

## Traffic Safety Primer for Local Elected Officials

*Some things to think about before you seek traffic safety solutions.*

Elected officials are viewed by the public as “people of action.” On a daily basis, elected officials are forced to make numerous decisions that have significant impact on the community they represent. The public expects a skilled elected official to collect information, weigh the consequences, and make the best decision for their community. Because of the broad nature of decisions that elected officials face, they frequently find themselves working in areas outside their “comfort zone.”

Traffic safety is one of those areas. There are even aspects of traffic safety that encourage a false sense of security for elected officials, such as:

- **Counter-intuitive nature:** Many traffic safety decisions are counter-intuitive. For example, installing a stop sign to control vehicle speed can actually increase vehicle speeds as drivers accelerate to “make up” lost time.
- **Roads are a public asset:** The vast majority of roads are in the public trust. Because of this, many people feel that they have an interest in deciding the operation and function of roads in their community, which is true to an extent. However, when the general public begins to dictate design and operation factors without an understanding of their impact,

the chance is high that there will be negative consequence to safety.

- **Roads viewed as “commonplace”:** The public has come to view roads as an ordinary, simple feature of the landscape. This desensitization to the subtle design features of a road and the complex relationships that exist within roadway infrastructure lead to the belief that good, safe roads are “simple.” As you will see below, when it comes to road safety, it’s anything but simple.

### **Factors that may contribute to the number of crashes on local roads**

Many local roads have characteristics that pose safety challenges different than state and interstate highways:

- **Lane width:** State highways and freeways typically have wider lanes than the local roads. In addition many of these higher “functional class” roads also have wide paved shoulders. Research has shown that wider lanes and shoulders result in a decrease in the number of crashes, but may also lead to an increase in speeds—a different problem.
- **Curve and grade geometry:** Contrary to state highways and freeways, local roads generally have more locations where geometric design exceptions have been made around curves and hills. Local roads often have sharper curves and steeper grades because the cost of correcting the geometric problem may not be feasible based on the number of vehicles that use the road.

- **Signing and paint striping:** Generally speaking, local agencies do not have the budgets necessary to maintain signs and pavement markings on local roads to the same level as higher functional class roads. In some cases, poor markings and a lack of signing can influence the number of crashes that occur.

- **Roadside obstructions:** Higher functional class roadways (freeways and highways) typically have a wide, relatively flat, clear area outside the driving lanes where drivers who

### In This Issue...

- Traffic Safety Primer for Local Elected Officials.....Front Page & Page 3
- Council News.....Page 2
- Staff News.....Page 2
- What Makes a “Good” Road?.....Pages 4 & 5
- Liability Checklist for Local Transportation and Public Work Agencies.....Page 6
- 2009 Edition of the MUTCD.....Page 6
- Help for Local Governments in Complying with New Federal Requirements for Signs.....Page 7
- Can We Keep Our Historic Street Signs?.....Page 7
- How Accessible are Your Sidewalks.....Page 8
- Simple Asset Tracking with GPS.....Page 8
- Improve Your Grant Application Scores! .....Page 9
- 2010 Local Federal-aid Incentive & 2011 LRHIP Applications –Project Selection Process.....Page 9
- Spring Driving Tips.....Page 10
- T2 2010 Road Scholar Recipients.....Page 10
- National Work Zone Awareness Week 2010.....Page 10
- Idaho T2 Spring Classes 2010.....Page 11

