Correct, Protect, and Warn

Reducing the Toll of Roadway Departure Crashes

Roadway departure crashes on Louisiana’s roads result in nearly 4,500 serious injuries and 500 deaths per year. These statistics and Louisiana’s higher than average overall crash rate have resulted in Louisiana being designated by the Federal Highway Administration (FHWA) as a “focus state” for roadway departure. Nationally and statewide, many of the most severe roadway departure crashes occur on rural, two-lane roads with narrow or no shoulders and are often associated with curves. In addition, many of these crashes include evidence of speeding and alcohol. The combination of these factors make roadway departure crashes some of the more deadly events on our roads. The Local Road Safety Program (LRSP) has conducted data analysis and site visits to better quantify and characterize the roadway departure problem on Louisiana’s local roads. As a result of this work, a new workshop to help identify potential crash locations and implement low cost solutions was developed.

While roadway departure crashes on rural and local roads may appear to be random, Louisiana’s data indicate that there are common characteristics of many of these crashes. The data show that a relatively high number of these crashes are associated with horizontal curves. Many result in impact with trees or culverts. Louisiana’s many open ditches and waterways are also common factors. And, the data indicate that alcohol is involved in many of the fatal and serious injury roadway departure crashes on local roads. Considering these factors, it is possible to predict where some of these crashes are more likely to occur. Using this information, the new roadway departure workshop was designed to help local road managers concentrate their resources on locations with either a proven record of crashes or those with a high potential for roadway departure crashes.

The new roadway departure workshop was conducted at four locations around the state. The locations were based on the number of roadway departure crashes occurring on local roads in the general geographic area. Special invitations were sent out to

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The ball-bank indicator test was conducted on River Rd. in Baton Rouge.
By Gary Pentek, Program Manager  
LADOTD Off-System Bridge Program

Operational changes and high construction costs will impact LADOTD’s Off-System Bridge Program. According to a March 23, 2009 LADOTD Operations Section Directive, all construction, engineering, and inspection (CE&I) services for parish bridge construction will now be outsourced to consultants. This is in contrast to the current process where these services are conducted by LADOTD forces. Outsourced construction, engineering, and inspection services will account for approximately 25 percent of a project’s total cost. With no additional funding available for the Off-System Bridge Program, the increased costs will result in fewer off-system bridges being let and fewer new structures being programmed in future years.

LADOTD is programming new structures in the program for 2009-2011. Due to the high cost of construction over the past few years along with the addition of CE&I contracted services, very few new structures are expected to be added to the inventory. The Off-System Bridge Program advises that it may be in the best financial interest of the parishes to cancel any programmed projects that have right-of-ways and servitudes that cannot be easily obtained. Projects that have hard to resolve issues may present a financial liability to the parishes during the programming period of 2009-2011.

All local agencies are reminded that utilities must be relocated prior to the start of construction. LADOTD has encountered difficulties with utility relocations or removals in the past year in several parishes. Local agencies are also reminded to obtain environmental clearances through LADOTD before beginning the acquisition process for right-of-ways or servitudes to avoid unnecessary expense if the environmental clearances cannot be issued.

There is good news for the program. As of June 24, 2009, LADOTD will have let 49 structures for an approximate cost of $36 million during the current program year. This is the largest dollar amount for letting that has ever been issued and is the result of the ARRA funds, state surplus funds, and federal redistribution of funding in addition to regular program funding.

Please contact Gary Pentek at 225-379-1047 for further information or with any questions.

!! New Class !!
Culvert Repair and Rehabilitation

This October, LTAP will be hosting a new culvert inspection class. This two-day workshop will be taught by Dwight Reagan, P.E., from Reagan Engineering Associates. This workshop is designed to be suitable for maintenance personnel, technicians, engineers, and all involved in drainage management. Reagan is an experienced instructor and has taught this class for LTAPs across the country. The course includes a strong emphasis on the need, format, and operation of an organized culvert system. Culvert defects, deficiencies, and distresses as well as the associated causes and ramifications will be discussed.

