



# AUGUST 2021 Connecting the DOTs

## Leadership Development Program (LDP) Cohort 2

### INSIDE THIS ISSUE:

SECRETARY'S CORNER -  
PAGE 2

THE SINGING BRIDGE -  
PAGES 3 & 4

FALLEN HERO PROGRAM -  
PAGE 5

SDDOT BANNER AND  
DECALS - PAGE 6

MOVING TOWARD THE  
FUTURE OF DESIGN - PAGES  
7 & 8

AUGUST MENTORING  
MINUTE - PAGE 9

TRAINING - PAGE 10

ARCGIS TIPS AND TRICKS -  
MOBILE DATA COLLECTION  
- PAGE 11

SDDOT AWARDS - PAGE 12

EMPLOYEE NEWS,  
CELEBRATIONS, AND  
PHOTO SUBMISSIONS -  
PAGES 13-17

Thank you to everyone who submitted an application to the SDDOT Leadership Development Program (LDP).

We purposely limit the class size to foster a training environment that enhances individual interaction and capitalizes upon participant leadership growth. Because of the limited size, we are not able to accept every applicant, but it is our goal to offer a third LDP next year!

**Below are Cohort 2 LDP participants.** We look forward to sharing more about the LDP and other **leadership pathway** opportunities with you!

- Rik Bartels, Lead Hwy Worker - Rapid City Region
- Christina Bennett, Traffic Design Engr. - Central, Operations
- Quincy Berger, Lead Hwy Worker - Bridge Crew, Aberdeen Reg.
- Joanie Blair, Accountant III - Central, Finance
- Michael Border, Project Engr. - Mitchell Region
- Kit Bramblee, Environmental Scientist III - Central, Environmental
- Patrick Brueggeman, Transportation Research Engr. - Central, ITS
- Rian Edwards, Lead Hwy Worker - Pierre Region
- Derek Ferwerda, Transportation Eng. Manager - Central, Inv. Mgmt.
- John Iverson, Structural Engr. - Central, Bridge
- Ryan Johnson, Senior Specifications Engr. - Central, Operations
- Margo McDowell, Research Project Manager - Central, Research
- Broc Swanson, Region Bridge Engr. - Rapid City Region
- Colton Tines, Lead Hwy Worker - Rapid City Region
- Andy Vandel, Hwy Safety Engr. - Central, Project Development
- Kimberly Zerr, Transportation Specialist II - Central, Inv. Mgmt.

**SDDOT Mission:** To efficiently provide a safe and effective public transportation system

**SDDOT Vision:** Better lives through better transportation by being the best





## The Secretary's Corner



### Sturgis Rally Traffic Operations Center



August 6, 2021, marked the beginning of the 81st Sturgis Motorcycle Rally. Thousands of bikers from across the country rode the beautiful highways of South Dakota on their way to the Black Hills. With over 525,000 vehicles entering the town of Sturgis during the Rally, the SDDOT prepared to provide the safest transportation system possible during this time.

Prior to the start of the Rally, our staff go above and beyond to prepare for the increased traffic volumes in and around the town of Sturgis. Temporary traffic signals are set up at various locations throughout the Rapid City Region, temporary speed limits are enacted, and the Sturgis Rally Traffic Operations Center (TOC) becomes fully operational.



Each year, the Sturgis shop breakroom transforms into the TOC and becomes the hub of the SDDOT's functions for Sturgis and the surrounding area. The staff at the TOC monitor live-feed cameras to ensure that traffic continues to flow smoothly, adjust signals, fix malfunctioning signals, gather traffic data, perform regular maintenance activities, and program message boards.

The Rally and the TOC also provide the perfect opportunity for the SDDOT to collaborate with other state agencies to promote safety. The staff at the TOC work hand-in-hand with the Highway Patrol and Department of Public Safety to help all visitors make it to their destinations safely.

Thank you to all SDDOT employees who spend numerous hours preparing and performing set up, working the Rally (including the TOC), and dismantling everything when it is all over. Your efforts enhance safety for all road users during the Sturgis Rally. Your dedication and hard work do not go unnoticed.



