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## Connecting Bridge


### YANKTON'S NEW DISCOVERY

The new \$23.9 million Discovery Bridge connecting South Dakota and Nebraska was officially dedicated on Saturday, Oct. 11. Hundreds of people gathered to participate in the dedication ceremony and celebration festivities.

This project was a joint effort among the Nebraska Department of Roads, South Dakota Department of Transportation and the City of Yankton. Construction of the four-lane bridge began in the summer of 2007 and was completed in just over a year. As Sen. John Thune said during his dedication

speech, "The bridge was built under budget and on time." (The bridge was actually completed a year earlier than expected.)

The Discovery Bridge was built to replace the existing, 84 year old Meridian Bridge. Annual rehabilitation costs for the Meridian Bridge were higher than building the Discovery Bridge and spreading that cost over 75 years.

Thank you to everyone for your efforts on a job well done. 



**Above: A parade of cars waiting to cross the Discovery Bridge for the first time. The parade was part of the celebration festivities.**

**Below: Darin Bergquist, DOT Secretary, speaking at the Discovery Bridge Dedication ceremony.**

# Concrete Achievements

## WAY TO GO DOTers! KEEP THE ACHIEVEMENTS GOING.

In September, John Keyes, DOTer from the Right of Way Office in Pierre, took first place in the men's division of the North Dakota Kroll's Roughrider Marathon. Keyes completed the 26.2-mile course in 2:49:26. It was Keyes first marathon win. Way to go John!

For the complete article, view <http://bismarcktribune.com/articles/2008/09/21/news/sports/local/165042.prt>.

Congratulations to Darin Noyes for being chosen as the 2nd quarter winner of the Sioux Falls Area Triple A Program. Darin was nominated for volunteering to take on extra duties, in addition to his own, when a Lead Highway Maintenance Worker needed to take a two month leave of absence.

Darin performed the additional duties that are normally done by the LHMW along with his own work assignments, all at his current salary with no additional compensation. Darin recognized and understood the need for the LHMW duties to continue. Because of his devotion to step in and do what it takes, the everyday functions of the maintenance unit went on as normal.

For his achievement, Darin will be rewarded with use of an employee of the quarter parking spot and a \$20.00 gift certificate to use towards a purchase at Pheasantland Industries.



**Darin Noyes, 2nd quarter Triple A Program winner.**



**Butch Yesda, Sioux Falls DOT, took 2nd place honors in the Arlington Car Show.**

The SDDOT was named the 2008 Vision Award: The Best in Business Performance Management winner. DOT was nominated for the award for the use of SAS software. The DOT spent four years working on an Activity Based Costing Model and developing Performance Measures for each office.

DOT will be featured in an upcoming issue of *Business Finance Magazine*.

Brad Norrid's daughter, Casey, won the State Hershey Track meet in the 11-12-year-old girls softball throw, which was held in Watertown in June. She was then selected to go on to the National Finals in Hershey, PA, as part of the Midwest Regional Team. Casey placed seventh at the national meet with a throw of 131 ft., 9 in. Brad is the Engineering Supervisor for the Winner Area.



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October 7, 2008

S.D. Department of Transportation  
Mitchell, SD

To Whom It May Concern:

I wanted to write a short letter saying "Thank You" for all the help your workers gave the Sheriff's Office and the Highway Patrol the day the hog truck rolled over on Highway 37 by Wal-Mart.

I hope you know how much our Officers appreciate what your workers do for us. When there are problems with animals on the roadways, it seems like the Highway boys are always ready to help.

That was quite a mess to deal with that day. A lot more pigs were going to die if quick action was not taken. Without your Departments help and the help of the other workers that stopped by, the owners' losses would have been much, much greater.

Thanks again for your quick response. If our office can ever do anything for you, please give us a call. It is a good feeling to know that we can call on your workers and your equipment in times of emergencies.

