

CROSSROADS



WISCONSIN TRANSPORTATION INFORMATION CENTER – LTAP at the University of Wisconsin–Madison

Town road projects emphasize safer, stronger roads

Offsetting costs to upgrade these roads in support of commerce and safe travel was the legislative goal of awarding improvement dollars to towns in 2012-2013 under the Town Road Discretionary Improvement Program.

ECONOMIC DEVELOPMENT that spurs welcome growth in towns across Wisconsin also has an impact on roads, which experience increased traffic volume and heavy loads that exceed what they were built to carry. Offsetting costs to upgrade these roads in support of commerce and safe travel was the legislative goal of awarding an additional \$10 million in improvement dollars to towns in 2012-13 under the Town Road Discretionary Improvement Program (TRID). TRID is one of three discretionary programs under the state-funded Local Roads Improvement Program (LRIP) administered by the Wisconsin Department of Transportation.

Making town roads safer and stronger were the top criteria for selecting road improvement projects for these additional TRID funds, says WisDOT's Janice Watzke, statewide LRIP manager. The department looked for projects that improved safety, reconstructed a road to carry heavier loads or higher traffic volume, and improvements done jointly with a neighboring local government. Favored projects were those that met one or more of these criteria.

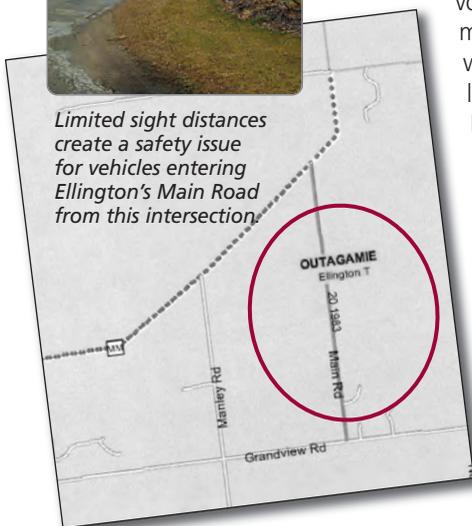
The Wisconsin Towns Association and WisDOT, along with a committee of town officers and groups representing the state's farming, dairy and timber



Main Road in the Town of Ellington carries up to 2,100 vehicles a day on narrow pavements with no shoulders and vertical curves that affect sight distances. It is getting a much-needed upgrade this year thanks to TRID funding.



Limited sight distances create a safety issue for vehicles entering Ellington's Main Road from this intersection.



industries, reviewed applications and made funding recommendations to the Secretary. Fifty-eight town road projects in 47 Wisconsin counties are on the calendar this biennium thanks to the reimbursement program. TRID pays up to 50 percent of total TRID-eligible costs and local governments pay the rest.

Range of issues

A central requirement of TRID is certification by a registered engineer that project design and construction meets the *Trans 204 Existing Town Road Improvement Standards*, Watzke notes. Towns must construct the road to perform effectively under current and anticipated truck loads and traffic volume. Projects funded

under TRID need to certify they are designed to last a minimum of 10 years. TRID also requires towns to bid the projects and have contractors do the work.

Choosing projects from the TRID list to show the range of issues Wisconsin towns are addressing with the available funds, Watzke identified two she says stand out as promoting safe travel and supporting commerce on local roads. In one case, the Town of Ellington plans to improve a substandard roadway where a growing volume of traffic compromises the safety of all travelers. The other example, proposed by the Town of Curran, calls for improvements on a road that is moving loads far beyond its capacity to carry them safely.

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Ethics in its place

MANY PROFESSIONS USE A code of ethics that establishes a standard or set of principles members of those professions must follow. Some professions require ethics training for license renewal. Recently, the State of Wisconsin made such training a continuing education requirement for renewing the Professional Engineer (PE) license.

Director with the University of Wisconsin Department of Engineering Professional Development (EPD). Philip Freeburg, J.D., is a Law Educator with the Local Government Center (LGC) at the University of Wisconsin-Extension. Both men address ethics issues in the courses they teach for local government and public works professionals.

says. "They have a special responsibility to use their knowledge for the benefit of the public."

