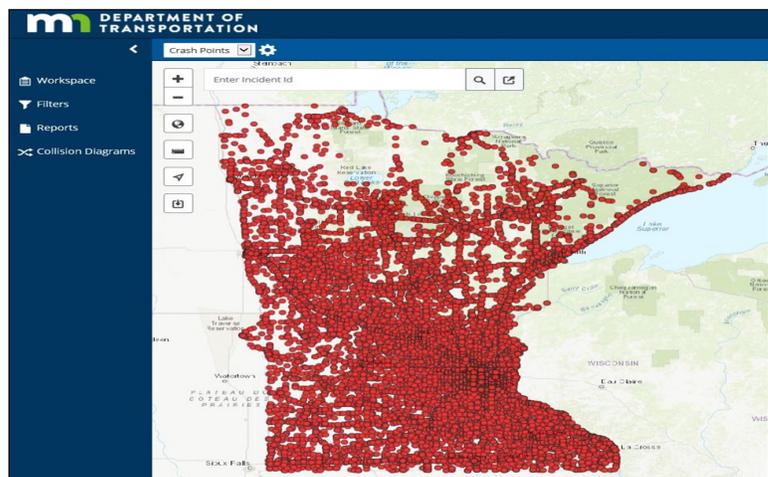
and sketch will be available for all crashes. We believe this is a great leap forward for crash analysts.

A user group has been formed to assist and guide the development of the application. This group includes:

- David Sheen – Hennepin County
- Joe Gustafson – Washington County
- Kristi Sebastian – Dakota County
- Loren Hill – SALT
- Luke Nelson – Eagan Police Dept.

- Mark Vizecky - SALT
- Rich Sanders – Polk County
- Sue Miller – Freeborn County
- Tim Plath – Eagan City Traffic Dept.
- Vic Lund – St Louis County

The release is on schedule for a January 2020 completion and roll out. Training would begin immediately, so that users and data for 2010 through 2019 will be ready at the start of 2020.



# FLAP—call for projects

By: Lynnette Roshell, Federal Aid Agreement & Special Programs Engineer

Do you have federal land in your county that can be accessed by a roadway or trail that you or some other local agencies control?

A federal lands access transportation facility is defined as a public highway, road, bridge, trail, or transit system that is located on, adjacent to, or provides access to federal lands for which title or maintenance responsibility is vested in a state, county, town, township, tribal, municipal, or local government. Proposed projects must be located on a public highway, road, bridge, trail or transit system that is located on, is adjacent to, or provides access to federal lands for which the facility title or maintenance responsibility is vested with a state, county, city, township, tribal, municipal, or local government. Generally, a 20 percent matching share of the project total is required for this program. Other federal (non-title 23 or 49, with the exception of Federal Lands Transportation Program (FLTP)) funds may be used as match. Safety related portions of a project may be funded at 100 percent, but applicants should plan on a straight 80/20 cost share when filling out the application. “Bonus” awards for safety elements will be made by the project selection team.

Approximately \$2.3 million in federal funds for federal fiscal years 2021 and 2022.

Applications must be submitted via email to [EFL.planning@dot.gov](mailto:EFL.planning@dot.gov) by October 15, 2019.

Applications for Minnesota may be submitted to Lynnette Roshell at [lynnette.roshell@state.mn.us](mailto:lynnette.roshell@state.mn.us) for a preliminary review prior to October 1, 2019. **This is highly suggested**, but not required.

The Federal Lands Access Program (FLAP) will be administered through MnDOT’s State Aid Division and the Eastern Federal Lands Highway Division (EFL) rather than the Minnesota FHWA Division, but the rules are pretty much the same. From the [guidance](#) we have received it can be any federally owned property, although the scoring is more targeted to federal recreational land and economic generators.

Eligible applicants are the owners of the access facilities such as cities, counties, and tribal governments. Applicants must be state aid agencies, be tribal governments, have a state aid agency as a sponsor, or have previous experience with DCP projects. Projects must have the support of the federal landowner that the project will provide access to. If more than one project is submitted related to a federal landowner, the owner will be asked to prioritize the projects.

Please explore the [EFL FLAP website](#) and follow the links to Minnesota’s FLAP website to download the application, review the state’s program goals and view the call for projects standard operating procedure and associated scoring criteria.