Sincerely  
  
Steve Brink  
Davison County Sheriff's Office

Dave Miles  
Davison County Sheriff

**The Mitchell DOT Office received this letter of appreciation from the Davison County Sherriff Office thanking employees from the Mitchell Area and maintenance crew.**

# Highway of Life

## SIGNIFICANT EVENTS IN THE LIVES OF SDDOT EMPLOYEES

### New Employees



**Ryan Huber**, Environmental Project Specialist, Pierre, May 27.

**Brett Rathgeber**, Highway Maintenance Worker, Tyndall, Aug. 25.

**Tony Wagner**, Materials Lab Technician, Materials & Surfacing, Aug. 28.

**Martin Hartzel**, Highway Maintenance Worker, Brookings, Sept. 2.

**Shayne Ludwig**, Highway Maintenance Worker, Junction City, Sept. 9.

**Gene Walth**, Draftsman, Bridge Design, Sept. 15.

**Larry Mudder**, Highway Maintenance Worker, Tyndall, Sept. 24.

**David Delbridge**, Highway Maintenance Worker, Rapid City, Sept. 29.

**Bryan Rick**, Highway Maintenance Worker, Watertown, Sept. 29.

**Larry Schanbeck**, Highway Maintenance Worker, Watertown, Sept. 29.

**Lanny Iwan**, Business Manager, Rapid City, Oct. 1.

**Jerry Herndon**, Highway Maintenance Worker, Flandreau, Oct. 14.

**Mark Leisinger**, Highway Maintenance Worker, Flandreau, Oct. 14.

### Promotions



**David Anderson**, Transportation Engineering Specialist, Local Transportation Programs, Aug. 24.

**Joel Jundt**, Region Engineer, Rapid City, Sept. 9.

**Melvin Malsam**, Highway Maintenance Supervisor, Aberdeen, Sept. 9.

**Brenda Flottmeyer**, Transportation Lead Project Engineer, Rapid City, Sept. 24.

**John Gerlach**, Transportation Lead Project Engineer, Rapid City, Sept. 24.

**Gary Olivier**, Civil Engineering Technician, Materials & Surfacing, Sept. 24.

**Christina Booth**, Materials Lab Technician, Materials & Surfacing, Sept. 24.

### Transfers



**Sheila Jandt**, Senior Secretary, Materials & Surfacing, Sept. 9.

**Daris Ormsher**, Research Engineer, Research, Sept. 24.

**Kraig Scherr**, Highway Maintenance Worker, Belle Fourche, Sept. 24.

**Steven Smith**, Highway Maintenance Worker, Belle Fourche, Sept. 24.

**Andrew Anderson**, Highway Maintenance Worker, Sioux Falls, Oct. 9.

**Jon Becker**, Project Engineer, Local Transportation Programs, Oct. 9.

**Jason Hammrich**, Equipment Technician, Aberdeen, Oct. 9.

**Keith Long**, Project Engineer, Mitchell, Oct. 9.

**Tyler Small**, Highway Maintenance Worker, Junction City, Oct. 9.

**Paul Nelson**, Highway Maintenance Worker, Hot Springs, Oct. 24.

### Anniversary Milestones



#### 20 years

**Larry Noem**, Project Technician, Custer, Sept. 6.

**Patrick Bootz**, Highway Maintenance Worker, Bison, Sept. 19.

**Keith Voegeli**, Highway Maintenance Supervisor, Sioux Falls, Oct. 19.

#### 25 years

**Charles Goldammer**, Highway Maintenance Supervisor, Mitchell, Sept. 2.

**Ramon Laroque**, Lead Highway Maintenance Worker, Pierre, Sept. 6.

**Albert Janish**, Highway Maintenance Worker, Chamberlain, Sept. 26.

**Randall Tollefson**, Lead Highway Maintenance Worker, Mitchell, Sept. 26.

**Thomas Newell**, Draftsman, Construction & Maintenance Services, Oct. 16.

**John Forman**, Region Engineer, Pierre, Oct. 21.

**Blaine Wiseman**, Lead Highway Maintenance Worker, Milbank, Oct. 22.

**Wayne Cramer**, Technical Administrator, Huron, Oct. 23.

#### 30 years

**Brian Bullert**, Highway Maintenance Worker, Milbank, Oct. 22.

#### 35 years

**Lyle Heinrich**, Lead Highway Maintenance Worker, Rapid City, Sept. 4.

#### 40 years

**Roger Liebig**, Project Technician, Mobridge, Sept. 23.

# Highway of Life (continued)

## SIGNIFICANT EVENTS IN THE LIVES OF SDDOT EMPLOYEES

### Departures



The last day for **Levi Briggs**, was Sept. 23. Levi took a position with the Department of Public Safety.