For course dates, registration and course brochure, please visit the LTAP Web site at www.ltrc.lsu.edu/ltap.
The Good, Bad, and Ugly in Ladder Safety

Ladders may seem like the most basic, easy-to-use piece of equipment, but about 50 construction workers a year are killed in falls from ladders.

The main cause of falls from straight or extension ladders is the movement of the base, usually because it was improperly set up or inadequately secured. On stepladders, the main cause is tipping sideways.

Ladder Safety

Below are some basic rules of ladder safety that are contained in the Laborers’ Health and Safety Fund of North America’s (LHSFNA) health alert available through the online catalogue at pubs.lhsfna.org.

Ask Yourself:
• Is the ladder the best tool for the job? In many cases, a scissors or aerial lift is a safer option.
• Employees using ladders must be trained by a competent person. Choose the right ladder for the job. Inspect ladders before use.
• Do not paint wooden ladders.
• Keep ladders at least ten feet away from power lines.
• If used where foot traffic is likely, block off the area.
• Always face the ladder.
• Wear slip-resistant shoes.
• Always maintain three-point contact (e.g., one hand and two feet or two hands and one foot).
• Do not work from the top or top step of a stepladder or from any of the top three rungs of straight or extension ladder.

• Stand in the center to avoid tipping.
• Do not carry objects when moving up or down.
• Never move a ladder with someone on it.
• Lower an extension ladder before moving it.
• Never leave unsecured ladders unattended.
• Always secure a ladder by tying it down or having someone hold it.
• Always set ladders on firm, level ground; use levelers on uneven ground.
• Keep areas around ladders clear.
• Do not tie ladders together unless made for that purpose.
• If possible, use a personal fall protection system attached to a secure point when working from a ladder.

Through participation in the Occupational Safety and Health Administration (OSHA) Alliance Program Construction Roundtable’s Fall Protection Workgroup, the LHSFNA helped develop a six-part series of ladder safety toolbox talks that is available online. Fall protection information is also online.

Another useful resource is Don’t Fall for It, an 11-minute training DVD produced by the Center to Protect Workers’ Right (CPWR) with help from the New Jersey Laborers. For more information, contact the CPWR at 301-578-8500 or visit the Web site at www.cpwr.com. The cost is $7.00 on DVD or VHS.

This article was reprinted with permission from the Summer 2009 Transportation Tracks newsletter from North Carolina LTAP.
LPESA Spring Conference

The Louisiana Parish Engineers and Supervisors Association (LPESA) hosted its annual spring conference in north Louisiana on May 7 and 8, 2009. Over 70 participants attended the meeting at the Ouachita Parish Fire Training Center in West Monroe. LPESA member John Tom Murray of Ouachita Parish coordinated the details of the conference facility as well as meals and refreshments throughout the event. The weather was beautiful for the evening social and crawfish boil, which was held at the Ouachita Parish’s Cheniere Lake Pavillion and sponsored by associate members Ergon, Diamond B, Dreher Construction, and Davison Petroleum. A special thanks to John Tom Murray’s assistant Melinda Kiper who helped with the arrangements and was on-site for the entire event. She made sure that everything ran smoothly and took care of anything that came up. LPESA appreciates the efforts of the Ouachita Parish staff to help make the conference such a success!

Upcoming LPESA Fall Conference

The LPESA Fall Conference will be held in Baton Rouge on September 10 and 11, 2009 at the TTEC facility. Participants will hear more about LPESA’s bid to host the 2013 National NACE annual conference in Baton Rouge. The annual NACE meeting provides outstanding professional development opportunities for county (or parish) engineers and public works related professionals. The national meeting also includes a number of opportunities for networking as well as an equipment and vendor show. The Baton Rouge Convention and Visitors Bureau is assisting LPESA in its proposal and bid efforts and will make a presentation during the September meeting in Baton Rouge.

Technical presentations at the LPESA Fall conference will include an update on public bid law, new LADOTD Engineering Directives and Standards Manual (EDSM) policies, rail crossing program updates, off-system bridge updates, alternative fuels for fleets, legislative updates, and more.

For additional information and registration, please visit the LPESA Web site at www.lpesa.org.