*Continued on Page 3...*



## LHTAC COUNCIL MEMBERS

### Idaho Association of Highway Districts

**Dick Edinger, Chairman**  
Commissioner, East Side Highway District

**Clark Kauffman**  
Commissioner, Filer Highway District

**Dan Schaeffer,**  
Commissioner, Hillsdale Highway District

### Idaho Association of Counties

**Lan Smith, Vice Chairman**  
Commissioner, Gem County

**R. Tad Hegsted**  
Commissioner, Jefferson County

**Don Ebert**  
Commissioner, Clearwater County

### Association of Idaho Cities

**Mac Pooler, Secretary/Treasurer**  
Mayor, City of Kellogg

**Randall Prescott**  
Council Member, City of Soda Springs

### Ex-Officio Members

**Ken Harward, Executive Director**  
Association of Idaho Cities

**Stuart Davis, Executive Director**  
Idaho Association of Highway Districts

**Tony Poinelli, Deputy Director**  
Idaho Association of Counties



## IDAHO T2 ADVISORY BOARD

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

**Nate Marvin – Chairman**  
Public Works Superintendent  
City of Weiser  
208-814-1965

**Kevin Eckersell**  
Public Works Director  
Bonneville County Road & Bridge  
208-529-1290

**John Perry**  
Field Operations Engineer  
Federal Highway Administration  
208-334-9180 Ext. 116

**LeRoy Lewis**  
Road Supervisor  
Jerome Highway District  
208-324-4601

**Terry Little**  
Traffic Manager  
Ada County Highway District  
208-387-6140

**Steve Hyndman**  
Training Specialist  
Idaho Transportation Department  
208-799-4242

**Kim Reed**  
Road/Bridge Director  
Gem County Road/Bridge Dept.  
208-365-3305

**Stuart Davis**  
Executive Director  
Idaho Association of Highway Districts  
208-345-5176

**T2 Ex-Officio Member**  
**Lance Holmstrom**  
LHTAC Administrator  
800-259-6841

**T2 Associate**  
**Ned Parrish**  
ITD Research Program Manager  
208-334-8296



## STAFF

- Lance Holmstrom, M.U.P., Administrator
- G. Daniel Shirilla, Deputy Administrator
- Susan Lasuen, Office Manager
- Cindy Stewart, Publication/Council Manager
- Nancy Ziebarth, Secretary/Receptionist
- Gerald H. Flatz, P.E., Federal-aid Manager
- Wayne Herbel, P.E., Deputy Federal-aid Manager
- Dan Coonce, P.E., Deputy Federal-aid Manager
- Michael Moffett, Assistant Federal-aid Manager
- Vicki Courtois, Federal-aid Administrative Assistant
- Todd Bartolome, P.E., Construction Engineering Manager
- Jessica Barnes, Construction Records Inspector
- Jim Zier, Asset Manager
- Dylan Karaus, Highway Certification Coordinator
- Matthew Syphus, GIS Specialist
- Bruce Drewes, T2 Manager
- Lorie Cover, T2 Training Coordinator
- Denise Shields, T2 Event Coordinator

## Council News

LHTAC would like to thank Thomas Limbaugh, former Mayor of the City of Fruitland for his 7+ years served on the Council.

With his many years of city experience and knowledge, Tom brought much to the Council. He will be missed and we wish him all the best!

**Thank You!**

## Staff News

Todd Bartolome, P.E., Construction Engineering Manager and Nancy Ziebarth, Secretary/Receptionist have joined our staff. **Welcome!**

Jessica Barnes has been promoted from Secretary/Receptionist to Construction Records Inspector and will be assisting Todd with LHTAC's new construction program for the local stimulus projects.

**Congratulations!**

**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](http://www.lhtac.org)  
 Idaho T2 Center website, [www.idahot2.org](http://www.idahot2.org)

...Continued from Front Page



*Not all crashes are preventable: This serious fender bender was caused by careless driving on a wet and slippery road.*

run off the road can recover and get their vehicle back on the road or stop without causing a traffic crash. It is not uncommon for local roads to have little if any recovery area or to have obstructions directly adjacent to travel lanes.

- **Number of driveways:** Research has shown that an increase in the number of crashes comes with an increasing number of driveways. Local roads are primarily for local property access, and as such, have a significant number of driveways. Higher functional class roads typically do not have as many driveways or have active “access management” programs to control driveway access.

### **Factors that influence the number of crashes on all roads:**

#### **Driver condition**

- **Reflexes** – How quickly a driver can respond to a situation.
- **Attentiveness** – Is the driver paying attention?
- **Experience** – A less experienced driver has an elevated crash risk.
- **Alcohol & drug use.**
- **Driver aggressiveness** – Aggressive or frustrated drivers take more chances or are more likely to drive beyond their limit of control.

#### **Human factors**

- **Visibility** – How well can an object be seen? Humans have a cone of vision 15 degrees around the center of their focal point where items of interest will likely be noticed.
- **Expectancy** – Drivers use an understanding of past situations to lessen the mental workload of driving. For example, drivers in the Midwest expect that if they don’t see a stop sign at an intersection they can proceed without stopping. In Western states this is not always the case—there are many uncontrolled intersections without any signs or traffic signals.
- **Consistency** – When designs for roads and traffic control are applied consistently in the same situation, drivers have an easier time driving which results in fewer crashes.

- **Workload** – When a driver becomes overloaded with driving inputs they lose the ability to process information. An overloaded driver is actually impaired for a short period of time after the overload occurs. Overload situations include negotiating a complex, busy intersection, presence of billboards, etc.. Overloaded drivers may also suffer from a temporarily reduced field of vision (tunnel vision).

#### **Vehicle characteristics**

- **Handling characteristics** – Newer vehicles have improved handling characteristics that include reduced stopping distance due to anti-lock brakes, traction and skid control, and better cornering behavior. Older vehicles do not.
- **Maintenance** – Lack of vehicle maintenance such as poor brakes can lead to crashes, however the total percentage of crashes attributed to vehicle malfunction is very low – less than 5 percent of all crashes.

#### **Roadway characteristics**

- **Geometry** – how roadway features are designed has a major impact on safety. Everything from the radius of a curve, or the grade that a road takes through a hill, to the slopes leading into and out of the ditches can influence traffic safety. Geometric features should be reviewed whenever major road work is planned or when there is a high incidence of crashes at a specific location.
- **Maintenance** – Upkeep of roadside features such as shoulders and signs can impact traffic safety.
- **Surface condition** – Maintaining a smooth, high friction road surface can reduce the incidents of traffic crashes.

#### **Environmental conditions**

- Rain / snow / fog.

