

Connecting the DOTs

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SDDOT Mission:

To efficiently provide a safe and effective public transportation system

SDDOT Vision:

Better lives through better transportation by being the best

Alex Green, the 5-year-old son of **Tyler Green, SDDOT Equipment Management Specialist**, will receive a wish through the Make-A-Wish Foundation. Alex "wished" for a switch hitter, a distinctively designed piece of adaptive technology that attaches to his wheelchair so he can play baseball.

The presentation of the adaptive equipment to Alex is Friday, July 29 at 5:30 p.m. at the Stanley County Elementary gym!

Steve Rhoades, Mitchell Region Equipment Shop Foreman, is the original designer of this adaptive equipment. Steve shared information about the adaptive equipment with Tyler, which led to this Wish!

Meet Alex

I wish to have a Switch Hitter

Hometown: Fort Pierre, SD

Age: 5

Medical condition: genetic disorder

Wish family: Tyler & Stacey (dad & mom), Ty, Wyatt, Clayton, Phillip, AJ & Millie (siblings), and Alex

Favorite activities: Swinging, going for walks and being in the water

Wish date: Friday, July 29th @ 5:30 PM

Where: Ft. Pierre Youth Baseball Field at Parkview Elementary School

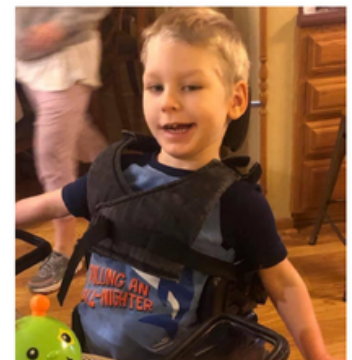
ABOUT ALEX AND HIS WISH

Alex is a very happy and smiley kid who loves cuddling! He has become very popular in school this year, as he just started pre-kindergarten. He is a hit with all the teachers and fellow classmates at Stanley County Elementary.

His mom says you can't help but to be happy around him because his smile is infectious. He melts the hearts of everyone he encounters and is a ray of sunshine wherever he goes.

Outside, Alex loves being in the water and enjoys swinging and being around his family. His parents thought he would really benefit from having a "switch hitter" device that can allow him to play baseball. It's a unique piece of adaptive technology that goes right onto his wheelchair and is controlled with the simple flip of a switch.

His mom and dad said, "We are thankful for this wish, because it gives Alex a chance to be out playing ball with his older brothers Phillip and AJ, who both absolutely adore him."



I wish to have a Switch Hitter
Alex, 5
genetic disorder

"We are thankful for this wish, because it gives Alex a chance to be out playing ball with his older brothers Phillip and AJ, who both absolutely adore him."

- Wish mom & dad, Tyler & Stacey



The Secretary's Corner

We recognize our **interns**
and celebrate the
future leaders and
innovators of tomorrow!

National Intern Day - Thursday, July 28, 2022.

SDDOT interns are vital contributors to the work we do each day! After all, the interns of today are truly the leaders of tomorrow. **The SDDOT is fortunate to have 57 interns working with our organization across the state.**

3 - Aberdeen 1 - Belle Fourche 6 - Brookings 1 - Custer 2 - Mitchell 2 - Mobridge
19 - Pierre 6 - Rapid City 6 - Sioux Falls 4 - Watertown 4 - Winner 3 - Yankton

Internships are a critical step on a successful career path. Please take time to recognize your interns for all the great work they are doing for the SDDOT. As potential future employees, we want to ensure their experience with us is a good one!

Pictured below are the four Winner Area interns; left to right - Brady Fritz, Gage Watson, Jeremiah Yeaman, and Cade Watson.

Jeremiah Yeaman is an Engineering intern who has been working on various projects to learn aspects of what our engineers and technicians do to ensure project quality.

The other three young men are non-engineering Interns. They have been working on seasonal items like checking spread rates, doing pipe asset surveys, and helping to survey.

Find more intern highlights and photos from the field on our **SDDOT Careers** page at <https://dot.sd.gov/inside-sddot/about-sddot/careers-at-the-sddot>. Our recruitment team will share the intern features while recruiting at high school and collegiate career events.





Development of South Dakota's Electric Vehicle Fast Charging Plan

By: Mike Behm,
Director Division of Planning & Engineering

From late June through early July, we've been working to receive public input on the development of an **Electric Vehicle Infrastructure Deployment Plan**.

