Getting to Know

Keeping Utah Moving
Utah Department of Transportation
By the Numbers

- 4 Regions
- 66 Innovations Implemented in 2022
- 48,608 Lane Miles
- 1,700+ Employees
- 518 Snow Plows
- 1,973 Bridges
Program Engagement

- Universities
- Consultants
- Contractors
- Research Staff
- Region Groups Divisions
- National Groups
  - FHWA, AASHTO, TRB
- UDOT Innovation Council
Innovation Council

INNOVATION COUNCIL ORG CHART

Carlos Braceras
Executive Director

Teri Newell
Deputy Director of Planning and Investment

Share Miller
Director of Finance

Share Young
Director of Human Resources

Jeff Elder
Director of Safety and Legislative Services

Eilazoo McMullan
Director of Strategic Communications

Abdel Walil

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Ideas Portal – UDOT Learning Portal
Abdul Wakil contributed an idea to this group
15 hours ago

IDEA SHARE: Georgia DOT Activates Bridge Marketing Web Site

"Georgia is home to almost 15,000 bridges and replacing those bridges over time helps ensure the state's infrastructure remains in a state of good repair. Some of these bridges are historic and, in compliance with federal law, the agency makes them made available for donation to a state, locality, or responsible private entity." https://ashtojournal.org/2022/09/06/georgia-dot-activates-bridge-marketing-web-site/
Annual Innovation and Efficiency Report
Primary function:
Share ideas and knowledge
Celebrate accomplishments
Promote a Culture of Innovation
Annual Innovation and Efficiency Report

Production Facts and Figures:

- First report in 2006
- Grouped in eight subject
- Print and electronic versions
- Labor
- Hours
COMMUNITY AND ENGAGEMENT

UDOT’S STATEWIDE FIBER OPTICS PROGRAM BECOMES NATIONAL MODEL

For more information, contact UDOT Fiber Optics, Traffic Management Division, Operations

PROBLEM During the last 20 years, access to reliable, high-speed broadband internet has been critical to supporting and expanding UDOT’s intelligent transportation system (ITS). UDOT uses roadway fiber to connect traffic cameras, road signs, weather stations, and other sensors to the UDOT fiber network to provide instantaneous traffic updates. Many rural areas of Utah lack access to a broadband connection, which means traffic management teams are unable to evaluate road conditions in real time. Expanding the statewide UDOT fiber network results in safer roads and better mobility while positioning Utah as a leader in connected and automated vehicle (CAV) technology.

CHANGE In 1999, Utah passed legislation to allow telecommunication providers access to right-of-way (ROW) on the Interstate Highway System. UDOT’s Fiber Optics Manager recognized the incredible opportunity this presented for advancing traffic management capabilities and expanding broadband access across the state. This included an opportunity for leveraging public-private partnerships that benefit both UDOT and local telecommunication providers. UDOT is now considered the pioneer...
VARIABLE MOVEMENT LANE AT STATE ST & SOUTH TEMPLE HELPS REDUCE RUSH HOUR TRAFFIC

PROBLEM Before the pandemic, it was common to see southbound State Street in Salt Lake City backed up onto Capitol Hill during the morning rush hour. Most people wanted to turn left at South Temple to head east, but there was only one left turn lane to handle the demand. Due to the historic nature of the surrounding properties (the Lion House, the Eagle Gate Monument, etc.), it was highly unlikely that UDOT would be able to widen the roadway to accommodate a second left turn lane. UDOT needed another solution to accommodate left turns during the morning rush hour.

CHANGE State Street southbound has three through lanes, and often traffic demand does not require all three lanes. Because of this lower through-lane demand, Traffic Maintenance Division (TMD) engineers decided to make the number one through lane a variable lane that drivers could use in the mornings to turn left. To minimize driver confusion, the TMD decided to make the variable lane available for both through traffic and left-turning traffic during the morning. This information is messaged with an overhead dynamic electric sign located about halfway up the block and with signs and signals at the intersection.