#### **Working with engineers**

In seeking solutions to traffic safety problems in your jurisdiction, you will be working with engineers. Engineers are guided by federal, state and local regulations, national and state guidance, and professional engineering judgment in making recommendations. Engineers are trained to make technically sound recommendations that are legally defensible, conservative and based on data. As part of this training, engineers depend on a “language” that is precise, full of jargon and esoteric. Many engineers do not view translating technical information to nontechnical audiences as part of their job. This is common with people involved in technical fields. As a result, a barrier to communication can develop that separates engineers from nontechnical audiences. So if your traffic engineer tells you that the LOS is C at the peak-hour of the traffic generator, and you don’t know what that means and how it may affect your decision-making, ask for clarification until you do!

*Reference: Kansas LTAP Newsletter, Fall 2009*

## What Makes a “Good” Road?



***Almost everyone thinks they know a good road when they see one, but looks can be deceiving. Learn what really makes a road a good investment for your community.***

We have known how to build good roads for a long time. Archaeologists have found ancient Egyptian roads that carried blocks to the pyramids in 4600 BCE. Later, the Romans built an extensive road system using the same principles we use today. Some of these roads are still in service.

If you follow the basic concepts of road building, you will create a road that will last. The “ten commandments” of a good road are:

1. Get water away from the road
2. Build on a firm foundation
3. Use the best materials
4. Compact all layers properly
5. Design for traffic loads and volumes
6. Design for maintenance
7. Pave only when ready
8. Build from the bottom up
9. Protect your investment
10. Keep good records

### **1. Get water away from the road.**

We can't overemphasize the importance of good drainage. Engineers estimate that at least 90 percent of a road's

problems can be related to excess water or to poor water drainage. Too much water in any layer of a road's structure can weaken that layer, leading to failure.

In the surface layer, water can cause cracks and potholes. In lower layers it undermines support, causing cracks and potholes. A common sign of water in an asphalt road surface is alligator cracking — an interconnected pattern of cracks forming small irregular shaped pieces that look like alligator skin. Edge cracking, frost heaves, and spring breakup of pavements also point to moisture problems.

To prevent these problems remember that water:

- flows downhill
- needs to flow someplace
- is a problem if it puddles.

Effective drainage systems divert, drain and dispose of water. To do this they use interceptor ditches and slopes, road crowns, and ditch and culvert systems.

Ditches should be protected from erosion by planting grass or installing rock and other erosion control measures. Erosion can damage shoulders and ditches, clog culverts, undermine roadbeds, and contaminate nearby streams and lakes.

Evaluate your ditch and culvert system twice a year to ensure that it works. In the fall, clean out leaves and branches that can block flow. In the spring, check for and remove silts from plowing and any dead plant material left from the fall.

### **2. Build on a firm foundation.**

A road is only as good as its foundation. A highway wears out from the top down but falls apart from the bottom. The road base must carry the entire

structure and the traffic that uses it. To make a firm foundation you may need to stabilize the roadbed with chemical stabilizers, large stone called breaker run, or geotextile fabric. When you run into conditions where you suspect that the native soil is unstable, work with an engineer to investigate the situation and design an appropriate solution.

### **3. Use the best materials.**

With all road materials you “pay now or pay later.” Inferior materials may require extensive maintenance throughout the road's life. They may also force you to replace the road prematurely.

Crushed aggregate is the best material for the base course. The sharp angles of the crushed material interlock when they are compacted. This supports the pavement and traffic by transmitting the load from particle to particle. By contrast, rounded particles act like ball bearings, moving under loads.

Asphalt and concrete pavement materials must be of the highest quality, designed for the conditions, obtained from established firms, and tested to ensure it meets specifications.

### **4. Compact all layers.**

In general, the more densely a material is compacted, the stronger it is. Compaction also shrinks or eliminates open spaces (voids) between particles. This means that less water can enter the structure. Water in soil can weaken the structure or lead to frost heaves. This is especially important for unsurfaced (gravel) roads. Use gravel that has a mix of sizes (well-graded aggregate) so smaller particles can fill the voids between larger ones. Good compaction of asphalt pavement lengthens its life.

### **5. Design for traffic loads and volumes.**

Design for the highest anticipated load the road will carry. A road that has been designed only for cars will not stand up

*Continued on Page 5...*

...Continued from Page 4



*These photos show the difference between an extremely thin base on very weak subgrade soil (top left) and a deep, good quality base gravel on a very sound subgrade (bottom left). The road above, in South Dakota, failed after just one year because of a very poor base. You cannot break basic rules of planning, designing and construction of roads and get long-term performance.*

to trucks. One truck with 9 tons on a single rear axle does as much damage to a road as nearly 10,000 cars.

Rural roads may carry log trucks, milk trucks, fire department pumper trucks, or construction equipment. If you don't know what specific loads the road will carry, a good rule of thumb is to design for the largest piece of highway maintenance equipment that will be used on the road.

A well-constructed and maintained asphalt road should last 20 years without major repairs or reconstruction. In designing a road, use traffic counts that project numbers and sizes of vehicles 20 years into the future. These are only projections, at best, but they will allow you to plan for traffic loadings through a road's life.