## The Singing Bridge Saga

By John W. Villbrandt - Mobridge Area Engineer

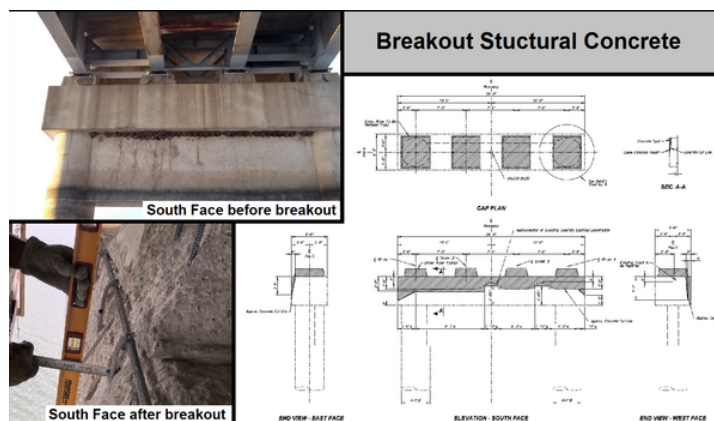
The adventure that began on a cold, late Saturday afternoon in February came to a successful end on a hot, Thursday evening in July. Many already know how the Singing Bridge story began. If not, please read the **March 2021 Connecting the DOTs** newsletter at <https://dot.sd.gov/media/Connecting%20the%20DOTs%20March,%202021.pdf>.

Since February, a consultant was hired to design a set of plans outlining the necessary permanent repair work. A contract to perform that repair work was awarded to Hollaway Bridge and Culvert, Inc. (Pierre) on June 9.



Hollaway Bridge and Culvert, Inc. accomplished all repair work on the S.D.1806 bridge from their snoop truck.

The \$240,221 contract required completely closing the bridge to all traffic for the duration of the project. As you can imagine, the length of time that the bridge would be closed was of great concern to the travelling public – especially those living and working in the Wakpala, Kenel, and Ft. Yates, N.D. areas. After all, to get from one end to the other of this 4,002' bridge via state highways was a significant 89-mile detour. Fortunately, there is a much shorter 37-mile detour option available, but it includes several miles of gravel road. It goes without saying that the Singing Bridge is a vital link to emergency services to the Standing Rock Reservation communities northwest of Mobridge. With that in mind, a Special Provision for Contract Time was included in the contract allowing the contractor 28 days to complete work. This provision also included a \$5,000 per-day incentive for early completion.





## Singing Bridge Continued:

The preconstruction meeting was held on July 7. The bridge was closed to traffic, and work began on Monday, July 12, with all work taking place from a snooper truck. Work to remove and replace all spalled and delaminated concrete from the pier cap was started right away with the pier cap repairs completed on July 15.

The superstructure was then jacked up to allow for the removal of the bearings and risers. After that, the new risers were formed, anchor bolts installed, and concrete was poured on July 22nd. Once the concrete reached design strength, the bearing components were installed, the superstructure was lowered into place. And just like that, the project was complete, and traffic was restored to the bridge on July 29.



The finished product is shown following the spall repairs, new risers and bearing components.



Work on the project went well thanks to the contractor and **Mobridge Area Engineers, Steven Jacobs and Chris Vetter** (shown above).

## Fallen Hero Bridge Naming Program Dedication Photos

The Fallen Hero Program was created to honor and remember South Dakota's fallen veterans by naming bridges on the state highway system for those who were either killed or are still missing in action while defending our country in an armed conflict. Naming bridges in honor of our combat veterans is an initiative of Governor Noem and the Departments of Military, Transportation, and Veterans Affairs.

Veterans Affairs hosted a State Bridge Dedication Ceremony to honor **Army Combat Veteran Private Richard Bertram** on Saturday, Aug. 14, at the Colome American Legion Post. Winner Area staff, including **Doug Sherman and Jeff Hrabanek**, had the honor of attending the ceremony on behalf of the SDDOT.

The U.S Highway 183 Bridge, spanning the Keya Paha River, was dedicated to PVT Bertram. He was killed in action on Okinawa Island in Japan in 1945 while serving with Company C, 382nd Infantry.

The Bertram family had 14 children, each of the seven brothers served in the US Military between WWII and Korea. Larry Bertram is the only surviving sibling.