**Christopher Cressy's** last day was Sept. 26. Christopher accepted a position with the Federal Bureau of Investigation.

### Retirements



**Tom Stowsand** retired from the Sioux Falls DOT on July 23, 2008, after serving over 35 years with the Sioux Falls Maintenance Unit.

### New Arrivals



**Robert & Nancy Rohla** welcomed a grandson, Jacob Robert Flemmer, to the world on July 21. Jacob weighed 8 lb.,



Jacob Robert Flemmer

8 oz. and was 22 in. long. Robert is a Highway Maintenance Worker in Presho.

**Jeff Lemieux** is the proud grandpa of a baby boy, Jeremiah James Persaells Jr. Jeremiah was born Aug. 9 and weighed 7 lb., 10 oz. and is 21 in. long. He joins big sister Annabelle Lynn. Jeff is a Region Operation Technician in Pierre.

**Pat and Connie Bootz** welcomed a grandson, John Allen Corcoran, on Aug. 13. John weighed 6 lb., 11 oz. He joins big sister Belle JoLee. Pat is a Highway Maintenance Worker in Lemmon.

**Jerry Poseley** is the proud grandpa of a baby girl, Leah Hart Poseley. Leah was born July 27 and weighed 8 lb., 5 oz. She joins big brother Ewan. Jerry is a Highway Maintenance Worker in Bison.

**Wayne Olson** welcomed a grandson, Caden Michael, on Sept. 9. Caden weighed 7 lb., 10 oz. and was 19.5 in. long. Wayne is a Senior Right-of-Way Specialist in Sioux Falls.



Caden Michael

**Karen and Nathan Borrud** are the proud parents of a baby boy, Nolan Andrew.



Nolan Andrew Borrud

Nolan was born Sept. 10 and weighed 8 lb., 1 oz. and was 18 3/4 in. long. Karen is a Management Analyst for Finance in the Central Office.



**Commissioner Rodney Fouberg was inducted into the South Dakota Hall of Fame in September.**

## Congratulations to all!



Jim Deuchar, 52, Lead Worker for Unit 354 in Pierre, passed away in his sleep on Saturday, Sept. 13, 2008. Jim dedicated almost 30 years of his life to the Department of Transportation, beginning in Mission, SD. He was known around the Pierre Region for his ready smile and willingness to lend a hand wherever needed. Jim won 1st place at the 2007 State Snowfighter's Rodeo.

Jim will be missed by his wife, Mary, his four children, six stepchildren and nine grandchildren as well as those of us at the Pierre Region DOT.

## Researching Our Work

## Moving Forward

### STUDY INVESTIGATES CHLORIDE COMPOUNDS' EFFECTS ON PCC

### COMMISSION APPROVES STIP

By Julie Bolding  
Management Analyst

What some engineers have suspected for years appears to be true: magnesium chloride has a damaging effect on portland cement concrete.

But what a pooled-fund study spearheaded by SDDOT could not determine was how much the deicing compound shortens the life of the pavement.

This uncertainty leaves SDDOT maintenance personnel without a perfect solution to keeping pavement surfaces safe this winter while simultaneously protecting pavement life. Magnesium chloride and sodium chloride use likely will remain unchanged from previous years, although the department is looking at ways of using these materials more efficiently. Sodium chloride was found not to cause any problems beyond reinforcing steel corrosion.

