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Issue Number 81, September 2017

State Aid E-Scene

SP/SAP numbers on MnDOT plans

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

The question has come up on when SPs and SAPs are required and where they're required on plans that involve MnDOT, and need MnDOT review. One key point was that there is a difference between SPs and SAPs. There are some in MnDOT that feel that anything State Aid does is an SAP and all MnDOT work is an SP. This is NOT true. A State Aid SP is a project that has federal funding in it and an SAP has state aid funding. MnDOT calls all their projects SPs.

All the SPs and SAPs are needed on the title sheet, general layout, estimate and tabulations. Chapter 5.4, section II. A. #2 of the State Aid Manual also says that all the SP and SAP numbers should be shown on the lower right corner of every the plan sheet. The federal number should only be on the upper right corner of the title sheet. State Aid reviewers may not have been strict about following the instructions in the State Aid Manual, but MnDOT reviewers have been having people remove the SPs and SAPs if they are on all the sheets. State Aid doesn't see value in that and it is contrary to the State Aid Manual. If the plan comes in at the eleventh hour without all the SP and SAP numbers, but has the numbers on the title sheet, general layout, estimate and tabulations, SALT may not force the plan preparer to add the numbers to a large plan set. If a group of plan sheets are added to a larger plan for a single area SALT may not require all of the other SP and SAP numbers to be added to that portion of the plan set. It's desirable to have the SP and SAPs on every plan sheet incase the plan set gets separated. Not everyone has all the city number memorized to know what they are. While it is complicated to have all the numbers shown on every plan sheet, the process for the State Aid Needs system requires that each segment of roadway have a unique number.

If you have any questions or concerns, please contact Lynnette Roshell at lynnette.roshell@state.mn.us.

SRTS infrastructure solicitation is coming, is your community ready?

By: Dave Cowan, Safe Routes to School Coordinator, Office of Transit

During our most recent legislative session, the Minnesota legislature allocated $1 million toward Safe Routes to School infrastructure project. The guidelines and application for this solicitation are currently being developed for a solicitation that will open this fall. Make sure your community is ready by reviewing the new eligibility language (PDF) that was amended to the state SRTS program in 2015 under Minnesota Statutes 174.40. The new language requires communities to adopt subdivision regulations that require SRTS infrastructure in developments authorized on or after June 1, 2016.

You can review our FAQ on the topic here (PDF).

MnDOT launches new online crossing guard training

By: Dave Cowan, Safe Routes to School Coordinator, Office of Transit

The Minnesota Department of Transportation along with many other partners across the state are working together to help schools and communities develop Safe Routes to School programs. The purpose of its resource center is to provide SRTS tools, resources and information needed for all partners – including parents, teachers, students, schools, school districts, communities, and others.

Many schools, both rural and urban, lack the internal resources to train and manage crossing guard and school safety patrol programs. In an effort to make training more widely available across the state, Minnesota Safe Routes to School have created new online Crossing Guard and School Safety Patrol training tools. These tools are now available on the Minnesota Safe Routes to School Resource Center for communities to explore and supplement their local crossing guard or school patrol program.

New online and interactive training tools:

Crossing Guard Training - Information for crossing guard coordinators and training for adult crossing guards.

School Patrol Training - Information for school safety patrol advisers and training for school safety patrollers.

Employee news

Lynette Jones has filled the Administrative Assistant position left vacant since late April. Prior to joining State Aid, Lynette worked in television for 22 years, including eight years with KARE 11. She has also worked for Microsoft, Starbucks, T-Mobile and Amazon. Lynette has a Bachelor's degree in Communications from Southern University in Baton Rouge and an MBA from the University of Northern Iowa. She has one daughter and enjoys traveling, cooking and volunteering.

Mao Yang has moved on from her role as the Safe Routes to School Infrastructure Coordinator. Her new position is in the MnDOT Office of Traffic Safety and Technology, as the Research and Safety Engineer. She will be serving as a technical resource for the Highway Safety Improvement Program and provide information on impacts of transportation safety improvements throughout the State of Minnesota using various analysis techniques and research data. She will be missed, but we proudly send her onto the next chapter in her career.

Sulmaan Khan has accepted a mobility position as the South Area Support Engineer at the MnDOT Metro District. His duties include project management, communications with the public and outside agencies, providing engineering expertise to local partners as well as project scoping and site and plan reviews. We wish him an engaging and fruitful experience. We're looking forward to his return in July 2018.

In the interim, please contact Mark Vizecky at mark.vizecky@state.mn.us or 651-366-3839 if you have any questions.