Smart Growth Summit

The 2009 Smart Growth Summit will be held at the Shaw Center for the Arts in Baton Rouge on August 26 through August 28, 2009. The conference will focus on sustainable communities, coastal development solutions, and innovative land use. A Kids Planning Day will be held after the conference on Saturday, August 29, 2009 at the Louisiana Arts and Science Museum.

To register, visit www.planningexcellence.org. The conference costs $25 to attend. Admission is free for students.
representatives of parishes that the crash data indicated are experiencing higher numbers of crashes as compared to other parishes. These courses provided an overview of low-cost treatments to minimize the occurrence and severity of roadway departures. The classes focused on horizontal curves and other roadside hazards that are most common to the crashes reported on the local road system in Louisiana.

The workshop began with a discussion of the first objective which is to keep vehicles on the road and within the proper lane. The easy-to-remember principle of “Correct, Protect and Warn” as related to the situations most common to Louisiana’s rural roads was presented. The opportunities to correct a problem by removing roadside hazards such as trees, utility poles, mailboxes, and other obstacles as well as roadway improvements were addressed. Protecting hazards through shielding with guardrails and other treatments was included. Much of the workshop was devoted to reviewing the treatments to warn motorists of the upcoming road condition or situation. Low cost improvements included basic and enhanced signing and marking treatments proven to reduce crashes. While not necessarily low cost to many smaller agencies, installation of rumble strips, use of the safety wedge, and minimization of roadside drop-offs that may be implemented during road rehabilitation or construction were included as viable and proven countermeasures.

Use of a ball-bank indicator to investigate curves and to set advisory curve speeds was demonstrated. Many agencies had little documentation as to how advisory speeds had been set in the past. A field exercise that included using the ball bank indicator and selection of appropriate treatment packages was conducted. Every agency in attendance received a free Rieker analog ball-bank indicator.

Need Assistance Finding High Crash Locations?

LTAP and Local Road Safety Program staff can provide crash data on the local roads in your parish or municipality in an easy-to-use format. Call 225-767-9717 to request a report. LRSP has already identified 77 potential sites from the statewide data that experienced more crashes than other local road locations. To date, roughly half of these locations have been visited by an LRSP engineer and recommendations for low cost treatments developed. We are in the process of contacting local agencies regarding these locations and steps that can be taken to mitigate safety issues.

Need Funding to Make Low Cost Improvements on Local Roads?

LRSP continues to administer a funding program to implement low cost safety improvements on the local roads to reduce crashes and the resulting serious injuries and fatalities. An easy-to-complete site nomination form for roadway departure locations (and intersections) is available. Visit LTAP’s Web site to access the form. Complete the form and return it to LTAP, and a road safety engineer will be in touch to schedule a visit. Eligible locations will be prioritized for funding and included in the 2009 program. As a side note, the funding process that must be followed in the LRSP is a somewhat lengthy process due to state and federal requirements and the source of the funds. LTAP is proposing a new process for small projects that do not require extensive engineering or construction. Pilot projects are being conducted to determine the feasibility of the streamlined process. Stay tuned for updates on the LRSP application and funding process.

For more information on roadside departure crashes and mitigation alternatives, check out FHWA’s Roadway Departure Safety Web site at
safety.fhwa.dot.gov/roadway_dept
Selling the Public Works Budget to the Public

In these difficult economic times, it is even more critical that you can successfully sell your public works budget to the elected officials of your local agency and to the public.

Here are a few tips from Hank Lambert, former director of the Vermont Local Roads Program, who developed a training program entitled Budgeting for Public Works Professionals.

Develop a Concise Summary of the Budget

A concise summary and guide for informing the Board and involving the public is valuable. There is no set format. It may include a transmittal letter, a budget message, an executive summary, or a budget-in-brief. At a minimum, a summary should do the following:

1. Summarize the major changes in priorities or service levels from the current year and the factors leading to these changes.

2. Articulate the priorities and key issues for the new budget period.

3. Identify and summarize major financial factors and trends affecting the budget, such as economic factors, long-range outlook, significant changes in revenue collections, tax rates, or other changes, current and future debt obligations, and significant use of or increase in fund balance or retained earnings.