If you have any questions, contact Lynnette Roshell at 651-366-3822 or [lynnette.roshell@state.mn.us](mailto:lynnette.roshell@state.mn.us).



## Standard Specifications for Construction update

By: Merry Daher, Project Delivery Engineer

MnDOT is currently updating 2018 Standard Specification for Construction book. Our local partners will see a draft version before final publication (sometime in November 2019). The anticipated distribution of the final 2020 Standard Specification for Construction book is June 2020.

Goals of update are:

- Migrate 2018 Boilerplate Special Provisions currently in practice into 2020 Standard Specification for Construction book.
- Continue to update pay item descriptions to make them uniform.
- Correct the known errors in the 2018 Standard Specification for Construction book.
- Minimize redundant information – ex: 2105 and 2106 are very similar, background info regarding the differences between 2105 and 2106 we discussed can be found on [MnDOT Design Scene webpage](#) (PDF).

Your feedback is requested on the following items:

- Migrating section 2105 Excavation and Embankment into the 2020 Special Provision Boilerplate?
- Migrating Geosynthetic Construction Materials (Geotextiles) out of 2105 and into a new Standard Specification section?

Please send comments to Nancy Hanzlik at [nancy.hanzlik@state.mn.us](mailto:nancy.hanzlik@state.mn.us) by June 14, 2019.

# Town bridge improvement costs

By: Dave Conkel, State Aid Bridge Engineer

Recently several counties have brought to the attention of Kim DeLaRosa, CSAH Needs Manager and Brian Pogodzinski, Houston County Engineer/County Engineers Bridge Committee Chair, that MnDOT's computer generated town bridge improvement cost report appears to be under estimating costs. In addition, some counties have questioned why their manually inputted improvement costs into Structure Information Management System (SIMS) are eventually overwritten by the computer generated cost.

Brian and Kim presented and discussed this dilemma to Patti Loken, Local Bridge Programs Engineer and Dave Conkel, State Aid Bridge Engineer. As a result, State Aid will be looking into allowing manually inputted improvement costs to remain in annual cost reports beyond the eight year current threshold when computer generated costs are scheduled to over write them. FHWA considers cost data older than eight years as obsolete. Note, without a regularly scheduled computer cost regeneration, the onus is on the counties to keep their manual cost entries up-to-date overtime.

State Aid will also make sure the square



foot bridge replacement costs in the computer generated formulas are updated annually. These two changes should help the town bridge improvement costs used for annual apportionments to be more accurate, and allow more autonomy for the counties that elect to use manual cost entries

As a refresher, we've provided some useful references below. After reviewing, please remember a few things; 1) always try to provide accurate county manually inputted improvement costs, updated annually to best assure your county is receiving the correct annual town bridge apportionment, and

2) always call us if you have any questions. For detailed help with bridge reports and other bridge information questions, please contact MnDOT's Bridge Inventory Management Unit at [BridgeDataRequests.dot@state.mn.us](mailto:BridgeDataRequests.dot@state.mn.us).

- [Local Bridge Replacement Program webpage](#), see Township Program information sheet, program details, and history.
- [Town Bridge Program Statute, 161.082](#)
- [Instructions for Updating Town Bridge Costs](#) (Word)
- [Advancing Town Bridge Funds](#) (PDF)



# Guidance for creating searchable contracts

By: Rollin Larson, Construction Specialist (D6-D8)

We have noticed that many of the contract proposals we have received (as part of the DCP08) are **NOT** PDF text searchable. The ability to search this document is extremely beneficial, not only to the State Aid folks, but also to the construction inspection team of the contract holder. It helps save us time since we are able to search out specific items in the document using key words or phrases. It also can be a benefit to you in the future, for example, when you're putting together specifications on new projects and you want to look back and review how you addressed certain items before.

If you currently are producing contract proposals that are not PDF text searchable, please see [guidance for creating searchable PDFs](#) (PDF). This guidance can also be found under our [Project Delivery webpage](#) under the "Plans, Design & Preparation" section and the [Electronic Proposal Tool table webpage](#).

We hope that if you have used this before, you will find it a tool that helps you and your staff be more efficient. If you run into problems trying this new process, please contact 651-366-3838 or [saltirhelp.dot@state.mn.us](mailto:saltirhelp.dot@state.mn.us).