Sioux Falls Area Engineer Craig Smith presented the results of "Investigation of the Long Term Effects of Magnesium Chloride and Other Concentrated Solutions on Pavement and Structural Portland Cement Concrete" at the Aug. 12 Research Review Board meeting. A team from Michigan Technical University, the University of Toronto and Applied Pavement Technology did the research, which involved repeated applications of concentrated solutions to portland cement concrete specimens.

"The effects of magnesium chloride and calcium chloride on concrete durability over time need to be determined based on field evidence," said Dan Johnston, the Office of Research's concrete expert and a member of the pooled fund study's technical panel. "We know the potential for damage exists and there is some evidence of concrete deterioration from the field. We know the damage takes many years to manifest and these concentrated solutions have not been used nationally long enough for a clear picture to have developed, though evidence is mounting. Ultimately, we need life cycle cost as well as cost/benefit information to deal with this problem in the smartest manner

possible."

The study tested calcium chloride as well as magnesium chloride. SDDOT has used calcium chloride in the past but the decision to phase out its use was made before this study's results were announced.

The damage to portland cement concrete by magnesium chloride or calcium chloride is caused by two separate reactions. In one, the cement paste within the concrete is weakened over time from the loss of calcium hydroxide from the pore structure of the paste. In the second reaction, an unstable calcium oxychloride is formed at temperatures just above freezing, causing expansion.

How this study's results will affect SDDOT operations is a matter to be discussed at length within the department in coming months.


Members of the technical panel made these recommendations:

- The Office of Operations Support should be cognizant of the deleterious effects of magnesium chloride concentrated solutions in planning future maintenance strategies. The technical panel thought it impractical, though, to require use of only lower-concentration solutions due to equipment plugging problems.

- SDDOT should prepare durable concrete mixtures that resist penetration by deicing chemicals. The department already routinely uses fly ash in concrete pavements and uses penetrating sealers such as silanes on bridge decks.

- The SDDOT should review concrete placement practices for improvements that might produce more durable concrete, especially in regard to extreme weather conditions.

- The SDDOT should restrict the use of deicing chemicals on concrete that is less than 30 days old.

SDDOT is in the process of soliciting participation in another pooled fund study of unresolved questions about magnesium chloride and calcium chloride use. "The other eight states participating in this study all agreed that further work is needed to truly understand the implications of continued use of these deicers over the long term," Johnston said. 

Transportation commissioners approved a 2009-2013 State Transportation Improvement Program (STIP) which focuses on improvements of the existing highway system.

Mike Behm, assistant planning and engineering director, told commissioners at their Aug. 28 meeting that the new STIP once again shows the department to be in preservation mode.

"As far as large projects being moved out of the tentative STIP, there really weren't too many. We didn't have very many large projects in the STIP to begin with," he said. "A lot of the projects we're seeing right now are resurfacing, chip seals, bridge rehab projects. Those did change a little bit but more or less just costs and maybe working on years."


The Marion Road interchange west of Sioux Falls did move from this year to next because of scheduling conflicts, he said. Reconstruction of the northbound lane of I-29 from Elk Point to the SD50 exit switched years with the southbound lane project in 2010 and 2011.

New STIP projects that will be done in 2009 include:

- Modifying the Vivian/Presho west- and eastbound rest areas and upgrading them to Americans with Disabilities Act standards.
- Modifying the Northern Hills, Tilford and Wasta rest areas.
- Joint replacement on Silver Street in Rapid City, 1.2 miles south of I-90.
- Approach slab and joint replacement on the westbound lane over American Crow Creek, and the westbound lane over a county road 0.9 west and 1.0 west of the Oacoma interchange.

The LaCrosse Street bridge in Rapid City, which was hit earlier this year, will be repaired in 2009 rather than this year.

The 2009-2013 STIP has a new category, Safe Routes to School programming. Projects are scheduled for 2009 in Sioux Falls, Hartford, Parker, Brookings, Enemy Swim Day School and other locations.

The department expects Congress to continue funding South Dakota public transit programs at the same authorization levels as SAFETEA-LU. 

