

The Hidden Costs of a Gravel Road

By Bruce Drewes, Manager, LHTAC T2 Center

With half of the Local Highway Jurisdictions Highway System in Idaho being gravel or dirt; what type of complaints does your organization receive? Are there complaints about dust, the roughness, the loose gravel, the noise as well as numerous other things?

I remember living on my Uncle's dairy farm outside of Moreland, Idaho. I can clearly hear my Aunt complaining to my Uncle about all of the dust in the house and all of the time she had to spend cleaning, she could not wait to move back into town were the roads where paved. This problem of dusty roads is as old as the country itself, but we have limited budgets and agencies can't pave every road they have. What is a Commissioner or Council member to do?

This year, LHTAC's Idaho T2 Center in conjunction with the Gravel Roads Academy sponsored the Third Annual Gravel Roads Courses. This year's program was hosted by Madison County in Eastern Idaho and Grangeville Highway District in North Central Idaho. The focus of the Academy was to provide tools and resources to agencies that administer gravel or dirt roads by examining: Road Design, Material Specification, Road Maintenance, Road Stabilization, Program Efficiency and Field Training and Application of Materials.



Gravel Roads Course 2013

The program in Madison County was attended by 45 Supervisors and Technicians; the program in Grangeville was attended by 53 Supervisors and Technicians. Some of the key elements from these trainings include;

- Materials need to have the right amount of "Binder" (200 Sieve material) to help hold the material together
- When you purchase or produce gravel road material, it needs to be produced to a specification with at least 8 to 16 percent "Binder"
- The assurance you get for a couple of hundred dollars testing the material for gradation, liquid limits and plasticity index (P.I.) far out weighs the cost of the tests.
- Crown of the gravel road enables the roadway to drain and insure full usage of both sides of the road; ideal

In This Issue...

The Hidden Costs of a Gravel Road....Cover & Page 3

Officer Election at LHTAC....Page 2

Annual Retreat....Page 3

Staff News....Page 3

Every Day Counts Initiative.....Pages 4 & 5

T2 Center 2013 Road Masters & Scholars Recipients....Page 6

Annual iWorQ 2013 User Conference....Page 7

T2 Center Classes....Page 7

Safety Fest of the Great Northwest Lewiston....Page 7

Calendar Of Events....Back Page

Continued on Page 3...



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Association of Idaho Cities

Stuart Davis, Executive Director
Idaho Association of Highway Districts



IDAHO TECHNOLOGY TRANSFER (T2) CENTER ADVISORY BOARD

The members listed below help guide and direct the policies and activities of the LHTAC T2 Center. You are invited to contact any of them to comment, make suggestions, or ask questions about the T2 Program.

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Buhl Highway District
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Bannock County Road & Bridge Dept.
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Clearwater County Road & Bridge
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Susan Lasuen, Office Manager
Cindy Stewart, Publication/Council Manager
Nancy Ziebarth, Secretary/Receptionist
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Wayne Herbel, PE, Federal-aid Area Manager
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G. Daniel Shirilla, Federal-aid Financial Manager
Vicki Courtois, Federal-aid Administrative Assistant
Craig Herndon, Federal-aid Engineer Assistant
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Karissa Hardy, PE, Environmental Engineer
Todd Bartolome, PE, Construction Engineering Manager
Odo Grandi, PE, Construction Staff Engineer
Steve Sprague, Construction Coordinator
Byron Walker, Construction Intern
Bev Williams, Construction Records Inspector
Matthew Syphus, GIS Specialist
Bruce Drewes, T2 Manager
Lorie Cover, T2 Training Coordinator
Denise Shields, T2 Event Coordinator
Doug Chase, PE, T2 Instructor

Officer Election at LHTAC



On June 14, 2013 the quarterly meeting of LHTAC was convened and the following members were elected to their respective offices to become effective July 1, 2013.



LHTAC Chairman
Dan Schaeffer, Commissioner
Hillsdale Highway District



LHTAC Vice Chairman
Don Ebert, Commissioner
Clearwater County



LHTAC Secretary/Treasurer
Randy Prescott, Councilor
City of Soda Springs

We wish to thank Mayor Mac Pooler, City of Kellogg for his outstanding leadership as LHTAC's past Chairman (2012-2013).



For the past three years, Mayor Mac has served on the Executive Committee since being appointed by AIC in 2008.