# Plastic pipe options for storm sewer and culverts

By: Andrea Hendrickson, State Aid Hydraulics Engineer

Technical memoranda on the use of plastic pipe for storm sewers and culverts on trunk highways have been around for years. While this tech memo is specifically written for trunk highways, some of the information might be of value to counties and cities as they select pipe materials for their projects.

The current version, [17-05-B-02](#) (PDF) issued 4-11-2017 recognizes that FHWA now allows state autonomy on determining pipe materials selection criteria when using federal funds. While MnDOT continues to recommend consideration of alternative pipe material options where appropriate as a way to increase competition, designers should specify products that in their professional engineering judgment best meet the needs of the project and site. The [Design Scene](#) was updated recently to be more in line with the current tech memo.

Another change in the technical guidance was the addition of polypropylene pipe. The [MnDOT Approved/Qualified Products List](#) includes qualified vendors and products that meet the materials and design specifications for the three types of dual wall plastic pipe covered by the tech memo. Regardless of the materials selected, it is good practice for the designer to consult the owner on pipe material selection decisions, and to document pipe material selection in the project file. Since plastic pipe is dependent on soil interaction for support, deflection testing is essential to make sure adequate compaction is provided and that plastic pipe will meet performance requirements. The tech memo has design criteria and considerations that can aid designers in evaluating plastic pipe suitability for specific site conditions.

# Proprietary products on federally funded projects

By: Gary Reihl, Federal Aid Project Development

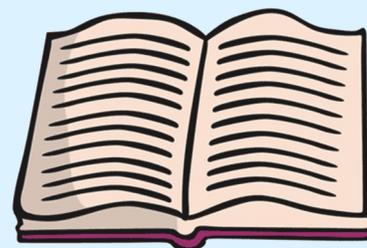
FHWA Guidance for Local Public Agency Use of MnDOT Approved Products/Qualified Products List.

"In accordance with the Minnesota DOT / FHWA Stewardship and Oversight Agreement, and FHWA's guidance on the use of materials, local public agencies using federal aid funds in locally administered projects may use MnDOT's Approved Products / Qualified Products List, with no additional testing or certifications necessary."

This means cities and counties don't need a Certification nor a Public Interest Finding if the product is on MnDOT's Approved Products/Qualified Products List.

References:

- [MnDOT Approved/Qualified Products Guidance](#)
- [Minnesota DOT / FHWA Stewardship and Oversight Agreement](#)
- [FHWA Patented and Proprietary Products Guidance](#)
- [FHWA Patented and Proprietary Products for Local Public Agencies Guidance](#)



# Coming soon, new bridge funding eligibility criteria using BRIM

By: Dave Conkel, State Aid Bridge Engineer

The past few years you have heard, and learned quite a bit on the new local Bridge Replacement and Improvement Management (BRIM) tool which helps you prioritize your local bridge inventory for replacement, rehabilitation, and repairs using a risk based approach. It's now time to take the next steps with BRIM, and to integrate new bridge funding eligibility criteria that best meets the needs of local bridge owners.

The County Engineers Bridge Committee, in conjunction with MnDOT's Bridge Inventory Management and State Aid Bridge Unit, landed on a funding criteria for BRIM that transitions smoothly from the old, obsolete federal funding criteria we have used for decades. Over the course of approximately six months, the Bridge Committee has been advising and studying bridge funding criteria for BRIM. After several iterations in criteria and further tweaks to BRIM's program logic, the committee has settled on a BRIM Local Planning Index (LPI) combined with some past criteria we're all still familiar with.

Brian Pogodzinski, Houston County Engineer/County Engineers Bridge Committee Chair, Patti Loken, State Aid Programs Engineer, Kim DeLa-Rosa, CSAH Needs Manager, and Dave Conkel, State Aid Bridge Engineer, recently met together regarding the transition to using LPI for eligibility and funding. Based on County Bridge Committee feedback and recommendations, they are in general agreement with the following new funding criteria:

- LPI of less than 60, or
- National Bridge Inventory (NBI) Appraisal Rating less than or equal to three for Deck Geometry, Approach Roadway, or Waterway Adequacy.
- Set BRIM LPI funding criteria implementation date of January 1, 2020.
- Allow a five year transition period. Bridges that are currently eligible for replacement will remain eligible for five years if they are already on the bridge replacement list, regardless of if they meet the new eligibility requirements. All other bridges will need to meet the new eligibility requirements above.
- A draft update for the State Aid Manual, Chapter 4 has been reviewed by the Bridge Committee, and with some final edits will be adopted concurrent with BRIM LPI funding criteria implementation. Other resources listed on State Aid websites will be edited for BRIM and BRIM funding criteria as well.