#### **6. Design for maintenance.**

Without maintenance a road will rapidly deteriorate and fail. Design your roads so they can be easily maintained. This means having:

- adequate ditches that can be cleaned regularly
- culverts that are marked for easy locating in the spring
- enough space for snow after it is plowed off the road
- proper cross slopes for safety, maintenance and to avoid snow drifts

- roadsides that are planted or treated to prevent erosion
- roadsides that can be mowed safely.

A rule of thumb for adequate road width is to make it wide enough for a snowplow to pass another vehicle without leaving the travelled way.

#### **7. Pave only when ready.**

There is nothing wrong with a well-built and well maintained gravel road if traffic loads and volume do not require a paved surface. Three hundred vehicles per day is the recommended minimum to justify paving.

Don't assume that laying down asphalt will fix a gravel road that is failing. Before you pave, make sure you have an adequate crushed stone base that drains well and is properly compacted. The recommended minimum depth of crushed stone base is 10" depending on subgrade soils. A road paved only when it is ready will far outperform one that is constructed too quickly.

#### **8. Build from the bottom up.**

This commandment may seem obvious, but it means that you shouldn't top dress or resurface a road if the problem is in an underlying layer. Before you do any road improvement, locate the cause of any surface problems. Choose an improvement tech-

nique that will address the problem. This may mean recycling or removing all road materials down to the native soil and rebuilding everything. Doing any work that doesn't solve the problem is a waste of money and effort.

#### **9. Protect your investment.**

The road system can be your jurisdiction's biggest investment. Just as a home needs painting or a new roof, a road must be maintained. Idaho's severe climate requires more road maintenance than in milder places.

Do these important maintenance activities:

*Surface* — grade, shape, seal cracks, patch, control dust, remove snow and ice

*Drainage* — clean and repair ditches and culverts; remove all excess material

*Roadside* — cut brush, trim trees and roadside plantings, control erosion

*Traffic service* — clean and repair or replace signs.

#### **10. Keep good records.**

Your maintenance will be more efficient with good records. Knowing the road's construction, life, and repair history makes it much easier to plan and budget its future repairs. Records can also help you evaluate the effectiveness of the repair methods and materials you used.

Good record keeping starts with an inventory of the system. It should include the history and surface condition of the roadway, identify and evaluate culverts and bridges, note ditch conditions, shoulders, signs, and such structures as retaining walls and guardrails.

Update your inventory each year or when you repair or change a road section. A formal pavement management system can help you use these records and plan and budget road improvements.

*Reference: Kansas LTAP Newsletter, Fall 2009  
Edited by LHTAC Staff*

## *Liability Checklist for Local Transportation and Public Work Agencies*



*If you can answer yes to the following questions, your agency is in a good position to defend itself against tort liability. If you have other concerns, add them to the list. Consider sharing this list with your council members and other elected officials.*

### **Training**

- ✓ Do all employees receive regular training for the work they perform and the materials and equipment they use?
- ✓ Do employees understand the importance of using reasonable care in performing their duties?
- ✓ Are employees instructed to report hazardous conditions and to solve them?

### **Signs and markings**

- ✓ Do we have an up-to-date copy of the Manual on Uniform Traffic Control Devices (MUTCD) and other Idaho and federal governing documents? Are these available to all employees?
- ✓ Are employees familiar with the MUTCD and other governing documents?
- ✓ Are signs and markings adequate, properly installed, and well maintained?
- ✓ Do we have an up-to-date inventory of signs, signals, and markings and a plan for maintaining conformance with the MUTCD and other governing documents?
- ✓ Do we have and follow a plan for periodic day-and-night review of signs and markings?
- ✓ Are identified road hazards posted with appropriate warning signs based on the MUTCD and other governing documents?
- ✓ Are all bridges properly posted for weight restrictions and low clearance?
- ✓ Are all dead-end roadways and railroad crossings properly signed?

- ✓ Do we provide proper temporary traffic control in work-zones?
- ✓ Are sight lines clear at intersections?

### **Roads, culverts, and bridges**

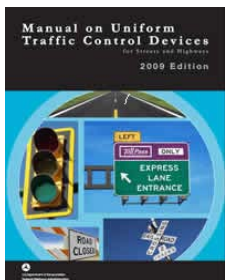
- ✓ Do we have a current inventory of road, culvert, and bridge conditions and a plan for addressing deficiencies?
- ✓ Is the right-of-way for our roads properly established and recorded?
- ✓ Do we keep good records on agency activities including roadway conditions, crashes, and maintenance work?
- ✓ Do we use current versions of accepted guidelines in road design, construction, operations, and maintenance?

### **Administration**

- ✓ Are all of our roadways inspected on a regular basis?
- ✓ Is our equipment in good repair and are employees instructed to report faulty equipment immediately?
- ✓ Do we follow objective procedures in setting priorities?
- ✓ Are our maintenance standards achievable with the resources available?
- ✓ Do we have an established procedure for receiving complaints, acting on them, and recording all actions?
- ✓ Do we meet periodically with our legal counsel to review the status of roadway-related claims filed against the agency?