Public meetings were held in mid-June through in-person meetings as well as a virtual self-guided tour on the www.sdevplan.com website.

The online public surveys officially closed on Friday, July 8, 2022.

Below is a summary of participant engagement, and responses to the first survey question.

Online Visitors 1,100

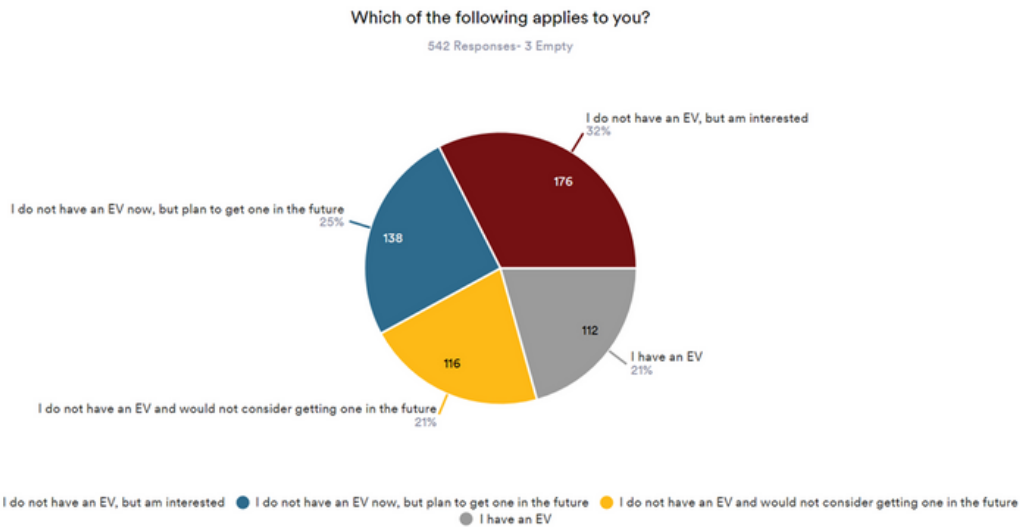
of Surveys Completed Online: 515

Open Houses Participants: 80

of Surveys Completed at Open Houses: 27

Total Participants: 1,180

Total Survey Responses: 542



The federal law requires that the Plan be submitted to Federal Highway Administration (FHWA) by Aug. 1, 2022. With the initial guidance released on February 10, 2022, and the Notice of Proposed Rules on the program released on June 10, 2022, not much time was allowed for DOT to develop the plan and we've been learning on the fly!!

Many of you are probably wondering why is the SDDOT involved in EV charging infrastructure. As a part of the most recent federal bill (**Infrastructure Investment Jobs Act IJA**), Congress provided approximately \$5 billion in general funds (money that is not from the Highway Trust Fund) to state DOT's to work on a national framework of EV charging. Nationally the vehicle consumer market has, and continues, to shift to Electric Vehicles. Many of the current Internal Combustion Engine (ICE) manufacturers like Ford, GM, and Honda are committing to converting future sales from ICE to EV's.

Continued . . .

EV Fast Charging Plan continued

Currently, there are around 1,400 electric vehicles registered in South Dakota which represents a very low ratio of total vehicles registered in our state. However, we also recognize the anticipated adoption (30% increase per year) coupled with the increased traffic volume from tourists that come to enjoy our state that there is a need for fast charging.

One of the many challenges is the financial viability of installations. In theory, that financial viability issue was the main justification for funding from the IIJA. The thought is to supplement private investment while simultaneously developing a national network which in turn would/could increase EV sales and usage.

As you know, our federal and state transportation projects are partially funded through the collection of motor fuel taxes, obviously something that an EV owner wouldn't pay.

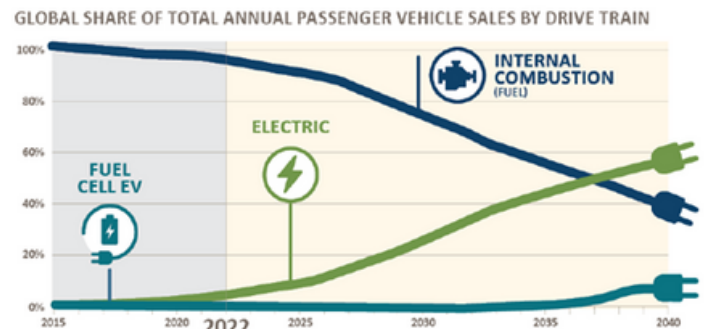
Currently in South Dakota, EV owners pay an additional \$50 per year to register their vehicle which is intended to function as their user fee.