Brian will be attending the June 12th Board of Director's meeting to inform them of these exciting upcoming changes for local bridge owners. As a refresher, we've provided some useful references below. Lastly, we're placing a new Excel spreadsheet BRIM Calculator for bridge and culvert structures on the [Bridge State Aid website](#). This tool will replace the bridge and culvert Mathcad tools currently posted on the site. The Excel version is easier to use, and will help you better understand the LPI calculations and the logic behind it.

- [BRIM bridge replacement and improvement tool for local bridges](#)
- Bridge State Aid Newsletters
  - ⇒ [January 2019, pg. 8-9](#) (PDF)
  - ⇒ [January 2018, pg. 9-10](#) (PDF)
  - ⇒ [January 2017, pg. 13-14](#) (PDF)

		CULVERT CONDITION			
		Reduction Factor			
	NBI Condition	0	1	2	3
	N Not applicable	100	100	100	100
	9 Excellent	100	100	90	95
	8 Very good	95	90	85	90
	7 Good	90	85	80	75
	6 Satisfactory	75	70	60	55
	5 Fair	55	50	40	35
	4 Poor	35	35	25	15
	3 Serious	15	15	10	5
	2 Critical	5	5	5	0
	1 Imminent fail	0	0	0	0
	0 Failed	0	0	0	0

# Employee News

We are excited to announce Mao Yang is back in State Aid. Mao is working with in the State Aid Operations group as State Aid Projects Engineer. Her efforts will be focused on the State Aid Rules, Jurisdictional Transfer (Turnback) Program, State Park Road Program and the Local Partnership Program. Mao has over ten years of transportation engineering experience within state government, and over six years with State Aid. Most recently, she worked in MnDOT's Office of Traffic Engineering, coordinating the evaluation of safety improvements as part of the Towards Zero Deaths (TZD) program.

We are pleased to welcome Naomi Eckerd, our new MSAS Support Specialist. Naomi is replacing Deb Hall-Kuglin who retired in September. Naomi comes to us from the New Mexico DOT where she worked as a materials tester for four years, and survey technician for two years. Naomi graduated with a Bachelors of Science in Geology from Appalachian State University in Boone, North Carolina.

Northern area (D1-D4) Construction Specialist, Ron Bumann has retired from MnDOT. Ron's replacement, Ross Hendrickson (see Ross's announcement in the [March 2019 E-Scene](#) (PDF)) began in April and had been working with Ron until his retirement, allowing for a smoother transition. Ron started working for MnDOT in 1983 and began in State Aid in 2000. We thank Ron for his many years of state service and wish him well in his retirement.



*MCEA declared May 8, 2019 Ron Bumann Day in appreciation of his many years of dedicated service to the counties. Ron Bumann (left) along with John McDonald, D1- DSAE (right).*

The State Aid Office has a few upcoming retirements: Mitch Rasmussen, State Aid Division Director will be retiring July 5th, Merry Daher, Project Delivery Engineer will retire on July 12th, and Greg Coughlin, Project Engineer will retire on August 8th. State Aid is working on filling Mitch's positions. More information will be sent out as it becomes available.

Elisa Bottos has accepted the Project Delivery Engineer position. Elisa is planning to start July 1st. Elisa has been working at MnDOT for 18 years and over five years of this in State Aid. Elisa has been working in MnDOT's Office of Construction and Innovative Contracting since December 2016. Her other MnDOT experience includes: the Transit section, Metro State Aid Federal Aid Engineer, Acting DSAE at metro during two transition periods, Metro State Aid Construction Engineer, and other positions in construction including Consultant Contract Administration and Metro Project Engineer.



395 John Ireland Blvd MS500  
St. Paul, MN 55155  
[mndot.gov/stateaid](http://mndot.gov/stateaid)