ESAL Calculator Update

By: Joel Ulring, Pavement Engineer

There was a review and recent update to the ESAL Calculator many use for determining the ESAL count for pavement design. There was a desire to make an update to the tool. With the available Automatic Traffic Recorders (ATR) and Weigh-In-Motion (WIM) sensors on the CSAH and state highway system, it was decided to review the data to assure the information and calculations used in the ESAL Calculator tool where still valid. With the very much appreciated assistance of the MnDOT Transportation Data and Analysis (TDA) group, the information contained in the tool was compared with actual collected data from the ATR and WIM sensors. It was confirmed there weren’t any significant changes required. After this was completed, the desired improvements to the ESAL Calculator tool were made.

The major update was replacing the AADT step function with a continuous function. This provides a more linear calculation of ESAL’s as AADT increases. The modification eliminates the vehicle AADT range group selection drop down list replacing it with an urban or rural selection. Also, to eliminate the possibility of negative traffic growth rate when AADT drops over the range of years analyzed, the ESAL calculation provides a minimum 0.5 percent traffic growth. The final result is the ESAL Calculator provides a more linear and continuous calculation of ESAL’s from low to high AADT ranges.

As a final note and reminder, when performing a pavement design, it is always recommended to perform an actual traffic count to establish vehicle volume and class type for the roadway being designed. This is especially recommended for higher volume (5,000 AADT) roadways. The ESAL Calculator is found on the State Aid Pavement webpage under “Pavement Design” and “Pavement Design Tools.” If you have any questions concerning its use, please contact Joel Ulring at joel.ulring@state.mn.us or 651-366-3831.

LRIP Solicitation Update

State Aid has received a substantial number of applications for the $25.36 million that is available for the Local Road Improvement Program. We received a total of 217 applications.

We anticipate the selection process will take 2-3 months while we finalize selected projects. As part of the program, we also are required to meet with a transportation advisory group who have provided guidance for the program and who will confirm our recommendations for projects selected for funding. An announcement from our office is anticipated in February or March, however, the timeline is subject to change depending on our ability to get all the applications reviewed and the scheduling of the meeting with the advisory committee.

Any future updates on the program developments will be posted on the LRIP webpage. We appreciate your patience throughout this process.
DCP Agreement Update
By: Lynnette Roshell, Federal Aid Agreement & Special Programs Engineer

Earlier this month many of you received a time sensitive package from SALT. This envelope contained an updated Delegated Contract Process (DCP) agreement for federal aid projects with bid openings in 2018 and beyond. Please take this agreement to your board or council as soon as possible for execution.

Your current DCP agreement will be cancelled effective July 1, 2018. The update was necessary to add details which are required to by 2 CFR 200. The agreement has also been reformatted to reflect the new MnDOT agreement format (and logo). Most of the language is the same as the previous agreement but it is just organized in a different manner. SALT requests that all agreements be returned to us by March 1, 2018 if you have a federal project in this state fiscal year. We would prefer to receive and have the agreements fully executed before you award any projects in 2018, but a few of you already have projects that are being advertised now and may not have enough time to get the agreement through your approval process. We ask that you get approval as soon as possible. We regret that we did not get these to you earlier this fall as we know some of you have modified board schedules this month. If you have any questions please contact Lynnette Roshell.

You will notice very few changes in the language except the items listed in 2 CFR 200. Because we wish to keep the DCP agreement generic for all projects that your agency does into the future some of the information that 2 CFR 200 requires is very specific. Those items which are project specific will be provided in the cover letter that comes with your project bid opening information. The auditors have started to ask for these items in their reviews. Because 2 CFR 200 is written for all types of federal awards some of the terminology is not what we generally use with FHWA funds. We will have a crosswalk of terms (PDF) to explain what the auditors are looking for or you can call Lynnette Roshell.