**Brad Whitley, Winner Area Highway Maintenance Worker**, helped the family erect the sign at the bridge site on U.S. 183.

Family members at the site: Rocky Bertram, Harvey Nicholas, Karen Bertram, Larry Bertram, Sherry Bertram, Fay Bertram, and Rahn Bertram



(Photos provided by Doug Sherman, Winner Area Engineer.)

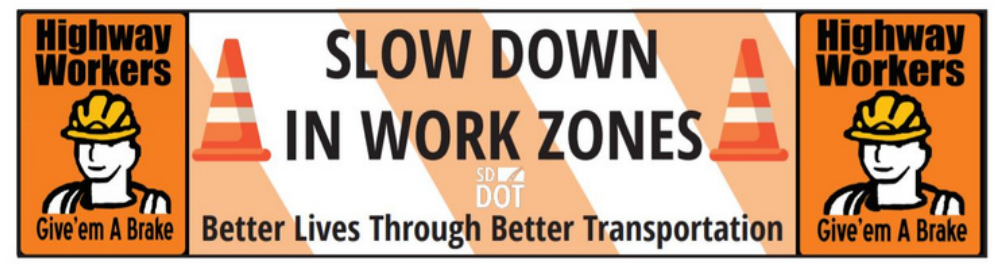


## SDDOT Templates:

Please view our branding page for new banner designs and sizing options.

Contact information to place orders is also available on the site.

<https://www.dot.sd.gov/inside-sddot/media/branding-and-identity-guidelines>



New SDDOT and 511 logo decals will be placed on all new vehicles driver and passenger side doors. Costs and labor to replace logos on existing vehicles is being reviewed to determine the best transition plan.

For any questions about the process to rebrand SDDOT vehicles, please contact **Tyler Green, Equipment Management Specialist for the Division of Operations Support.**





## Moving Toward the Future of Design

By Brandon Riss  
Engineering Manager, Office of Road Design



Over the years, SDDOT has witnessed a lot of changes in the way plans are produced. It was common at one point to see drafting boards and large sheets of paper along with a LEROY lettering set. Plans were drafted by hand and alignments were set in the field on "Route Inspections". Surveyed alignments were used and making changes to this alignment was definitely less than desirable. Eventually a completed plan set was produced, and the project was constructed with nothing more than an alignment and profile, a typical section,

and some quantities. There was certainly some field engineering going on during construction to make everything work. In the late 80's and 90's, the DOT started using Computer Aided Drafting (CAD) for plans production. Some might remember an Intergraph Workstation even. This made consistency much easier and also allowed for implementing changes more easily. More details could also be included in the plans because it took less time to produce. Since the introduction of CAD, many advancements have been made in the industry.

SDDOT has been using InRoads as our main design platform over the last couple of decades. It has worked well providing designers a method for creating corridor modeling. Moving things around during the design process is easier and plans production is more automated. With each new version of InRoads, improvements were made to make things even easier. This program has its limitations though and has become dated. This prompted Bentley, who owns InRoads, to come up with a new platform that would replace the tried and true InRoads program.

This brings us to today. The SDDOT has begun transitioning to using the latest design software from Bentley. The new product is now called OpenRoads Designer. This software is based on a much more powerful platform with even more automation. Work is done in a dynamic environment where changes to the design are automatically updated and reflected. In addition, it provides the ability to build a lot of detail into the models that just wasn't practical or even possible before. Intersection modeling for instance has always been difficult with InRoads. OpenRoads makes this task much easier which ultimately increases accuracy in the designs.