Local Highway Technical Assistance Council (LHTAC)

Idaho Technology Transfer (T2) Center—LTAP

3330 Grace Street, Boise, ID 83703

Phone: (208) 344-0565 (800) 259-6841

Fax: (208) 344-0789

LHTAC website, www.lhtac.org

LHTAC T2 Center website, www.idahot2.org

Continued from Front Page...

crown is between 4% -5%, much steeper or flatter will lead the traffic to traveling down the middle of the roadway. The second day was spent in the field covering:

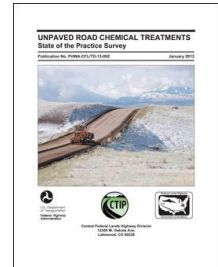
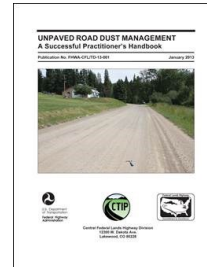


Gravel Roads Field Day 2013

- Equipment walk around inspection,
- Field sampling and graduation,
- Checking grade and crown,
- Proper Grading and Compaction,
- Application of Stabilization Chemical

This was the third year that the T2 Center, Gravel Roads Academy, along with Road Wise and

Dust Busters Chemicals by Central Federal Lands and the Dust Institute sponsored this program.



For more information, you may download both above reports for free by visiting www.cflhd.gov. These reports are only published electronically.

Annual Retreat

LHTAC held its Third Annual Staff Retreat April 26th at the Boise Watershed Project.

Staff participated in a full day filled with a variety of team building activities, a training on communication and a session to update our strategic plan. Last year, at the 2012 Staff Retreat, we updated our strategic plan which is slated to last three years, 2012-2015.

We have committed to meeting our goals laid out in the plan and are continually reviewing our progress and achievements. One of LHTAC's main focuses is providing more communication and better resources for all Local Highway Jurisdictions. Look for updates and changes to all of our communication in a hope to better service Locals. Please let us know if you have any suggestions to help improve our communications.



LHTAC Staff Retreat April 2013

STAFF NEWS

Laila Kral (formerly Maqbool), P.E. married in May.

Scott Ellsworth has been promoted to Federal-aid Manager.

Jerry Flatz has stepped back from the Manager role, and is now a Federal-aid Area Manager.

Vicki Courtois, Federal-aid Admin Assistant is retiring as of July 31, 2013.

Craig Herndon, joined LHTAC as a Federal-aid Engineer Assistant in May. Craig comes to LHTAC with over 13 years of experiencing working with local roadways. We are excited to have Craig as part of our team to provide outstanding service to Local Agencies. Welcome!

Congratulations!

Every Day Counts Initiative— Accelerated Bridge Construction

Accelerated Bridge Construction (ABC) technologies are changing the ways State Departments of Transportation (DOTs) do business. Mobility impacts on bridge construction projects can be reduced to as little as 48 to 72 hours and the project life-cycle from planning through construction can be trimmed by years. The accelerated project times significantly reduce traffic delays and road closures and could potentially reduce project costs. State-of-the-art ABC planning and construction methods, designs and materials produce safer, more durable bridges with longer service lives than conventional bridges. These timely innovations come when approximately 25 percent of our Nation's aging bridges need repair or replacement and our highways are already congested without the added strain of maintenance-related road closures.

Accelerated Bridge Construction uses safe and cost-effective planning, design, materials and construction methods to reduce the onsite construction time involved in building new bridges or replacing and rehabilitating existing bridges.



There are many ways to accelerate bridge construction. The FHWA Every Day Counts initiative focuses on three ABC technologies — including Slide-in Bridge Construction, Prefabricated Bridge Elements and Systems (PBES) and Geosynthetic Reinforced Soil-Integrated Bridge System (GRS-IBS).

- **Slide-in Bridge Construction** is a cost-effective technique for deploying PBES, or quickly replacing an existing bridge. A new bridge is built on temporary supports parallel to an existing bridge. Once construction is complete, the road is closed and the existing bridge structure is demolished or removed. The new bridge is posi-

tioned into place, tied into the approaches and paved within 72 hours.