RESULT While UDOT has not conducted a formal study since this lane use change was implemented, queues on State Street are clearly much shorter than before. However, without formal study, it is not clear if these shorter queues are due to the variable lane or if they are due to general traffic reduction caused by COVID-19 impacts. This variable lane solution would not work everywhere, but it was a great fit for this particular location. Thus far, it appears that the TMD was able to better utilize the existing right-of-way and move people more efficiently. Future traffic studies will further inform UDOT on the success of this innovation.

For more information, contact UDOT’s Traffic Management Division.
CONTROL ROOM GUIDE GOOGLE SITE IMPROVES INCIDENT RESPONSE TIME

For more information, contact UDOT Traffic Operations Center, Traffic Management Division, Operations

PROBLEM Control Room operating procedures, policies, and contact lists were stored and accessed via a free TWiki. The site was difficult to update and had limited organizational capabilities which cost time when responding to incidents.

CHANGE UDOT designed a new Google site called the “Control Room Guide” to store and access operating procedures, policies, and contact lists.

RESULT With the “Control Room Guide,” access to necessary documents is faster and more intuitive, resulting in better incident response time for Control Room staff. The site is also easier to update and contains training-specific material that did not exist before.

LINK: UDOT NEWS ARTICLE
ROAD RAKE BRUSH
GUARD PREVENTS
WEAR AND FAILURE

For more information, contact UDOT Region Three Maintenance

PROBLEM Maintenance crews using a Road Rake found that if they got too close to the barrier wall, they risked damaging the spinning brush disk plate. If the plate edge was ground down by wear against the concrete barrier, the brushes would fall off and the equipment would not work properly.

CHANGE The Lehi Station crew installed a used plow-end guard on the rake that serves as a bumper and guard if the driver gets too close to the barrier. The guard is bolted onto the rake and is painted bright orange to help with visibility.

RESULT With the end guard installed, techs have an indicator that lets them know they are pushed up against the barrier. This helps protect the brush mounting plate from grinding against the barrier and wearing off the attachment points for the brushes. The guard can be extended as it takes damage from making contact with the barrier.

These guards extend the useful life of the brush-holding disks indefinitely. By salvaging used plow guards, this solution comes at no additional cost as these guards would normally be discarded after use on a plow.
Innovation Station Video Series

Promote a Culture of Innovation

Share ideas and knowledge

Celebrate accomplishments
Innovation Station Update - IMT QR Code for Customer Service Survey

Innovation Station Update highlighting an innovation from the Incident Management Team. The IMT need a way to increase the customer service feedback response after rendering services to motorists on Utah roads. The team developed a new online survey that can be accessed from a...
2022 Innovation & Efficiency Annual Report

UDOT 2022 I & E Report

https://drive.google.com/file/d/1D2hbjVBBuSqmoczuRz9IFpRqq2P4Oo1Y/view
Innovation Station Video Series - YouTube

https://www.youtube.com/playlist?list=PLIUbVJOQ00BpFjspOVcQ3OGb7kHjFRhKw
Innovation Station Video Series

Statewide Innovation Program

UDOT's Statewide Innovation Program is led through the Research and Innovation Division via UDOT's former Technology and Innovation Group. At UDOT, innovation efforts are an essential part of everyone's job. Many employees are hired and promoted based on their ability to influence innovative outcomes.

This strong culture of employee-driven innovation has deep roots that reflect positive credit on all of those who came before us. Our predecessors fought hard for the modernization of Utah’s transportation system. Current employees have also risen to meet today's demanding transportation challenges in a way that honors those who first lit the path for us to follow. In that sense, UDOT's earned national reputation for innovation excellence is by deliberate design (as opposed to being accidental).

This page is dedicated to continuing UDOT's proud tradition of being a world-class leader in the transportation innovations space. Please review this content to learn more about how UDOT continues to invest in a better tomorrow, and how you can accelerate these efforts by actively participating today!

https://www.udot.utah.gov/connect/employee-resources/innovation-station/
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