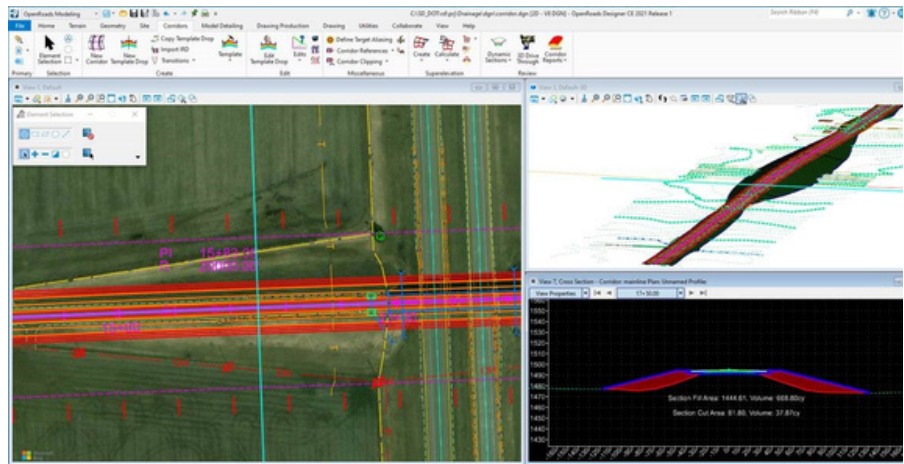
The department's goal is to be using OpenRoads Designer for production by year end. However, a lot of work is yet to be done to make this happen. Our focus has been on being able to efficiently produce what we do today with a later shift into what is possible in the future. Producing complete models which include bid items and quantities within the model itself is the way the industry is headed. Some pilot projects have already been completed, with success, without the use of traditional plans entirely. While we may not be quite to that point yet, the technology to make that happen is here. We will continue to develop and fine-tune our processes to keep up with the industry.

## Future of Design Continued:

We are making a large leap forward with switching to OpenRoads in the very near future.

A microsite, dedicated for the SDDOT, was created to help provide information and training for Bentley products. If you are interested in seeing OpenRoads, or any of the other products that the SDDOT uses, or will use, please check it out through LMS:

<https://sdakdot.csod.com/samldefault.aspx?returnurl=%252fDeepLink%252fProcessRedirect.aspx%253fmodule%253dlaunchtraining%2526lo%253d6b89b1aa-7570-4252-87e3-55ebbeb6760>



As you've seen where we've been, what we use now, and what we will be using in the near future, one can only imagine what we'll be using 20 years from now!

Here is a brief summary of everything done and where we are headed:

### What we've accomplished:

The OpenRoads workspace (settings, files, etc.) has been finished for the survey group. Training has been completed for the surveyors as well. A small test group of designers are testing the OpenRoads roadway design workspace that has been developed. Training for this small group is ongoing.

### What is coming soon:

The OpenRoads workspace may need some input from other offices that use InRoads today. This will help provide a more comprehensive workspace. Once the OpenRoads workspace is considered complete, training for the rest of DOT's users will be scheduled. Those groups will include Road Design, Surfacing, Region Design, Region Traffic, Region Materials, Bridge Design, and any other users who currently use InRoads within their job. The expectation is that this will occur this coming winter if everything stays on track. Current MicroStation users may need minimal training to adjust to the latest version of MicroStation. The look is different, but the commands are the same.

### What might be expected in the future:

The DOT hopes to incorporate other offices' workflows using 3D software into the developed OpenRoads workflow. This will provide a more seamless handoff of data and better collaboration. Digital design checks, where the model itself is reviewed, is also where the industry is headed. As new technology is introduced, finding ways to incorporate that into existing workflows will be important to keep up with the industry.





WORKFORCE

## August Mentoring Minute Make Time for Mentoring!

By Matt Dorfschmidt & Tim Wicks



Whether you're new to the DOT or a seasoned veteran, the **Mentoring program** has something for you if you **MAKE TIME FOR MENTORING!**

It is great when a new employee or someone new to a position becomes a Mentee. It also is just as valuable for employees that have had years of experience.

Mentors are always welcome, but you should prepare yourself to learn something new! It seems to happen every time.

### Would you:

- Like to learn what happens in other parts of the DOT?
  - Design?
  - Maintenance?
  - Construction?
  - Testing?
  - Finance?
  - Environmental?
- Like to learn more about your job to make things easier and more productive?
- Like to visit other Areas or Regions and see how they do things?
- Like to make some connections and put the name with a face?
- Like to develop a skill that you are missing or would like to improve upon?

The best part about it is you can make the **Mentoring Program** fit exactly what you want to do. You can also make adjustments as you go.

If you are worried about time commitment, that's up to you, too. If construction season is your busy time, you can do more in the winter. If winter is your busy time, you can do more in the summer. Also, we should be back on schedule to have Mentoring startups every 1 ½ years. Sometimes life happens and it may work out better in the future.