*Reference: University of New Hampshire T2 Center, Road Business, Summer 2009, Vol. 24, No. 2 Edited by LHTAC Staff*

## *2009 Edition of the MUTCD*



The 2009 Edition of the Manual on Uniform Traffic Control Devices (MUTCD) dated December 2009, is available in both [PDF](#) and [HTML](#) [http://mutcd.fhwa.dot.gov/hm/2009/html\\_index.htm](http://mutcd.fhwa.dot.gov/hm/2009/html_index.htm)

A hard copy of this new edition can be ordered <http://www.atssa.com/galleries/default-file/Web-MUTCD-Order-form1-19-10.pdf>

The Idaho T2 Center will be offering classes, starting in May, that will include information about the changes within both the 2003 and 2009 MUTCD Editions. To register, please visit the Idaho T2 Center's website [www.idahot2.org](http://www.idahot2.org), or contact Lorie Cover, Training Coordinator at 1-800-259-6841, email [lcover@lhtac.org](mailto:lcover@lhtac.org).

# Help for Local Governments in Complying with New Federal Requirements for Signs

Adequately maintained traffic signs and pavement markings help improve highway safety, especially during the nighttime. The retroreflective properties of traffic signs bounce light from vehicle headlights back toward the vehicle and the driver’s eyes, making the signs appear brighter and easier to see and read at night.

Because the retroreflective properties of traffic control devices deteriorate over time, agencies need to manage the maintenance of their signs and pavement markings. Recent retroreflectivity standards are set forth in the *Manual on Uniform Traffic Control Devices (MUTCD)* and compliance dates are coming up soon. Did you know that by January of 2012, all agencies must implement a sign maintenance program that addresses the nighttime visibility of their signs?

*These resources are especially useful for agencies that do not have traffic engineering staff.*

The Idaho Technology Transfer Center (T2) has a new resource to assist small and medium sized agencies without traffic engineering staff to meet the new federal requirements for maintaining traffic sign retroreflectivity.

The *Sign Retroreflectivity Toolkit*, produced by the Federal Highway Administration (FHWA), contains a hard copy guidebook (shown at right) and a stand-alone computer-based package on a CD that contains a great deal of information, resources, and automated features.



These tools offer a simple step-by-step approach to retroreflectivity compliance, suggested options for inspection procedures, and a budget estimating tool. These items are designed to assist agencies in making informed decisions before implementing a retroreflectivity maintenance program while considering resource limitations.

*This helpful guidebook (with companion CD) is available from the Idaho T2 Center. And it's FREE.*

*Reference: Kansas LTAP Newsletter, Fall 2009  
Edited by LHTAC Staff*

## Can We Keep Our Historic Street Signs?

By Lisa Harris



*Street signs like this one in Austin, TX will need to be replaced, illuminated, or combined with compliant signs.*

these signs can be retained without having issues of non-compliance. FHWA said that these signs are not in compli-

The short answer is probably no, unless you illuminate them. The FHWA issued guidance on this question in a response letter to the community of Brookline, Massachusetts. Brookline has historic street signs with cast aluminum raised letters. They asked whether

ance with the MUTCD because all signs are required to be either retroreflective or illuminated and the signs in the Town of Brookline do not meet either of these requirements. Historic street name signs must be either a retroreflective material or illuminated in such a manner that the shape and color are visible to the road user both day and night. Table 2A-1 and Table 2A-2 in the MUTCD provide various methods for providing sign illumination and retroreflection.

Can paint or other treatment be applied to existing historic sign panels to achieve retroreflectivity? No. However, the historic sign panels may be displayed below new street name signs.

*Reference: KUTC Newsletter, Winter 2009*

# How Accessible are Your Sidewalks



What is the maximum cross slope of the walkway of a pedestrian access route, 2%, 3% or 5%? According to the **Americans with Disabilities Act Accessibility Guidelines (ADAAG)** a 2% is maximum cross slope.

The American with Disabilities Act (ADA) outline a number of require-

ments for public access and as a part of ADA the standard for sidewalk has been confusing and missed used. To assist the transportation agencies, contractors and consultant that work with those agencies the Idaho T2 Center and Federal Highway Administration (FHWA) have partnered to develop a document to aid in understanding some of these requirements concerning sidewalks and public access.

This partnership lead to the development of a "Field Guide for Accessible Public Rights of Way", as well as a training program that teaches the principles contained within the guide.

Currently these courses are being taught in conjunction with the Safety Fest in Pocatello (April 20 to 23, 2010) with addi-

tional courses being planed this spring. The instructors for this program are Jason Giard, P.E. Operations Engineer, Design and Michael Caliendo, Program Analyst/ Civil Rights Specialist, both from the Idaho Division of FHWA. The Field Guide was originally developed by the Nevada Department of Transportation, which provided most of the text and artwork and we would like to thank the NVDOT for

providing us with this valuable tool.