Another revision is the addition of an end date to your federal project, see other article in this State Aid Scene. A writing error in a section related to the end date resulted in the need for a change to page 6 of the agreement. In addition contact persons are listed in the agreement, this is a requirement of 2 CFR 200. Mitch Rasmussen is listed as the contact for MnDOT as all of the items SALT is required to do by federal law and by MnDOT policy fall under the duties of people who work for him. Current official county engineers were sent the agreement, as well as current city engineers who are not also employed by a consultant. For cities with consultant engineers the original agreements were sent to the city administrator/ manager for execution by the city council. Not getting this agreement executed could delay award of projects later this summer. If you have any questions or concerns please call Lynnette Roshell at lynnette.roshell@state.mn.us or 651-366-3822.

New MN/WI Section 404 RGPs
By: Gary Reihl, Federal Aid Project Development

Earlier this summer the St. Paul District U.S. Army Corps of Engineers Regulatory Branch issued a public notice announcing its intent to develop several new Regional General Permits (RGPs). The proposed 2018 RGPs would replace most of the currently available RGPs authorized for use in the St. Paul District (MN and WI). The proposed 2018 RGPs would provide streamlined authorization for regulated minor activities in waters of the U.S. and are proposed for use in Minnesota, Wisconsin and within the exterior boundaries of federally-recognized American Indian reservations in both states.

Our interest is particular to the following:

Transportation: This RGP is proposed to authorize regulated activities associated with the minor maintenance and modification of existing linear transportation projects, the construction of new linear transportation projects, the construction or expansion of non-linear transportation projects, and temporary discharges, including survey activities, needed to construct transportation projects.

The timeline for implementation of new 2018 RGPs:

- To EPA for review and verification for 401 Certification (45 – 60 days)
- Implementation mid to late February 2018 (There could be some delay to the implementation if the Corps allows MnDOT and Locals time to bid contracts that are already authorized under RGP 3 or 4).

NEW! (continue on page 3)
...continued, New MN/WI Section 404 RGPs

WORK AUTHORIZED BY THE EXISTING REGIONAL GENERAL PERMITS

At the time the proposed 2018 RGPs are issued, the Corps plans to suspend and ultimately revoke all existing RGPs to eliminate redundancy.

Activities authorized by the existing RGPs that have commenced construction, or are under contract to commence construction, will remain authorized for up to 12 months after the date of original RGP expiration, suspension, or revocation; whichever is sooner. Projects currently authorized by the existing RGPs which have not begun work and are not under contract at the time of RGP suspension or expiration will require a new review for verification under the new general permit or individual permit.

A link to the 2018 RGPs will send out when it is available.

If you have questions please contact Gary Reihl at gary.reihl@state.mn.us or 651-366-3819.

Online Technical Recertifications

By: Joel Ulring, Pavement Engineer

At the request of local agencies, State Aid has looked into and made progress with getting technical recertifications online. The availability of online technical recertification courses, beyond saving time and money for local agencies, allow staff to access the recertification courses at their convenience.

Prior to beginning the project, MnDOT’s Technical Certification Unit had developed two courses; Bituminous Street and Concrete Field 1, and was close to having a third course, Grading and Base, completed. A fourth project was just getting underway, combined Concrete Field 1 & 2. It took several years to develop these courses using MnDOT resources. To initiate the project, a survey was performed to prioritize the remaining recertification courses for development. The survey results are as follows:

1) Bituminous Plant 1
2) Concrete Field 1 Update
3) Combined Concrete Field 1 & 2
4) Concrete Plant 1
5) Bridge Construction

Note: Since local agencies rarely receive Bituminous Plant 2 and Concrete Plant 2 recertification, these two were dropped from the priority list.

Lake Superior College, based in Duluth, assists MnDOT in administering the technical certification program. They also have an extensive online teaching program. State Aid was able to capitalize on that and a contract was signed in May 2017 with Lake Superior College to complete four courses. By September 2017, Bituminous Plant 1 was completed and was available online for the fall 2017 recertification schedule. At this time, Concrete Field 1 has been updated and awaiting review. This winter, plans are to complete Concrete Field 2 and combine it with Concrete Field 1. Next summer, work will begin on Concrete Plant 1. The Bridge Construction Recertification course is quite extensive with several areas covered. The completion of this course will be assessed at a future date for development into an online course.