We also have many communication tools that we have become more familiar. That doesn't mean you have to use them. They are just options.

The **Mentoring Program** is a great way to improve yourself, on your terms. If you are having reservations, there is no obligation. If you try it out, and realize it's not for you, or you don't have the right match, it is acceptable to change your mind about participating.

**Intrigued? Want to explore the opportunity?  
Watch for Mentoring Program details in Secretary Jundt's  
upcoming Information Interchange emails!**



## TRAINING UPDATE

Learn ~ Engage ~ Improve  
August 2021

### NEW EMPLOYEE ORIENTATION

Nov. 16-17 | 1 p.m. to 12 (noon) | Ft. Pierre

### FIRST AID CLASSES

Sept. 14 | 9 a.m. – 3 p.m. | Pierre

### TRAFFIC CONTROL COURSES

ATSSA Traffic Control Technician

Oct. 16 | 8 a.m. – 5 p.m. CT | Sioux Falls

Dec. 14 | 8 a.m. – 5 p.m. MT | Rapid City

### ATSSA TRAFFIC CONTROL SUPERVISOR

Oct. 17-18 | 8 a.m. – 5 p.m. CT | Sioux Falls

Dec. 15-16 | 8 a.m. – 5 p.m. MT | Rapid City

### ADA CLASSES

Common Issues with ADA

Nov 2 | 9 a.m. – 12 (noon) | Pierre

Nov 30 | 9 am – 12 (noon) | Sioux Falls

### ACCOMMODATING PEDESTRIANS in WORK ZONES

Nov. 2 | 1 – 3 p.m. | Pierre

Nov. 30 | 1 – 3 p.m. | Sioux Falls

### BRIDGE CLASSES

Ultra-High-Performance Concrete for Bridge Preservation & Repair

Aug. 17-18 | 12:30 – 4:30 p.m. CT | Online

NHI 135046 Stream Stability & Scour at Highway Bridges

Oct. 19-21 | 8 a.m. – 5 p.m. | Pierre

NHI 135047 Stream Stability & Scour at Highway Bridges for Inspectors

Nov. 9 | 8 a.m. – 5 p.m. | Pierre



### The BHR Leadership Conference is back in-person for 2021

Tuesday, Sept. 28, 2021 - - Ramkota Hotel & Conference Center in Pierre

Features exciting speakers, breakout sessions, and other fun activities for leaders of all levels.

For more information (and to register) go to:

<https://bhr.sd.gov/employees/training-courses/special-events-seminars/leadership-conference/index.html>



PROCESSES

## ArcGIS Tips and Tricks

### Mobile Data Collection

#### Using ModelBuilder to Create a Prioritization Workflow

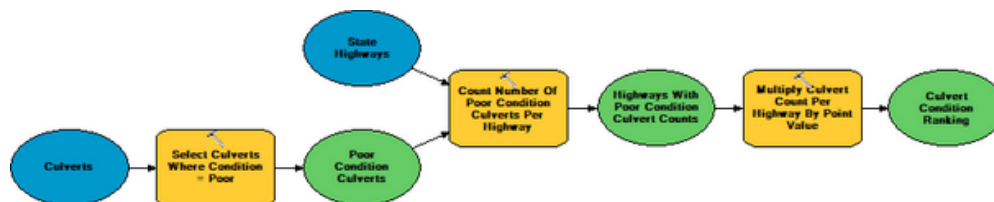
By Kathryn Wesson

There's more to GIS than visualizing data on a map. ArcGIS ModelBuilder gives you the power to string together tools and help you build and analyze your data from start to finish, with just a few clicks!

ModelBuilder is a user-friendly interface (through ArcMap, ArcCatalog, or ArcGIS Pro) that allows you to connect the GIS processing tools you know and love as a visual representation of your workflow. By connecting output data of one tool as the input data of another, you eliminate the need to run each tool separately. This can save a lot of time.

One such implementation of ModelBuilder within our department is determining high-priority highways for reconstruction projects. Previous years involved the Project Development office performing many hours of complicated spreadsheet work and manual data review. Inventory Management developed a model where we can dump all data that potentially impacts our highway system, geographically link it to each highway, then calculate the ranking of highways by measuring the frequency and condition in which it overlaps with the input data. The higher the ranking, the more critical the need.