Where should this number be? How should the out-of-state drivers pay their "fair share"? These are topics of discussion throughout the nation.

During the development of this EV Fast Charging Plan, we've learned a lot and continue to learn more every day.

Please feel free to reach out to Steve Gramm, Jerry Ortbahn, Tom Horan, Tammy Williams, or me with any questions or thoughts you may have.

MFR	EV Goals
Ford	50% of annual vehicle sales EV by 2030
GM	100% of annual vehicle sales EV by 2035
Chrysler	35% EV of annual vehicle sales EV by 2030
Toyota	3.5M EV sales per year (globally) by 2030
Honda	100% EV of annual vehicle sales EV by 2040
VW	55% of annual vehicle sales EV by 2030



About Electric Vehicles and Charging Stations

We've included a video of the live presentation of the public meetings, along with a Frequently Asked Questions (FAQ) document, on the www.sdevplan.com website. We invite you to take time to watch the video and review the materials.

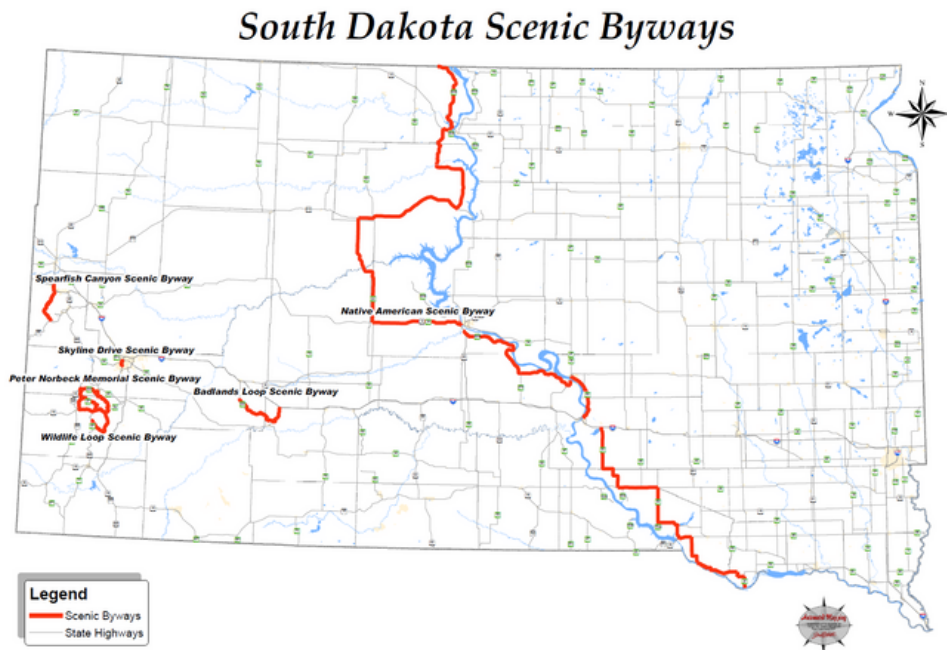


South Dakota Scenic Byways by Logan Gran, Planning Engineer

The Scenic Byways Program recognizes those roadways which exhibit the state's unique character and beauty. Individuals, organizations, and local governments may identify roadways with truly distinctive qualities and nominate them for State Scenic Byway designation.

Find more information, including the application form, on our website at:
<https://dot.sd.gov/programs-services/programs/scenic-byways>

State Designated Scenic Byways (as designated by SDDOT) are noted in the map below.



Ben Osborn took photos during the fourth of July holiday weekend on the opposite side of the Missouri River from the Native American Scenic Byway. As he noted, the yuccas were blooming.



July Transit Highlight

Prairie Hills Transit



In the Black Hills of South Dakota there is a transit agency making a difference in people's lives. **Prairie Hills Transit and Director Barb Cline** have been a blessing to the area and continue working hard to provide transportation to individuals in their service area for medical appointments, shopping trips, jobs and after school activities to name a few. Barb came into the transit world through her previous job, managing the senior meals program. When Barb got to know these people, she began asking if they'd like to come to the dining room. For many the answer was yes but they didn't have a ride. This caused Barb to wonder what she could do help them. With a small grant from Adult Services and Aging to provide transportation and an old green van, she started providing transportation for Spearfish seniors only in 1989. Now today, she has a staff of 21 full time employees, 29 part time employees and could use 8-10 more people to be fully staffed with drivers and office personnel. Ideally that would be 60 employees to cover the western end of the state from Edgemont all the way up to Lemmon.