Freeburg's experience in the public sector includes nine years as a municipal judge and four years as an attorney for local governments in Wisconsin. At LGC, a resource for UW System programs that support local governments, he conducts workshops that explore the powers and duties of local government bodies and officials, land use regulation, open meetings and records, and local government law. Where these activities have the potential for conflict of interest or improper actions, Freeburg goes into detail about state statutes that prohibit unethical behavior and discusses the penalties that result.

He explains that the rules apply to public officials who are elected, appointed or serving at the pleasure of the local authority. Many local governments adopt the state code of ethics (Wis. Statute, Sec. 19.59) or modify it to meet local needs.

"I ask people to think of ethics as leadership principles tied to personal integrity and being responsible. The goal is to earn respect as an effective, reliable local official or employee."



"Professionals who work in the public sector have a special responsibility to use their knowledge for the benefit of the public."

Registered PEs are not the only ones concerned with ethics issues. Everyone working in local street and highway departments across Wisconsin should be prepared for situations that present an ethical dilemma and understand the distinction between a legal question and a question of ethics.

Is accepting lunch from a contractor acceptable? Can you, as a local public official, recommend the town board or city council award a road project to a friend?

Two educators who know the practical side of applying ethical standards to questions like these regularly put the topic into perspective for local governments. Howard Rosen, Ph.D., is Program

Responsible and legal

Rosen's experience includes a past affiliation with the Center for the Study of Ethics in the Professions at the Illinois Institute of Technology where he developed and taught their first engineering ethics course. He also spent 15 years on the national staff of the American Public Works Association.

In addition to his EPD courses on public works infrastructure and municipal engineering, Rosen conducts a session on ethics in public works for the Public Works Supervisory Academy at UW-Madison, and helped develop and teach a two-hour ethics class for professional engineers.

"Acting ethically is especially important for professionals who work in the public sector," Rosen

Prohibited conduct

Receiving gifts or participating in decisions where there might be a conflict of interest are situations discussed in Freeburg's local government workshops. He cites the potential pitfalls of public officials accepting gifts or anything of value reasonably seen as intended to influence them. The state can enforce its prohibition of this conduct with a fine and a court might overturn an action seen as resulting from improper influence. Intentional violations are a crime.

For local government officials, conflicts sometimes arise between their public role and private interests, especially when letting contracts for improvement projects or equipment purchases with bidders that include companies they know personally or work with in another capacity. Freeburg says



the state statute is clear on what it terms “prohibited conduct.” Any

elected official or employee of the local authority who stand to gain if a contractor wins the job must remove themselves from all deliberations related to the bid process or risk criminal charges.

Even if there is no intent to act unethically, the public could perceive an action as questionable. In those instances, Freeburg advises public officials to err on the side of caution and disqualify themselves.

Rosen concurs and notes that ethical responsibility is a function of an individual’s role in local government—providing services in a cost-effective manner that serves the public good. “Following a code of ethics helps protect a profession from outside pressures and makes people in that role accountable for their decisions, especially where there is a hint of conflict.”

He describes a situation where someone who works for the highway department owns property that might be affected by a proposed improvement project. Should the public official be involved in selecting a route for the improvements? He has an obligation, Rosen says, to make known the potential conflict and excuse himself from a policy-making role.

Rosen notes that people working in government must maintain the distinction between “public” and “private” actions, arguing that public officials have responsibilities a private person does not.

Measure the consequences

Ethics is not just a matter of following the law, says Rosen. It is a function of what people do in their capacity as professionals. For people serving the public trust, he observes that ethics demands they use their professional knowledge and skills objectively on behalf of the community at large and not for personal gain. That includes doing the right thing even if the outcome is disagreeable or inconvenient.

In the ethics class for engineers, Rosen stresses the value of coping strategies that help people analyze situations before deciding on the best course of action, to identify a potential conflict and respond appropriately. He recommends using a series of tests to measure the consequences of their actions, like the universality test, which asks: *If everyone did what I’m about to do, what then?*

Sense of right and wrong

Freeburg often asks participants representing local governments who take his courses to judge various examples of a conflict of interest involving public officials that are not always clear cut, like a bid process where one vendor is a family member or close friend. Although the public official does not have an interest in the firm submitting the bid, should that official vote on the contract? Most course participants say

“no,” which Freeburg points out is more than the law requires in that case. “It indicates to me their sense of right and wrong, and says something remarkable about those who work in local government.”