The topics that are discussed in this guide and course are:

- Issues identification checklist
- Sidewalks on Public right of way
- Perpendicular curb ramps
- Parallel curb ramps
- Blended Transitions
- Curb ramp transitions
- Driveways
- Pushbutton
- Protrusions
- Obstructions
- Crosswalk
- Transit facilities
- Handrail

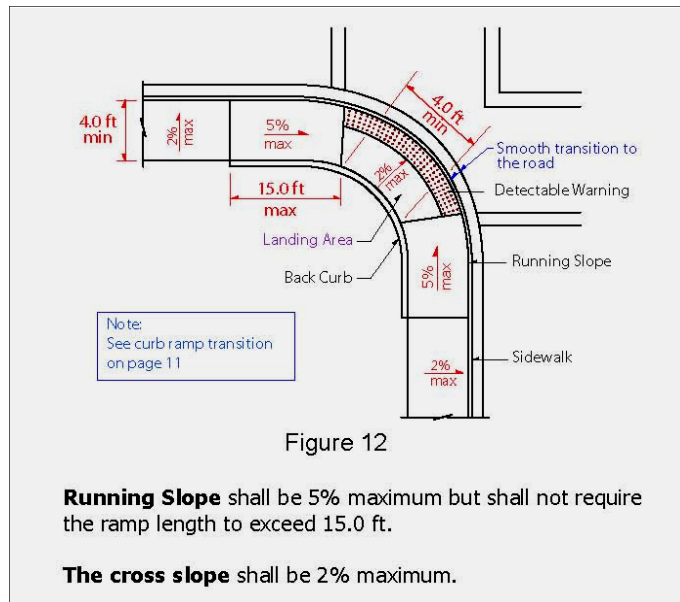


Figure 12

**Running Slope** shall be 5% maximum but shall not require the ramp length to exceed 15.0 ft.

**The cross slope** shall be 2% maximum.

If you or your organization has a need for this course, please contact Bruce Drewes, T2 Center Manager or Lorie Cover, T2 Center Training Coordinator at 1-800-259-6841.

# Simple Asset Tracking with GPS



The latest GPS tracking solution is designed to monitor the location of non-motorized and non-highway equipment and assets, including heavy equipment, trailers, generators, etc. Asset tracking is similar in nature to the more advanced GPS Tracking solutions used for fleet management, but Asset Trackers are battery operated which enables them to be used on non-motorized equipment, and off-highway equipment, i.e. loaders, generators, trailers, etc. Batteries generally last 7 years and the GPS units are virtually maintenance free.

Using web-based software and plug-n-play technology, Asset Trackers allow you to:

- Easily locate the exact location of your equipment
- Monitor and inventory equipment as it enters or exits the work yard

- Receive real-time notification if equipment travels outside user-defined boundaries (GeoFences), which aides in theft recovery and deters unauthorized use
- Receive real-time notification if sensor alerts are triggered, for example: an open door on secure cabinets or low batteries on road signs
- Use in remote areas where cellular service is unavailable

To learn more about Asset Tracking and other GPS Fleet Solutions or to schedule a free demonstration, please contact:

Lori Vawdrey  
 L2 Data Collection  
 Phone (208) 860-7554  
 Email: [Lvawdrey@L2DataCollection.com](mailto:Lvawdrey@L2DataCollection.com)  
[www.L2DataCollection.com](http://www.L2DataCollection.com)



Reference: Bruce Drewes, Manager, Idaho T2 Center

# Improve Your Grant Application Scores!

Also, a new high-tech way to manage pavement and signs better without increasing costs.

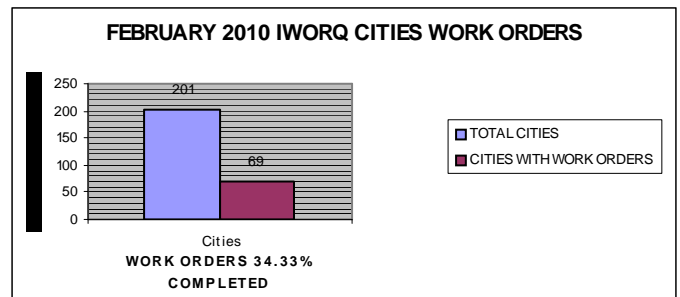
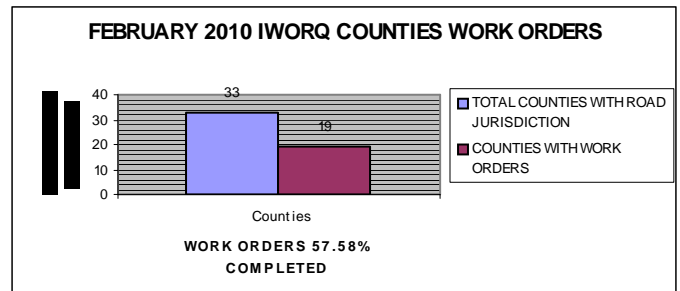
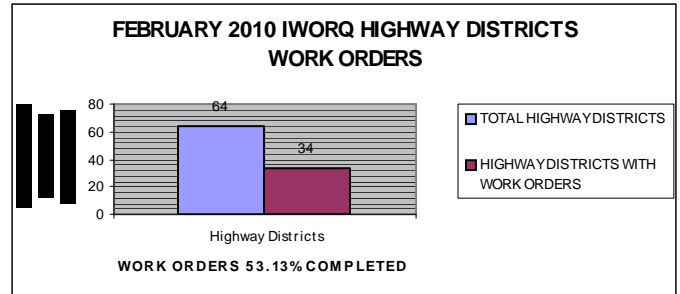
LHTAC and IWORQ signed an agreement last April to provide Pavement Management and Sign Management capabilities to all Cities with up to 6,000 in population and all Counties, Highway Districts and Indian Reservations in the State of Idaho for no charge to the jurisdiction.