"Sometimes taking a leap of faith to help your community begins a very interesting career path that develops more personal and professional rewards than you could ever imagine."

The pandemic caused a drastic change in everyone's lives and a lot of businesses shut down but not transit. I asked Barb how her staff handled the situation because no matter what, there are always people who still needed to get to medical appointments for things like cancer treatments and daily dialysis. Barb mentioned one driver she has who volunteered to take people who were Covid positive to get to their doctor or home from the hospital. He was willing to wear the personal protective equipment all day long so that people who were well enough to leave the hospital could go home to recover and as such open up more hospital beds for new patients. There were some unique situations that came up because of the pandemic. Some people had to go from Rapid City to Eagle Butte but the tribes had set up blockades to limit the spread of covid. In order for the people leaving the hospital to get home, Prairie Hills had to call ahead to the reservation and find out what the procedure was to get through the blockade. Having people willing to go that extra mile to help others get home is what makes Barb so proud of her people. Barb proudly told me that she has binders filled with newspaper and magazine articles talking about the great work of Prairie Hills Transit and the team of employees who drive our success.

Transit highlight continued . . .

Like most people, Barb has done a wide variety of jobs throughout her life. Barb went from working for federal fisheries, an appliance store and in the finance department of a large healthcare company to being the director of a large non-profit company. Which she has proudly done for 33 years. She says the most challenging part of transit grant management is trying to forecast the needs of a system that size, juggle the funding agreements and at the same time meet and perform all of the regulatory requirements. Barb has worked with a lot of great people throughout her time at Prairie Hills.

One interesting story she had was about a transit driver and the establishment of Elroy Mundhenke Day on June 24, 2002.

Elroy Mundhenke was a very safety minded, dedicated, and organized driver for Prairie Hills and was driving around older vehicles that had been converted to allow for wheelchair access. Elroy knew it took a long time to have enough funds to buy a new vehicle and worried that he would never see the day when new buses would be available to Prairie Hills. Then unexpectedly the agency received a brand new bus! To surprise Elroy, the Spearfish Mayor declared June 24th his "Day" and a group of co-workers, friends, family and city officials came to Elroy's house with the new bus for him to see. Elroy was able to get behind the wheel and amidst applause he loaded up the group and took his riders for a short ride.

Elroy passed away on Aug. 13, 2002. His obituary mentioned that he was privileged to drive that first new transit bus in Spearfish. That is just one more example of the type of people who work for Prairie Hills Transit.

Barb says she has an amazing team that bring a unique perspective to the work we do. **"I love their comradery and willingness to step in and help each other."**



Photos from Fallen Hero Bridge Dedications and Sign Installations:

The White River Bridge on S.D. Highway 183, south of Presho, was recently dedicated to U.S. Marine Corporal John Hutchison.

Bob Carrico, Lead Highway Maintenance Worker from Pierre (second from right), carried the state flag of South Dakota for the American Legion Post 20 Presentation of Colors at the Bridge Naming Ceremony for U.S. Marine Corporal John Hutchison.



Lantry Bridge (Little Bear Creek) on U.S. Highway 212

SDDOT Employees Left to Right:
Doug Wager – HMW Mobridge
Andrew Schuler – LHMW Eagle Butte
David “Tiny” Martin – HMW Eagle Butte
Kelly Berndt – Summer Seasonal Eagle Butte

Not pictured (flagging traffic) were:
Val Godkin – Summer Seasonal Mobridge
Raymond “RJ” Joens – HMW Eagle Butte



SDDOT crews recently installed the sign dedicated to **U.S. Army PFC David R. Gatton** on U.S. Highway 83 over the White River.

PFC David R. Gatton, began his Vietnam tour of duty on Sept. 11, 1966. During the engagement, Gatton was fatally wounded by mortar fragments on Dec. 29, 1966.