4. Provide financial summary data on revenues, other resources, and expenditures for at least a three-year period, including prior year actual, current year budget, and/or estimated current year actual and proposed budget.

Tips for Presenting the Budget to the Board and to the Public

Ask First: “Have I fully involved my staff in developing the department’s budget?”

1. Tailor the presentation to the situation, and what you want the Board (and the public) to decide. Begin with an overview of the presentation.

2. Revenues – explain key assumptions in developing revenue projections and show anticipated revenues by source.

3. Expenditures – explain key assumptions (inflation rates, staff turnover, anticipated increases), show expenditures by program, and project changes in salaries and fringe benefits.

4. Programs – briefly explain new requirements, give status reports on programs, and explain proposed new program initiatives and justification.

5. Focus on what interests members of the audience (support existing programs, new programs, effect on property taxes, and staffing).

6. Discuss implications of the budget (facilities, taxes, debt); show benefits if passed; explain the consequences if the budget is cut.

This article was reprinted with permission from the Spring 2009 newsletter of the Connecticut Technology Transfer Center.
NACE Local Roads Matter Campaign

According to a press release on June 17, 2009, the National Association of County Engineers (NACE) launched its “Local Roads Matter” campaign to highlight the importance of local roads to our nation’s transportation system. Over 75 percent of the roads and bridges in the United States are under local jurisdiction, but according to NACE, many national and state transportation funding policies are restrictive and result in a shortage of resources necessary to maintain a state of good repair and meet growing mobility needs. The NACE campaign is designed to provide information and resources to influence decision makers during the activities leading up to the authorization of the new surface transportation act that is currently being drafted. NACE President Chris Bauserman, county engineer, Delaware County Ohio added that “Across the nation, it is difficult for those responsible for the local road system to have a voice at the state level to ensure money is targeted for investment at the local level is actually spent at the local level.”

NACE advocates that a new and more enlightened federal, state, and local partnership is needed to restore the balance to highway investments and achieve important economic, environmental, and safety goals. The site has information on local infrastructure issues as well as examples of how states across the country are working to address a wide range of issues on the local road system including the disproportionate number of fatalities that occur on local and rural roads.

Valerie Brown, president-elect of the National Association of Counties and member of the Sonoma County, California Board of Supervisors adds, “The NACE Local Roads Matter Campaign supports our efforts at NACo to ‘Restore the Partnership’ between the Federal government and America’s counties. County roads are the backbone of rural America and as such a renewed national focus is required to protect the users and preserve these vital public assets.”

To visit the NACE Local Roads Matter Campaign Web site, go to countyengineers.org/LRM/index.html.

Upcoming Events from LTAP

**RS #8 – Elements of Supervisory Practices for Local Agencies**
- August 10 and 11 – Lafayette, LA
- August 31 and Sept. 1 – Mandeville, LA
- September 14 and 15 – Bossier City, LA
- September 16 and 17 – Monroe, LA

**Culvert Inspection and Operation, Repair and Rehabilitation Class**
- October 5 and 6 – Ruston, LA
- October 7 and 8 – Alexandria, LA
- October 26 and 27 – Hammond, LA
- October 28 and 29 – Jennings, LA

**LPESA Fall Conference**
- September 3-4 – Baton Rouge, LA

**APWA International Congress and Exposition**
- September 13–16 – Columbus, OH

**8th TRB National Conference on Asset Management**
- October 19–22 – Portland, OR
**Publication Statement**

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The Louisiana Local Technical Assistance Program was established at the Louisiana Transportation Research Center on the LSU campus in 1986. The purpose of the center is to provide technical materials, information, and training to help local government agencies in Louisiana maintain and improve their roads and bridges in a cost-effective manner. To accomplish this purpose, we publish a quarterly newsletter; conduct seminars, workshops, and mini-workshops covering various aspects of road and transportation issues; provide a lending library service of audio/visual programs; provide technical assistance through phone and mail-in requests relating to transportation technology; and undertake special projects of interest to municipalities in Louisiana. LTAP also coordinates the Louisiana Local Road Safety Program.

**Need Technical Help? Contact LTAP**

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