Build public trust

Rosen and Freeburg both observe that rules of conduct are tools not traps and that promoting a culture of ethical behavior inside an organization influences every aspect of how it does business. Local public officials can use ethics codes and relevant state law to establish standards throughout an organization, building public trust and giving taxpayers confidence in the agencies they rely on for services.

Local governments that operate with transparency, decide issues honestly and guard against the potential for conflicts benefit the entire community. ■

Everyone working in local street and highway departments across Wisconsin should be prepared for situations that present an ethical dilemma.



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Resources

<http://llgc.uwex.edu>

Education resources for locally elected or appointed officials from the UW-Extension Local Government Center with information and trainings about local government structures, laws, and procedures in the State of Wisconsin.

<http://docs.legis.wi.gov/statutes/statutes/19/19111/41>

Code of ethics for public officials and employees.

<http://continuingstudies.wisc.edu/pdal/public-mgmt/academy.htm>

Public Works Supervisory Academy website has information about the nine-class program on management training for first- and second-line supervisors.



Ethics Q&A

Public-sector examples that underscore the importance of having an active ethics code.

When does accepting lunch or a cup of coffee from a contractor become unethical?

Ethics code prohibits accepting anything of value that appears reasonably intended to influence a public official or reward past action. The prohibition does not extend to accepting inexpensive freebies a company offers to everybody, like logo pens.

What is the rule about deciding to award a roadwork contract when one of the bidders is a friend?

Mere acquaintance with a bidder does not disqualify the official from participating in a contract decision. But deciding on an award that financially benefits the official, a spouse, dependent or affiliated organization is improper and prohibited. At the very least, ethics obligates a person to disclose **any** relationship in a situation like this.

Can a public official with a private tree-trimming business dispose of branches at a public works facility that is unavailable to other businesses?

This is a case of using public office for personal benefit, which goes against the code. And if the local government tolerates the activity, it also is in violation.

Data-driven improvement ideas target of safety funds

Treatments that qualify for HSIP funds range from improving a dangerous intersection to installing guardrail, warning signs and chevrons on dangerous curves.

PUBLIC ROAD AGENCIES in Wisconsin have available to them more specific crash data than ever for evaluating the value of road improvements that can save lives and prevent injury. The federally supported Highway Safety Improvement Program (HSIP) that local governments in Wisconsin turn to for help funding those safety improvements now makes crash data analysis central to every application.

The HSIP subsidizes cost-effective projects that reduce the number and severity of crashes on public roads. Treatments that qualify for HSIP funds range from improving a dangerous intersection to installing guardrail, warning signs and chevrons on dangerous curves. The program pays 90 percent of the cost for selected projects. Local governments cover the remaining 10 percent.

The Wisconsin Department of Transportation administers the HSIP and plans to introduce a high-risk rural roads program that is another option for local road safety improvements. WisDOT will identify rural roadways with high crash rates and work with local governments to decide on effective safety treatments that qualify for the HSIP match.

Performance-based

MAP-21, the U.S. transportation act signed into law late last year, is the reason state-administered

improvement programs have a greater reliance on predicting the expected benefits of proposed safety treatments and then measuring the actual outcome.

WisDOT's Scott Janowiak, who coordinates the HSIP and the rural roads initiative, says the change builds on the Federal Highway Administration's long-standing rules requiring state DOTs to justify proposed projects with data. Local road agencies applying for HSIP funds need to show evidence of a location's crash history and how a recommended treatment will make it safer.

A primary source for information local governments can use to plan projects and validate their request for matching funds is the WisTrans-Portal website maintained by the Wisconsin Traffic Operations and Safety (TOPS) Laboratory at the University of Wisconsin-Madison. Recent updates to the database (see story page 7) provide users with map data on crashes.