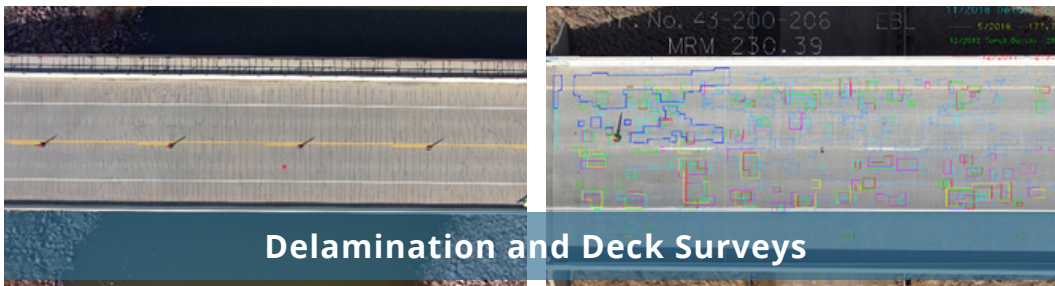
Drone Work for Bridge Inspections

By: Josh Olson
Senior Region Bridge Engineer/UAS Pilot

It has been said before, but I'll say it again . . . drones can't replace a bridge inspector on a bridge site, but they can be a valuable tool in an inspector's toolbox.

Using the DOT's Skydio S2 drone for bridge inspections has considerable advantages over conventional methods of access mainly being speed, cost, accuracy, and most importantly, safety. When to use the drone versus traditional access methods is and will continue to be at the discretion of the inspector.

The Skydio S2 is a very good, relatively inexpensive machine for getting in close and seeing what a bridge inspector needs to see, make a condition assessment, and be comfortable signing off on a bridge or other structure as safe. There has been a lot of discussion, trial and error, and communication amongst the four regions since we obtained the machines in October 2021. Some of the uses we have explored and found to be useful are:



Delamination and Deck Surveys

As for the future, we are looking at collecting and creating 3D models with our Skydio drones for parts or all of our structures to better show the deterioration.



Ancillary Structure Inspections

That work will be ongoing to create guidelines starting this fall going into next year.



General Bridge Views

The 3D models are one more deliverable that we are looking at using for decision makers to better understand the existing conditions of the structure and possibly create plans from the model.



Flooding Assessments



July Mentoring Minute

The Power of Paying it Forward by Kim Wheeler



Most of us can look back on our careers and think of at least one person who took the time and energy to provide mentorship, guidance, and a listening ear. And when we think back on those mentors, we likely don't reflect on the projects they led or the awards they won, but rather the difference they made in our lives, both as professionals and as people.

Mentoring is usually a powerful and lasting experience for both the mentee and the mentor, but mentoring is bigger than two people and the finite period of time they work together. It has the potential to become a legacy—a legacy of people investing in people and paying forward the investment that others have made in them.

Each of us is part of a larger team, group, and community, and we all—mentees and mentors alike—have the opportunity to take what we learn from each other and amplify it. When we remember the times, we have been helped, it can motivate us to help find ways to help others and enhance their lives in ways big and small, creating a powerful butterfly effect in which helping one person indirectly helps dozens, maybe even hundreds, of others.

So, what does paying it forward look like, and how can anyone from new hire to the seasoned veteran nearing retirement carry on the mentoring legacy? Here are some ideas.

Seek and apply advice— and tell the advisor how it went. People love to give advice, and it's even better when someone asks for it. This may seem like a small thing, but in day-to-day life, many of us are less likely to seek others' advice compared to when we are in a mentoring environment. Looking for opportunities to ask others for feedback or guidance will not only benefit you but will signal to them that you recognize their knowledge and experience and value their opinion. Even better, try their advice and follow up to let them know how it went. Not only will you make them feel appreciated, you might inspire them to do the same.

Thank your mentor. Mentors are hard-working heroes. On top of their day jobs, personal commitments, and challenges of their own, they make time to mentor and develop employees who often do not even work for them or directly impact their day-to-day work. They are motivated solely by the desire to help someone else by sharing what they've learned. Say thank you often and show your appreciation by communicating the difference your mentor has made in your life. This simple act will show them the powerful impact they have and inspire them to continue mentoring and influencing others.

continued . . .

Mentoring continued . . .

Share what you've learned. One of the great things about mentoring is that it is a tailored, individual experience, which means that everyone is going to learn something different. Don't keep that knowledge to yourself! Look for opportunities to pay it forward by sharing what you've learned in your mentoring work, whether it's passing on your mentor's helpful tips to a friend or colleague facing similar challenges, giving your team a class on a program you gained proficiency in, or maybe just openly practicing your new skills in your day-to-day job to help make your team more successful. Chances are, if something you learned from your mentor helped you, it will probably help someone else, too. Be generous with your gains and look for ways to share them with others.