## Policy Update

“NBIS Safety Bridge Inspection,” DOT-P&E-BR-2.0: This policy has been amended to include responsibilities for the Bridge Inspection Team Leader and an updated organizational chart. <http://intranet.dot.sd.gov/policy/docs/DOT-P&E-BR-2.0.doc>

“Access Management and Corridor Preservation,” DOT-OS-OT-4.0: This policy has undergone major revisions. Under the new policy, when Department managers deny a request for relinquishment of access control in control-of-access areas, the applicant can request reconsideration by the Secretary. Control-of-access areas are areas where SDDOT has acquired access rights specifically to protect the road from access encroachment. Denials of relinquishment by the Department will not be forwarded automatically to the Transportation Commission. When the Department recommends approval of a relinquishment of access control, the final decision must be made by the Transportation Commission. It can approve, deny or defer the request. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OT-4.0.doc>

The Nov. 1-Apr. 30 limit in “Wintertime Use of State Vehicles by Maintenance Personnel,” DOT-OS-OM-9.0, was removed. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OM-9.0.doc>

“Scheduling,” DOT-OS-OM-7.0, was changed to reflect the current practice of scheduling sometimes being done by designees of the Maintenance Supervisors. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OM-7.0.doc>

“Air Quality Permits for Asphalt and Concrete Plants,” DOT-OS-OC-9.0, was reviewed and updated to refer to the Department of Environment and Natural Resources. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OC-9.0.doc>

The “Alternative Work Schedule Policy,” DOT-S-PER-4.0, has been in effect since 1998 but wasn't on the intranet. This new version clarifies the language of the 2003 version of the policy and adds a link to Form DOT-185, "Request for an Alternative Work Schedule." <http://intranet.dot.sd.gov/policy/docs/DOT-S-PER-4.0.doc>

“Field Activity Overtime/Flex Guidelines,” DOT-S-PER-3.1, went back to the paragraph-style format but is otherwise unchanged. <http://intranet.dot.sd.gov/policy/docs/DOT-S-PER-3.1.doc>

“Supply Administration,” DOT-OS-IS-2.1, was changed to no longer apply to materials laboratory employees, supervisors and materials. The requirement to upload fuel transactions onto transfer keys was eliminated. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-IS-2.1.doc>

“Work Zones for Interstate and Four-Lane Divided Highways,” DOT-OS-OC-8.0, was reviewed and reformatted, but there are no other changes. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OC-8.0.doc>

“PCCP Joint Sealing Requirements,” DOT-OS-OC-7.0, also was reviewed and reformatted, but there are no other changes. <http://intranet.dot.sd.gov/policy/docs/DOT-OS-OC-7.0.doc>

## Safety Corner

### Motor-vehicle deaths down 10% in first eight months of 2008

Motor-vehicle deaths for January through August of 2008 totaled 25,690. This figure is down 10% from the corresponding 8-month period in 2007. The August figure for '08 was 13% lower than the '06 figure. The 8-month total for '07 was 28,670, a 3% decrease from '06. The '06 figure was less than 0.5% lower than 2005. The estimated annual mileage death rate is 1.3 deaths per 100 million vehicle miles traveled, a 7% decrease from '07.

Disabling motor-vehicle injuries for the first eight months of '08 are estimated to be about 1,387,000, a 7% decrease from '07.

The estimated cost of motor-vehicle deaths, injuries, and property damage through August was \$149.0 billion, a 4% decrease from '07. The costs include wage and productivity losses, medical expenses, administrative expenses, employer costs, and property damage.

**For more safety tips:** contact Cliff Reuer, SDDOT Traffic and Safety Engineer, 773-5361.

## Connecting the DOTs

is the monthly employee newsletter of the South Dakota Department of Transportation.

This and previous issues are available on the DOT Internet site: [www.SDDOT.com](http://www.SDDOT.com)

To report news/events: Contact Amy Brady at 773-5103 or at [Amy.Brady@state.sd.us](mailto:Amy.Brady@state.sd.us)