Data used in this analysis includes layers from DataHound, such as structures and culverts, vertical design speed, accident locations, and divided highways. For example, a culvert that is in "poor" condition would contribute towards a higher ranking of a highway than a culvert in "good" condition. Through ModelBuilder, we can tell our GIS software to count the number of "poor" and "good" culverts along each highway, multiply those counts by a designated point value, and affix that information directly to the highway in a series of connected steps.



Other ranking variables like the age of a structure, percentage of no passing zones along a stretch of highway, and speed limits can all be calculated in GIS with the use of ModelBuilder. A final calculation in the model adds the individual rankings for the input data to create a prioritized list of top highways for future reconstruction projects. In this way, we condense weeks of analysis into a day-long process.

If you think you have a project that could benefit from ArcGIS ModelBuilder, contact Kim or Kathryn with Transportation Inventory Management.



## SDDOT ACPA Awards

The Sioux Falls Area recently was given two awards for concrete paving excellence for Project NH 2042(04), PCN 04XM Arrowhead Parkway in Sioux Falls.

One award is from the local **South Dakota Chapter of the ACPA for concrete paving excellence**. The other award is for the same project, but awarded from the **National ACPA**. This project was the Silver winner in Municipal Streets and Intersections (>30k SY).



**(L-R) Chad Hanisch, Krista May and Eric Lerssen from IDG and Greg Aalberg – Engineering Supervisor Sioux Falls Area.**

The Veterans Parkway Project (Rice Street to Interstate 90) was chosen as the recipient of the **2021 American Concrete Pipe Association (ACPA) Project Achievement Award**. The purpose of the annual project achievement award is to recognize agencies who demonstrate creative and innovative accomplishments through projects that have been designed utilizing precast concrete pipe or boxes.

“The Veterans Parkway Project involved unique challenges due to the deep fills, sensitive environmental concerns, and multiple drainage ways within or near the grading work,” says **Travis Dressen, Mitchell Region Engineer**. “The project team developed feasible solutions and worked through initial challenges during construction that resulted in an outstanding final product.”

“The Veterans Parkway Project used precast products in a variety of ways to achieve an environmentally friendly enhancement to the economic vitality of the Sioux Falls area,” says **Josh Beakley, ACPA Vice President of Engineering**.

Hancock Concrete Products supplied the pipe, box culvert, and precast inlets for this project. Collaboration among SDDOT, HDR Engineering, and Hancock Concrete led to innovative designs and cost savings on multiple aspects of the drainage system. Contractor, Riley Bros. of Morris, MN, installed the pipe.



**(L-R) Bill Adams-ACPA, Travis Dressen-SDDOT, Scott Hofer-Hancock Concrete-ACPA, Ray Pierson-Hancock Concrete, Jason Kjenstad-HDR**

**(L-R) Mike Border-SDDOT, Brad Tiede-SDDOT, Spencer Thompson-SDDOT, Randy Lee-SDDOT, Travis Dressen-SDDOT, Jared Pfaff-SDDOT, Ryan Story-SDDOT, Harry Johnston-SDDOT**



## Strategic Objective: Value all Team Members

### New Hires:

Eric Adams, Highway Maintenance Worker - Newell

Shaun McKay, Highway Maintenance Worker - Wall

Jeremy Soukup, Land Surveyor-Yankton

Kevin Ellis, Journey Transportation Technician - Rapid City

Trevor Sachtjen, Journey Transportation Technician(Driller) - Geotechnical Engr. - Pierre

Tom Mahar, Highway Maintenance Worker - Custer

Jamie Hyde, Consultant Management Engineer - Pierre



### From Jack Dokken:

I am very excited to announce we have two new staff members in the Transit Office!

**Brenda Sharkey** and **Terri Boyle** will begin working as **Transportation Specialists**, and will be managing grants related to transit operations and asset acquisition. Their duties began on August 9. Both Brenda and Terri are currently state employees and have been committed to public service for years, their experiences will serve them well!