If you have any comments or feedback concerning development of the online technical certification courses, please contact Joel Ulring at Joel.ulring@state.mn.us or 651-366-3831.
Federal Project End Dates

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

Since late in 2014, the FHWA has been assigning project end dates to all projects as they are authorized. FHWA defines the end date as the last date that they will pay for any work done on the project. Only work performed after the authorization date will be eligible for federal reimbursement. So, the period of performance is the time between the authorization date and the end date. This is one of the items required to be defined now by 2 CFR 200. See the timeline chart (PDF) for a visual sequence of milestones in a project.

Looking at historical data, FHWA agreed that MnDOT could put an end date on all new construction projects of seven years after authorization. For agreement projects the end date is two years after the expiration of the agreement, since most agreements are written for five years this is also about seven years. Projects authorized before 2014 do not have formal end dates unless they have been financially modified since late 2014.

This end date IS NOT the last date you can submit paperwork. MnDOT needs time to process the paperwork so a clause in your new DCP agreement states that all final paperwork must be submitted to the DSAE 24 months prior to the assigned end date, to allow time for processing. The law says that the projects need to be closed out within 90 days of the end date.

Beginning in 2018 SALT will get quarterly reports of upcoming end dates and will forward the list to the DSAEs for the purposes of reminding local agencies to submit the final paperwork. The Minnesota FHWA Division Office has told us that they will take end dates even more seriously than Inactive Projects.

FHWA understands that things happen and project completion dates may need to be extended, but they have made it clear that end dates will only be changed with really good reasons. What exactly these reasons will be we don’t know until we have to begin to ask.

The moral is get your projects done in a timely manner and avoid missing end date deadlines and the inactive project list. If you have questions you may contact Merry Daher at merry.daher@state.mn.us or 651-366-3821 or Lynnette Roshell at lynnette.roshell@state.mn.us or 651-366-3822.

Life of a Federal Project

December 1, 2017

FHWA Period of Performance

DCP timeline

Inception of project
- Purpose & need
- Title 23 funds
- Project identified
- Environmental documents
- Permits obtained
- Right-of-way purchased
- Plans
- Authorization

Pre-bid
- Construction of project
- Award
- Construction

Maintenance of facility constructed
- Post-award
- Final
- Final payment

TPA
- Final inspection
- Acceptance
- Final bid
- Final payment
- Final

Time*
New hires

Sara Pflaum is the new Safe Routes to School Infrastructure Coordinator. Sara is replacing Mao Yang who left in August to take a position in the MnDOT Office of Traffic Safety and Technology. Before coming to MnDOT, Sara worked at Metro Transit for 5.5 years, first as an office engineer in construction on the green line, then in project controls during the design of the green line extension (southwest light rail project) where she would work on federal submittals for the New Starts Program, preparing procedures and management plans, and managing consultant contracts and procurement processes. Prior to this, Sara worked for the University of Minnesota for a year, coordinating with transportation projects around the U and managing the U’s traffic management center during large events. She also worked in design for Washington State DOT for 7 years. Sara has bachelor’s degree in civil engineering from the University of Minnesota and is a PE in Minnesota and Washington.

Retirement

On December 8, 2017, after more than 29 years with State Aid, Paul Stine retired from MnDOT. Paul spent his entire career working in SALT, except for one six month mobility. He was our resident expert on the State Aid Standards and Rules, served on numerous technical committees, worked on Rule revisions, Technical Memoranda statewide consultant contracts, and research projects. Paul also managed the State Park Road, Disaster and Turnback accounts for many years. Although his exterior demeanor fooled many, he had a very good sense of humor. Over the years Paul organized many fishing trips to Canada for several colleagues, and will likely continue the tradition into his retirement. His recent trip to Puerto Rico (cut short by Hurricane Maria) did not change his plans for travel in his retirement as he is back in Puerto Rico now! We wish him all the best in his retirement. Hasta la vista Paul!