- **Prefabricated Bridge Elements and Systems (PBES)** are structural components of a bridge that are built offsite or adjacent to the alignment. This practice reduces the onsite construction time and congestion that occurs using conventional construction methods.
- **Geosynthetic Reinforced Soil – Integrated Bridge System (GRS-IBS)** is a construction method combining closely spaced geosynthetic reinforcement and granular soils into a new composite material. The GRS-IBS is easy to build and maintain. It is also 25 to 60 percent more cost-effective than conventional construction methods.

BENEFITS

Benefits to employing ABC technology include:

- **Mobility impacts on bridge construction or replacement projects can be reduced to 48 to 72 hours with planning and bridge construction reduced by years.** Decreasing construction time directly benefits the public by significantly reducing traffic delays and road closures.
- **Reduced agency costs.** ABC can be the most cost-effective means of construction, especially when total project costs, including right-of-way acquisition, project administration, maintenance of traffic, environmental mitigation utility relocation, escalation or railroad flagging costs are considered.
- **Reduced user costs.** ABC dramatically reduces work zone road user costs associated with bridge construction projects on existing roadways.
- **Improved motorist and worker safety.** Each year 2,000 fatal crashes occur in work zones. Forty-four percent of bridge construction worker injuries involve a vehicle traveling through a work zone and two-thirds of these injuries are fatal. Limiting the duration of traffic impacts reduces the exposure to

Every Day Counts Initiative— Accelerated Bridge Construction continued

work zone crashes, increasing safety for both the construction worker and the traveling public.

- **More durable, longer-lasting bridges.** As our Nation faces the prospect of crumbling infrastructure, this innovation is not only effective, but also incredibly important to addressing this serious, time-sensitive challenge.
- **An effective solution to environmentally sensitive areas.** ABC technologies may also be an effective solution or alternative in areas where construction may be constrained or delayed by environmental considerations or limitations.
- **Public support.** Post-construction surveys of residents and businesses indicate high levels of customer satisfaction for ABC projects.

CURRENT STATE OF THE PRACTICE

Implementation of innovative ABC techniques contin-

BENEFITS	Slide-in Construction	PBES	GRS-IBS
Enhances Safety	✓	✓	✓
Can Lower Construction Costs	✓	✓	✓
Reduces Mobility Impacts	✓	✓	✓
Shortens Onsite Construction Time	✓	✓	✓
Reduces Environment Impact	✓	✓	✓
Can Improve Quality	✓	✓	✓
Increases Constructability	✓	✓	✓
Eliminates “Bump at the Bridge”			✓
Accommodates On-Site Modifications			✓

ues to gain traction and use. Over 800 bridges have been designed or constructed using PBES since October

2010. Using GRS-IBS, almost eight GRS-IBS bridges have been designed or constructed on the National Highway System (NHS) with another 75 GRS-IBS bridges off the National Highway System since October 2010. Several states have successfully completed bridges using slide-in bridge construction, which is emerging as a cost-effective means of rapidly moving a bridge into position.

SUPPORT AND AVAILABLE TOOLS

- Every Day Counts Accelerated Bridge Construction Website, <http://www.fhwa.dot.gov/everydaycounts/edctwo/2012/abc.cfm>
- FHWA Accelerated Bridge Construction Website, <http://www.fhwa.dot.gov/bridge/abc/index.cfm>
- *Accelerated Bridge Construction—Experience in Design, Fabrication and Erection of Prefabricated Bridge Elements and Systems Final Manual*. November 1, 2011, www.fhwa.dot.gov/bridge/abc/docs/abcmanual.pdf



Reference: www.fhwa.dot.gov/everydaycounts/



2013 "Drive Sober or Get Pulled Over" High-Visibility Enforcement Campaign

Please join thousands of law enforcement officers, State and local safety advocates, and the National Highway Traffic Safety Administration in this year's nationwide drunk driving crackdown, August 16 to September 2.

Research shows that high-visibility enforcement can reduce drunk driving fatalities by as much as 20 percent.

Joining the 2013 "Drive Sober or Get Pulled Over" crackdown is a testament to your commitment to public safety in your community. Your active and aggressive support will make a huge difference in saving lives on your local roadways.