### From Mike Behm:

Please help me to congratulate **Joanne Hight** on her new role as **Planning & Engineering Administration Program Manager!!** As many of you know, **Tammy Williams** will be retiring this fall which will give Joanne and the DOT team time to transition roles. Joanne will start the transition on Aug. 24, and will work with Tammy through the October timeframe when she retires.

### August Longevity:

**Stacy Parmely, Accountant I - 20 years (Central Office)**

**Jerry Schaefer, Certification/Accreditation Engineer - 45 years (Central Office)**

**Randall Vesely, Survey Crew Chief/Chief Driller - 35 years (Winner Area)**

**Michele Beeler, Training Program Assistant**, voluntarily started the group, Little Players, for the Pierre Theater Community. This group encourages kids to express themselves creatively. Recently, Michele was assistant director for the production of "Charlotte's Web". Find the Capital Journal story link below. Michele spends countless hours volunteering with these kids!

[https://www.capjournal.com/news/childrens-theater-provides-opportunity-to-grow/article\\_2a6016f2-f930-11eb-9769-3f505ecbd737.html](https://www.capjournal.com/news/childrens-theater-provides-opportunity-to-grow/article_2a6016f2-f930-11eb-9769-3f505ecbd737.html)

<https://www.facebook.com/LittlePlayersChildrensTheatre>





## Employee News and Celebrations

**Alan Berheim, Finals Review Specialist in the Operations Support Office (Pierre),** reaches 20 years longevity with SDDOT in July. Alan received his pin from **Rick Gordon, Operations Construction Engineer.**

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**Joe Feller, Chief Materials and Surfacing Engineer** presents a 45-year pin to **Jerry Schaefer, Certification and Accreditation Engineer (Pierre).**

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Troy and Leah Nelson welcomed their son Miles Allen born 07/30/21. Weight 7 lbs. 5 oz. and Length 20 inches.  
**Troy is an Engineer in Huron Area.**

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Leo Brink, son of **Jeff Brink - Watertown Engineering Supervisor,** was born around 3 p.m. on Aug. 3, 2021 (5 weeks early) weighing 6 lbs. 7 oz. His older sister Hallie is very excited to be a big sister.







Meet Zaden, the fishing-loving grandson of **Safety Coordinator, Carol Evans**  
His shirt reads: Catch Em! Cut Em! Eat Em!

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Future SDDOT team member?  
Raelynn, daughter of **Austin Berry - Highway Maintenance Worker in Presho**, models DOT apparel.

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Cole Edward Goetz, 4-months old, enjoyed the  
Mobridge Demolition Derby!  
Cole is the grandson of **Wanda Fuhrer, Mobridge Area - Senior Secretary.**

**Brian Burke - Watertown Area Highway Maintenance Worker**  
welcomed twins to his family on  
July 20, 2021.

(Left) Oliver Michael Burke  
Born 1:28 p.m.  
5 lbs. 1 oz. and 17 3/4 in long

(Right) Samuel James Burke  
Born 1:29 p.m.  
5 lbs. and 15 1/4 in long





I-90 Northern Hills Rest Area, near the Wyoming Border.  
Photo submitted **by Tom Horan, Rapid City Area Engineer**

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**Spencer Thompson, Project Technician in the Sioux Falls Area,**  
getting ready to test asphalt.

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Cheyenne River Bottom from Highway 63  
Photo submitted by **Brittany Anderson, Human Resource Specialist, BHR**

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**Polly Hart** is pictured with the 28 lb. lake trout she caught on Lake Michigan. Polly is an appraiser for the Right of Way office and her office is currently located in Sturgis.



The SDDOT **Pierre Region Bridge crew** performed its routine annual inspection of the existing Pierre-Fort Pierre Bridge. The inspection vehicle, called a snooper truck, provides safe access for SDDOT staff to perform a close up visual inspection underneath the bridge.

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Striping crew getting ready to paint Hwy. 37 north of Mitchell. Photo submitted by **Doran Raymond, Lead Highway Maintenance**, Michell Region Operations.

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Drone pic from the **Gettysburg Urban Reconstruction Project**. Photo submitted by **Chad Howard, Project Engineer**.

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Welcome to **Grady Myers, Equipment Technician** for the Winner Area