Data that has been collected in past years by LHTAC, engineering firms for transportation plans and those jurisdictions with shape files and databases on their roads and signs may migrate into IWORQ. It has log-in and password features and can be used from any computer with internet connection in your organization. If you already have data and are interested, LHTAC can help you take advantage of the programs to manage your pavements and signs with no fees.

If your jurisdiction currently does not have a transportation plan or data collected, you may be eligible for a grant to collect road centerline data and sign data. To apply for this grant, the *2010 Pavement and Sign Management/Data Collection* application is now available online at [www.lhtac.org](http://www.lhtac.org).

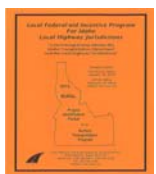
Data that is available to LHTAC for Idaho local road jurisdictions has been password protected and work orders assigned to make these services available to you. On the right are three graphics that show the total number of jurisdictions (Cities, Counties, Highway Districts) in Idaho and the number of work orders that have been issued as of February 2010.

For more information, please contact Jim Zier, LHTAC Asset Manager at 1-800-259-6841 or [jzier@lhtac.org](mailto:jzier@lhtac.org).



## 2010 Local Federal-aid Incentive Applications & 2011 LRHIP Applications—Project Selection Process

The 2010 Federal-aid Incentive Program and 2011 Local Rural Highway Investment Program (LRHIP) application ratings were discussed during the LHTAC March 12, 2010 quarterly meeting of the Council. Below lists the two programs' application processes:



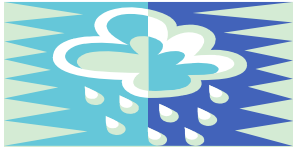
**Federal-aid Incentive Program—Project Selection:** Eligible projects are identified, prioritized, and requested by Local Highway Jurisdictions through a formal project application process (November–February). Project proposals are reviewed and ranked by LHTAC and a prioritized list of projects (based on available funding) is then presented to the Idaho Transportation Board, for inclusion in the draft State-wide Transportation Improvement Program (STIP) in June.



**Local Rural Highway Investment Program (LRHIP)—Project Selection:** Each September LHTAC makes the application available to all cities under 5,000 in population, all counties with road and bridge departments, and all highway districts. Once the applications are returned by the December deadline, LHTAC rates the applications and the highest rated applications will be funded up to the amount of funds available in any given year.

Both program application results will be made available on LHTAC's web site [www.lhtac.org](http://www.lhtac.org) after the March Council meeting each year.

### Spring Driving Tips



With spring comes rain and warmer weather, two reasons you should be more attentive.

#### Rain

- ◆ Watch out for pedestrians. Umbrellas and hoods might keep them from seeing you.
- ◆ Drive cautiously. The first drops of rain cause roads to be slick.
- ◆ Avoid driving through big puddles. Brakes can be affected by the large amount of water and cause you to skid. Or, the splash may block the vision of other drivers, causing them to brake or swerve.
- ◆ Allow extra following distance between you and the car in front of you. A car needs two to ten times more distance to stop on a wet road than a dry one.

Reference: [www.seasonaldrivingtips.com](http://www.seasonaldrivingtips.com)  
 Edited by LHTAC Staff



In an effort to help save the environment by reducing paperwork and cost, we are offering to provide this publication by E-mail. If you would prefer an E-mailed copy of this publication instead of a printed copy, please send your request to: [cstewart@lhtac.org](mailto:cstewart@lhtac.org)

*Thank you!*

## T2 2010 Road Scholar Recipients

C  
o  
n  
g  
r  
a  
t  
u  
l  
a  
t  
i  
o  
n  
s  
!

### Tom Christensen, District Foreman East Side Highway District

Tom is originally from Idaho. Tom has a long history of experience in the field with millwork, as a heavy equipment operator, and county road maintenance. His personal interests and hobbies include farming, hunting, fishing, camping and anything outdoors.



### Loren Horning, Foreman East Side Highway District

Loren is from Deary, Idaho and has been with East Side Highway District since 1997. Loren has an Associate of Science degree in radio broadcasting. His work experience includes working for the Idaho Department of Lands as a Fire Fighter for 3 seasons and he worked at the L.P. Chilco Mill for 6 years. Loren is a member of the Highway Watch Program. In his spare time, he tries to spend as much time as possible at his cabin in Cedar Creek on Pend O'Reille Lake. He has been married to his wife Kate for 10 years and he has a daughter, Kelly and twin boys Lars and Alex. Loren also enjoys working in the shop on all kinds of projects, and enjoys gun work and shooting.



## National Work Zone Awareness Week 2010

The 2010 National Work Zone Awareness Week is scheduled for April 18-24. The national kickoff event will be held in New York City.