Mentor someone else. For mentees in a formal mentoring relationship, this is an obvious next step and one they feel confident taking. For others, it may seem far-fetched. But the truth is, even if you are brand new to the workforce or your agency, even if you've never been a supervisor, even if you are not yet an expert in your field, there is a mentor in all of us. Seasoned employees can help guide the next generation of leaders; meanwhile, junior employees who are still getting their footing in their careers, can find plenty of opportunities to mentor someone else through community programs and other opportunities outside of work. We all have something to offer and something to teach.

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Make time for mentoring!



July Mentoring Event - Project and Plant Tours

Pictured are mentors and mentees who participated in the recent Sioux Falls Tour! The group toured Egger Steel, Cemcast Pipe and Precast, and the I-90 reconstruction project west of Sioux Falls.

Participants for this mentoring event were primarily from Pierre and East River locations! Coming up next, Rapid City project and plant tours!

Shapefiles and Geodatabases: Which is Better?

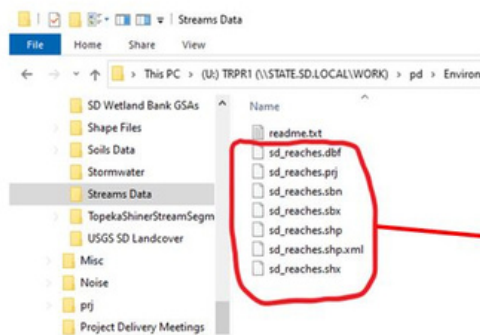
By Kimberly Zerr and Kathryn Wesson

Shapefiles and geodatabases are both GIS data storage methods. They are often referred to interchangeably, but they are different with benefits and disadvantages to both. Let's start with a few basics about each type:

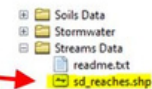
Shapefiles

Shapefiles are a simple geospatial data format that consists of at least 3 separate files (.shp is the geometry, .shx is the index of the geometry, and .dbf is the attribute information; other files may contain additional data like the coordinate system and metadata). They only allow 2GB of data storage and can only contain one set of data. Other limitations include not supporting field names longer than 10 characters, not supporting date and time storage in the same field, and not allowing raster (i.e. imagery) data storage. Shapefiles can also only be accessed by one user at a time. The benefits of shapefiles are that they're easy to share via email and they're compatible with almost any GIS software. Shapefiles are the "legacy" data format for GIS users.

Here are what the raw files look like in Windows File Explorer...

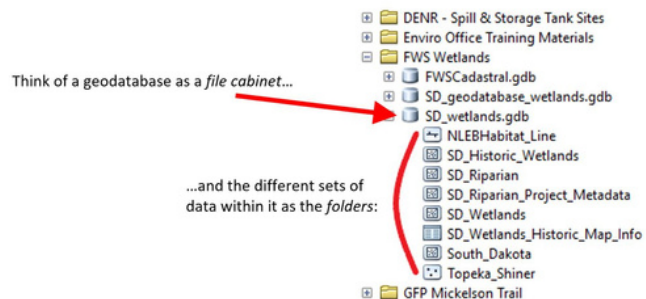


...but in ArcMap, the files are portrayed as one *shapefile*:



Geodatabases

Geodatabases are containers for multiple sets of geospatial data formats. They allow more data storage (1TB) and multiple users. They also allow greater functionality for analysis such as topology, domains and subtypes, and high precision geometry. Limitations for geodatabases include not being compatible with non-ArcGIS software. Geodatabases are the primary data format used for editing and data management and therefore are utilized more frequently within SDDOT.



To summarize, a shapefile always contains a single item while a geodatabase can contain more than one item. While it's unlikely that shapefiles will ever completely go away, geodatabases are the favored storage type for SDDOT. If you need help deciding which format is right for you, contact the GIS team!

SDDOT Employee News and Updates . . .

SDDOT team members generously share time, talents, and resources across the state.