On the move

Ted Schoenecker has accepted the Ramsey Public Works Director/County Engineer position. Although this is a big loss to the agency, to State Aid, and our local partners, this is a great opportunity for Ted. He will be a tremendous asset to Ramsey County and a great partner to MnDOT and the cities on current and future projects with the county. Ted’s last date with State Aid as Deputy State Aid Engineer will be January 5th, in the interim please contact Mitch Rasmussen until the position is filled.

Employee News

Cooperative Agreement Projects

By: Gary Reihi, Federal Aid Project Development

It has recently come to the attention of the SALT staff that MnDOT and State Aid do things DIFFERENTLY!! The MnDOT Categorical Exclusion (CatEx) document and the State Aid Project Memorandum (PM) are not quite the same, although both documents satisfy the NEPA environmental review requirements for federally funded projects.

If MnDOT is the lead agency for a local federally funded project, please make sure to review the CatEx document and send a copy to your DSAE. We want to verify that the CatEx clearly and completely includes the local agency’s project work.

Remember it is your federal funding that is at stake if an audit would find that NEPA for the local portion of the project was not complete.
MnDOT and its county partners received national honors Nov. 15 for the success of its “Implementation of Data Driven Safety Solutions” program to reduce fatal crashes on county roads.

Minnesota was one of nine states to receive the prestigious 2017 National Roadway Safety Award, a biannual awards program sponsored jointly by the Roadway Safety Foundation and the Federal Highway Administration. The awards, which were presented in Washington, D.C., recognize roadway safety achievements that move the U.S. toward zero deaths and serious injuries on the nation’s roadways.

State crash data indicate that county roads account for half of all fatal crashes, even though they account for less than a quarter of vehicle miles traveled in the state. To address this, MnDOT and the Minnesota County Engineers Association worked with counties to develop county road safety plans for all 87 Minnesota counties, emphasizing low-cost, systemic improvements over high-cost reactive treatments.

“The implementation of the county roadway safety plans by our local partners have made an actionable difference in saving lives on Minnesota’s roadways, helping to drive us towards our goal of zero roadway-related deaths,” said Mark Vizecky, State Aid Programs engineer.

The plans contain 330 low-cost, proactive safety improvements on county roads that resulted in a 25 percent reduction in the county road fatality rate over the subsequent four years. Improvements included signs on curves, pavement marking enhancements, rumble strips and stripes, intersection lighting and intersection signing and pavement marking installations.

“Projects were evaluated on effectiveness, innovation and efficient use of resources. The program honors projects in two categories: infrastructure and operational improvements, and program planning, development and evaluation.”

“The National Roadway Safety Awards are an opportunity to recognize the unsung heroes who plan, engineer and implement creative measures to help save lives on a daily basis and rarely receive credit for doing so,” said Gregory Cohen, RSF executive director.

MnDOT received two roadway safety awards in 2011 for the development of local roadway safety plans in Wright County and for using microsurfacing to prevent wet weather crashes.

More information on the national awards program can be found on their website.

Project Groups on Plans

Last year, the federal plans experienced a few hick-ups when we submitted the federal authorization requests because the SEQ and EE had combined items that should have been in separate groups, even though the funding was the same for all the items. Specifically, if a roadway is being resurfaced and there are culverts with bridge numbers, each bridge needs to be separated out from the roadway. This is the case on all work in federally funded plans, regardless of funding on the segments. We have linked a SEQ Federal Fund Group Guide with detailed instructions on how to group items. It is included it on page 113 of the e-SAM, under Chapter 5.4 C.1.a.
2018 Electronic Proposal Tool

We’ve added the 2018 electronic proposal tool table to the website for use with the 2018 Construction Spec Book. Visit our [Electronic Proposals webpage](http://www.dot.state.mn.us/stateaid/) to access.

State Aid for Local Transportation

2018 Electronic Proposals

Electronic Proposal Documents for use with 2018 Construction Spec Book

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