The National Work Zone Awareness Week Executive Committee has announced future (tentative) dates for National Work Zone Awareness Week events under a newly developed five-year plan. The dates from 2010 - 2014 are:

- 2010: April 19 - 23
- 2011: April 4 - 8
- 2012: April 23 - 27
- 2013: April 15 - 19
- 2014: March 31 - April 4

Reference: American Traffic Safety Services Association





## Idaho T2 Spring Classes 2010

See our website for more details: [www.idahot2.org](http://www.idahot2.org)

Date	Workshop	Instructor	Workshop Location	Road Scholar/Road Master or Elective
April 5, 2010 <i>*Date changed from Mar30</i>	Idaho Paving Materials	John Duval	Boise	Road Master
April 5, 2010	Gravel Roads Maintenance & Design	Steve Monlux	Coeur d'Alene	Elective
April 6, 2010	Roadway Materials	Steve Monlux	Lewiston	Road Scholar
April 6 through April 8	Motor Grader	Jim Matosich	Moved to Madison County	Elective
April 6, 2010 <i>*Date changed from Mar31</i>	Pavement Maintenance II	John Duval	Twin Falls	Road Master
April 7, 2010 <i>*Date changed from Apr 1</i>	Pavement Maintenance II	Bruce Drewes	Pocatello	Road Master
April 8, 2010 <i>*Date changed from Apr 2</i>	Idaho Paving Materials	John Duval	Pocatello	Road Master
April 19, 2010	Pavement Maintenance II	John Duval	Coeur d'Alene	Road Master
April 20, 2010	Idaho Paving Materials	John Duval	Coeur d'Alene	Road Master
April 21, 2010	Pavement Maintenance II	John Duval	Lewiston	Road Master
April 22, 2010	Idaho Paving Materials	John Duval	Lewiston	Road Master
April 27, 2010	Basic Math	CWI	Nampa	Road Scholar

Check our training calendar for new classes. We will be offering ADA Compliance Training and MUTCD classes in May and June.

Registration Fees	How To Register
<p><b>Agency</b> Local: \$45 State or Federal: \$80 Out-of-State &amp; Private: \$105</p> <p><b>Heavy Equipment Courses</b> Local government : \$300 Outside organizations \$450</p>	<p>Go to the Idaho T2 Center website: <a href="http://www.idahot2.org">www.idahot2.org</a> and login into the site with your user name and password. If you do not have a user name and password, on the left side of the webpage, click on the link "request logon". Once logged in you can register by viewing available classes on the training calendar or go to "Your Info" on the left navigation bar.</p>

Class Information	
<ul style="list-style-type: none"> <li>Class information is posted online: <a href="http://www.idahot2.org">www.idahot2.org</a></li> <li>All classes start at 8:30 AM unless noted otherwise. Attendees will have a one-hour lunch break; lunch will not be provided.</li> <li>Register two or more weeks in advance to receive a \$5 discount per person (<i>early registration discount does not apply to heavy equipment courses.</i>)</li> </ul>	<ul style="list-style-type: none"> <li>Registration Cut Off: Is 10 business days prior to the class</li> <li>Cancellation Policy: If you must cancel, please call us at 208-344-0565 or at 800-259-6841. There will be no refunds unless a cancellation is received at least two (2) business days before the class.</li> </ul>

Please contact the Idaho T2 Center if you have any questions on how to register for a class or for transcripts of classes you have taken. Contact us at [IdahoT2@lhtac.org](mailto:IdahoT2@lhtac.org) or call 208-344-0565 or 800-259-6841.

Local Highway Technical Assistance Council  
Idaho Technology Transfer Center  
3330 W. Grace St.  
Boise, Idaho 83703

Prsrt Std  
U.S. Postage  
PAID  
Boise, ID  
Permit No. 767

VOLUME 3, No. 3

IDAHO TECHNOLOGY ASSISTANCE NEWSLETTER

MARCH 2010

## CALENDAR OF EVENTS

April 13-14, 2010	The Ultimate Supervisor's Workshop ( <a href="http://www.NationalSeminarsTraining.com">www.NationalSeminarsTraining.com</a> 1-800-258-7246)	Boise, ID
April 14, 2010	Managing Multiple Priorities, Projects, and Deadlines ( <a href="http://www.pryor.com">www.pryor.com</a> 1-800-556-3012)	Boise, ID
May 17, 18, 2010	Creative Leadership for Managers, Supervisors, & Team Leaders ( <a href="http://www.pryor.com">www.pryor.com</a> 1-800-556-3012)	Pocatello, Boise, ID
June 10, 2010	Idaho Technology Transfer (T2) Center Semi-Annual Board Meeting	Boise, ID
June 11, 2010	Local Highway Technical Assistance Council Meeting	Boise, ID
June 16-18, 2010	Association of Idaho Cities 63rd Annual Conference	Idaho Falls, ID
July 16-20, 2010	National Association of Counties Annual Conference & Exposition	Reno, NV
September 19-24, 2010	Idaho Association of Counties Annual Conference 2010	Garden City, ID
November 9-12, 2010	Idaho Association of Highway Districts 62nd Annual Conference	Coeur d'Alene, ID

*If you are interested in additional information regarding any of the above referenced meetings and/or training sessions, please contact Cindy Stewart at 1-800-259-6841 or [cstewart@lhtac.org](mailto:cstewart@lhtac.org).*