Additional information is available at www.trafficsafetymarketing.gov/LaborDay2013/PEAK

 If you currently receive a paper copy of this Newsletter and would prefer an Emailed copy instead, please send your request to: cstewart@lhtac.org

T2 Center 2013 Road Scholar & Road Master Recipients



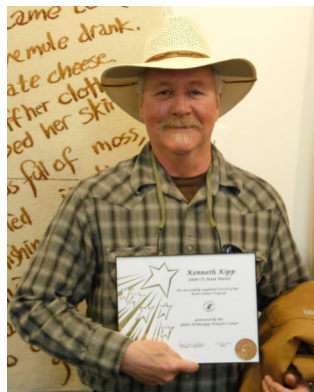
Central Highway District
From left to right: David Pratt, Neil Stigum, Paul Forsman



City of Twin Falls, Street Department
From left to right: Cody Brown and Chris Westburg

City of Post Falls, Street Department: Dan Johnson
(no picture available)

ROAD SCHOLARS



Kenneth Kipp
City of Moscow,
Engineering

M A S T E R S

Ray Awbrey,
City of Post Falls,



Annual iWorQ 2013 User Conference

iWorQ will be holding its annual users conference on August 6-7, 2013. The conference will be held at the SpringHill Suites Marriott in Logan, Utah. Local Government Agencies from all across the country will be in attendance.

The conference cost is \$100 per attendee or \$300 for an agency. The cost includes; sessions, one-on-one training and meals during the conference.

Registrants can choose from a list of appli-

cations to attend training on: Work Management, Citizen Request, Fleet Management, Permit Management, Code Enforcement, Pavement Management, Sign Management, Sewer Management, Hydrant Management, Street Light Management and Signal Management.

Registration is due by July 15th, or you will be charged an additional \$25 per attendee.

For Conference Information please call 888-655-1259.

Reference: www.iworq.com/iworqs-2013-user-conference/

T2 Center Classes

Designing for Bike and Pedestrian Safety

Who Should Attend: Local Highway Jurisdiction managers, Tribal Governments, City and County planners, engineers, officials and others involved or interested in bicycle and pedestrian design and safety issues.

Dates/Locations: This 1-day workshop will be held on July 22, 2013 at the ITD District 5 Office in Pocatello, Idaho. Course time is 8am to 4:30pm with a one-hour break for lunch.

Registration Information: This training is being offered at no charge. Lunch is "on your own". Registrations are accepted on a first come, first serve basis with priority given to Tribes, Local Highway Jurisdictions and City and County Public Works and Planning.

How To Register: Visit the T2 Center website: www.idahot2.org and log into the site with your user name and password.

Look for T2 Center's Fall Schedule of classes in September 2013!

Safety Fest of the Great Northwest



Safety Fest of the Great Northwest is in its 8th year of **FREE** 3 or 4 day training conferences available to the construction and general industry communities to provide safety and health training to the Northwest Region's front line workers. This includes anyone who desires to improve the safety performance of their business!

LEWISTON, ID

Dates: October 22-24, 2013

Location: LCSC – Williams Conference Center

500 8th Avenue

Lewiston, ID 83501

<http://www.safetyfest-lewiston.org>

For information or questions on any of the Safety Fest events, please contact Denise Shields, Event Coordinator, LHTAC/Idaho T2 Center 208-344-0565, dshields@LHTAC.org or visit the Safety Fest website listed. Future Safety Fest dates and locations can also be found at <http://idahot2.org/>.

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Idaho Technology Transfer Center
3330 W. Grace St.
Boise, Idaho 83703

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IDAHO TECHNOLOGY ASSISTANCE NEWSLETTER

JUNE 2013

CALENDAR OF EVENTS

September 13, 2013	Local Highway Technical Assistance Council (LHTAC) Meeting	Boise, ID
September 18-20, 2013	2013 Idaho City Clerks, Treasurers & Finance Officers Association Institute	Garden City, ID
September 23-25, 2013	Idaho Association of Counties Annual Conference	Boise, ID
October 22-24, 2013	Safety Fest of the Great Northwest—Lewiston	Lewiston, ID
November 12-13, 2013	Idaho Association of County Engineers and Road Supervisors	Boise, ID
November 13-15, 2013	Idaho Association of Highway Districts Annual Conference	Boise, ID
December 5, 2013	Idaho Technology Transfer (T2) Center Advisory Board Meeting	Boise, ID
December 13, 2013	Local Highway Technical Assistance Council (LHTAC) Meeting	Boise, ID

If you are interested in additional information regarding any of the above referenced meetings and/or training sessions, please contact LHTAC at (800)-259-6841 or lhtac@lhtac.org.