(Lynette Jones)

Paver Mounted Thermal Profiling

By: Joel Ulring, Pavement Engineer

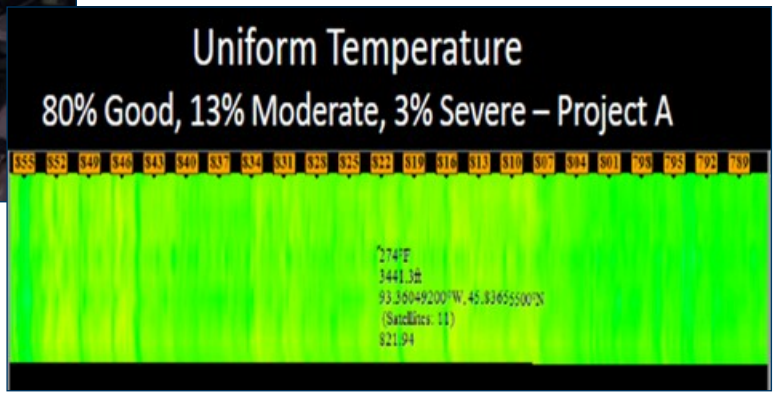
Over the past few years MnDOT has been developing several Quality Initiatives in the area of construction with incentives from the FHWA Every Day Counts (EDC-4) program. Intelligent Compaction (IC) and Paver Mounted Thermal Profiling (PMTP) are two of these technology incentives which MnDOT has developed and will fully implement on HMA paving projects in 2018. To assist in rolling out this technology to local agencies, the MnDOT Office of Materials and Road Research in Maplewood provided support to five counties who stepped forward to try it this construction season.

Paver Mounted Thermal Profiling consists of obtaining a continuous and permanent record of the pavement surface temperature during paving, directly behind the paver. This is accomplished by use of a thermal scanner that is mounted on a bar at the back of and above the paver. It is coupled with a GPS device and information is transmitted to the cloud. VETA software was developed by MnDOT to post process the temperature data and generate reports. Contractors are responsible for generating the reports for the owner agency. In some cases, the contractors are hiring a consultant to perform this work. The technology is focused on providing a consistent temperature mix near the specified lay down temperature. A Washington state study showed HMA placed that was more than 25^{o} F from the specified temperature was typically associated with low density areas. Density uniformity was also an issue. Therefore, an incentive is provided if mix is placed between 0^{o} F and 25^{o} F of the specified mix temperature and disincentive applied if mix temperature is more than 50^{o} F from the specified mix temperature. Because the pavers are equipped with a GPS locator, all paver stops and duration of the stops are documented.

The five counties who stepped forward to work with this technology were: Beltrami, Carver, Lincoln, Polk and Washington. At the time of this article, Lincoln and Washington counties completed their projects. Washington County experienced a cold mix issue at the beginning of the project. Working with the contractor they were able to make operational modifications and correct the problem. Pipestone County noticed the contractor showed up with a remixing pickup material transfer device. They also noticed the paver made fewer stops during the project. There were no thermal issues and the project went well. Both counties intend to specify PMTP on their future projects.

There is no question this technology is improving the construction quality of asphalt pavements. The more uniform the temperature of the pavement as it is placed results in more passing pavement densities and more uniformity of the pavement density. Fewer paver stops result in a smother pavement. The more dense and smooth the pavement is, the longer its life expectancy will be.

If you are interested in the PMTP technology and would like to try it on one of your paving projects in 2018, the specification is included as a special provision at this time. Suggested minimum project size is six lane miles. Please contact Joel Ulring at joel.urling@statemn.us or 651-366-3831 if you have any questions.



New guidebook, webinar available on enhanced culvert inspections

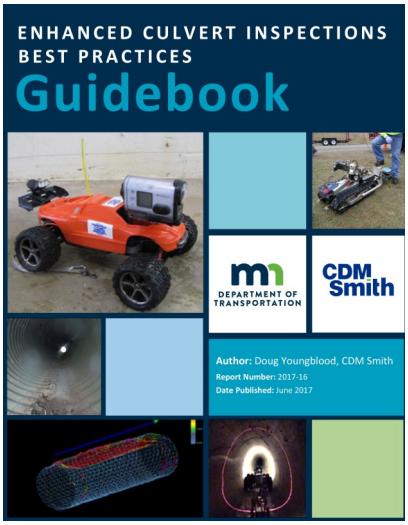
By: Shannon Fiecke, Marketing & Communications Manager, Office of Research Services & Library

End-of-pipe visual inspections are often not enough to fully assess culvert conditions. Enhanced inspection techniques provide better data, but can cost more than end-of-pipe inspections. Which methods work best?

In this pre-recorded webinar (YouTube), Doug Youngblood, author of MnDOT's new Enhanced Culvert Inspections Best Practices Guidebook introduces common enhanced inspection technologies and presents best practices for planning and conducting enhanced culvert inspections.

Methods covered include:

- Closed-Circuit Television Camera Inspection
- Hydraulic Inspection Vehicle Explorer Inspection
- Multiple sensor inspection (e.g., laser ring, sonar, inclinometer)
- Mandrel inspection
- Hammer sound testing
- Core sampling test



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