Congratulations to 2nd Quarter Impact Award Winners

- ▶ EXTREME WEATHER ACTIVITY ASSISTANCE TEAMS
- ▶ HORIZONTAL CAREER PATH DEVELOPMENT TEAM
- ▶ INDIVIDUAL WINNERS:
JIM DORFSCHMIDT & JOSH MCBURNETT

Extreme Weather Team: Chris Voelker, Bruce Cramer, Jesse Doblal, William Burshiem, Josh Weber, Chad Urban, Dan Trost, Calvin Esche, Bruce Thiewes, Stacey DeBoer, Stacy Hinders, Van Schiefelbein, Mike Thielen, and Lance White

Horizontal Career Path Team: Jim Hyde, Matt Brey, John Gerlach, Craig Smith, and Heidi Olson



SD DOT

Extreme Weather Activity Assistance Team
Cleanup of Lake Herman State Park



Central Office brought love to **PAWS Animal Rescue** in Pierre with the Dog Days of Summer campaign.

The campaign raised \$336 in cash, donated many items from the wish list, as well collected a nice stack of Lynn Dakotamart receipts for additional dollars.



SDDOT Employee and Superhero Tony Wieser helps a stranded motorist in Highmore by giving the pickup and camper a push out of the Intersection!!! **Way to Go TONY!!**



SDDOT Employee News and Updates. . .

July Longevity:

Margo McDowell, Transportation Research Engineer - 20 Years (Central Office)

Dail Mollard, Labor Law Compliance – 20 Years (Central Office)

Glenn Walz, Region Design Engineer – 25 Years (Mitchel Region)

Glenn Walz, Region Design Engineer, (right) accepted his 25 year pin from **Monte Rice, Mitchell Region Senior Design Manager.**



Dail Mollard, Labor Law Compliance Officer, accepted her 20 year pin from **Craig Smith, Director of Operations.**



New Hires:

Wayne Cleveland, Journey Transportation Technician, Aberdeen

Jesse Muth, Jesse Highway Maintenance Worker, Salem

Adam Huckins, Materials Laboratory Technician - Cement Lab, Pierre

Parks Brawand, Project Engineer, Aberdeen

John Premus, Highway Maintenance Worker, Webster

Joshua Stortroen, Highway Maintenance Worker, Mitchell

Joshua Timmerman, Highway Maintenance Worker, Sioux Falls

Elizabeth Jensen, Project Engineer, Rapid City

Tyler Ray, Highway Maintenance Worker, Custer

Ryan Cogley, Highway Maintenance Worker Sioux Falls

Dexter Watkins, Journey Transportation Technician, Aberdeen

Levi DeVries, Journey Transportation Technician, Mitchell

Stuart Stevermer, Journey Transportation Technician, Brookings

Jayson Hall, Highway Maintenance Worker, Clear Lake

Promotions/Lateral Transfers:

Dennis Brooks, Land Surveyor-In-Training, Rapid City

Steve Weisz, Region Operations Engineer, Mitchell

Logan Gregg, Highway Maintenance Worker, Pierre

SDDOT Employee News and Updates . . .



Patti Devitt, Accounting Manager, would like to introduce her first grandchild, please meet . . .

Jameson John Devitt

Born July 8, 2022

6 lbs. 10 oz. and 19 1/2 inches long



Laurie and **Gary Olivier, Lead Highway Maintenance Worker (Pierre),** are grandparents once again with the arrival of twins - their fifth and sixth grandchildren! The twins were born on June 27, 2022.



Gentry Randall was 5 lbs. 3.2 oz.

Aria Anne was 5 lbs. 10 oz.

Gentry and Aria are the first children for Gary and Laurie's daughter, Makenna.



Introducing . . . Reagan

Meet **Secretary Jundt's** newest granddaughter Reagan, who is barely a week old!

Reagan was born to Joel's daughter Sarah and husband Matt Benne.





Congratulations to our LDP Cohort #2 Graduates

July 28, 2022



The Transportation Commission toured the Pierre/Ft. Pierre Bridge Project on July 28, 2022.



In Sympathy . . .

Our sympathy to **Dave Madden, Engineering Supervisor in Pierre**, on the passing of his wife **Carla** on Friday, July 1, 2022, at Avera McKennan Hospital in Sioux Falls.

Mass of Christian Burial was held on Wednesday, July 6, 2022, with interment at Scotty Philip Cemetery in Fort Pierre.



Susanne Ruhnke, retired SDDOT Data Imaging Specialist, (Central Office) passed away on July 26, 2022. Funeral arrangements are pending at this time.

Our sympathy to Susanne's family, friends, and SDDOT co-workers.