Magnify the benefits

Stand-alone projects, like an isolated intersection improvement, remain important to the HSIP program. But Janowiak notes that he and traffic safety engineers in WisDOT regional offices also seek opportunities to approve projects that fit into a larger, system-wide effort to reduce fatal and serious injury crashes. "Projects that are

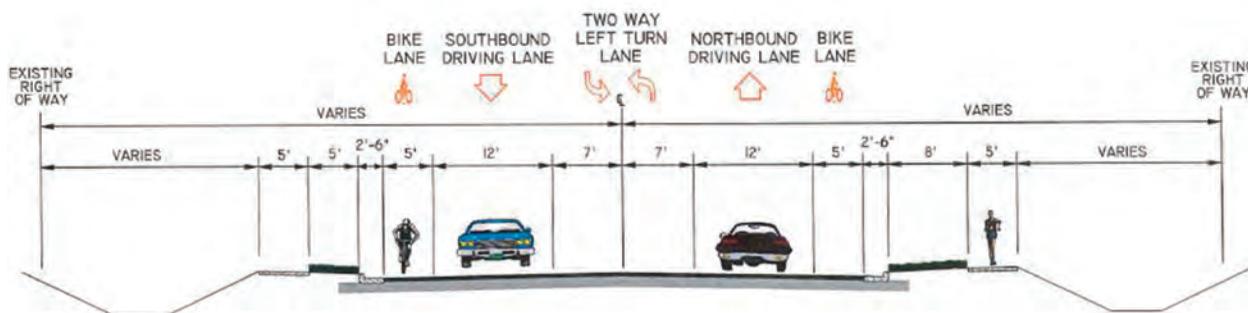
part of or a catalyst for improvements along a corridor or throughout a system help magnify the benefits of a single solution," Janowiak says.

David Jolicoeur, Safety Engineer with the Federal Highway Administration Wisconsin Division, says this broader look at crash history is important as transportation agencies focus on funding local projects they are certain are good investments in making a corridor safer.

Good example

A recently approved HSIP project submitted by the City of Chippewa Falls in the last funding cycle is a good example of separate projects that work well together. The proposal involves changes to an existing median on a four-lane divided highway, a principal arterial that serves as a gateway to downtown. Five years of crash data at the location recorded 33 intersection crashes. That number includes 17 right-angle crashes between vehicles making left turns from an intersecting collector street and vehicles moving in both directions on the highway. The safety improvement will modify the median opening where those crashes occurred to prohibit the dangerous left turns.

The stand-alone improvement earns its "system" credentials because several hundred feet down the corridor, the city is constructing a separate round-



Along with good crash data, successful HSIP applications benefit from detailed illustrations like this example showing proposed improvements.



IMAGE PROVIDED BY SEH, INC.

Aerial view of the Chippewa Falls project location **TOP** shows the existing four-lane divided highway with the problem intersection. Rendering **ABOVE** shows proposed changes for the HSIP safety project. City-funded roundabout project is at right.

about project. Janowiak says it increases the value of the HSIP project by offering road users a safer experience when navigating the corridor once the median improvement is made.

The HSIP project even benefited from a traffic impact analysis conducted by engineering consultants for the bigger project, according to Chippewa Falls Director of Public

Works Rick Rubenzer. He asked engineers from Short Elliott Hendrickson (SEH) Inc., to extend their review of the corridor to include an evaluation of crash data on the proposed HSIP project. WisDOT is working with Chippewa Falls to get the two projects on the same 2013 construction schedule, shortening the original HSIP time-frame by three years.

Does it meet the criteria?

In addition to the consultants from SEH, Rubenzer received valuable help from Traffic Safety Engineer Greg Helgeson in the WisDOT Northwest Region to evaluate the project's potential safety benefits and develop a sound proposal.

Helgeson regularly invites local road agencies to contact him early about projects they think might qualify for matching dollars.

"They come in for an initial screening with very preliminary information," he explains. "It's usually enough to tell us if the project is viable and saves them time doing an in-depth analysis if it's not."

Helgeson relies on a WisDOT formula to calculate the cost of the improvement against its crash-reduction benefit, asking: *Will this solution reduce crashes and improve safety enough to justify the cost?* He recalls that when Rubenzer asked for feedback

Regional Traffic Safety Engineer Greg Helgeson invites local road agencies to contact him early about projects they think might qualify. "It's usually enough to tell us if the project is viable and saves them time doing an in-depth analysis if it's not."

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Typical HSIP safety improvements

A list of stand-alone or spot projects that qualify for HSIP funds.

- Install or modify traffic signals
- Install roundabouts or channelize traffic
- Straighten or remove isolated curves or hills
- Improve sight distances
- Construct turn, bypass or other auxiliary lanes
- Modify access points
- Eliminate roadside obstacles
- Improve safety for pedestrians, bicyclists and people with disabilities
- Install guardrails, barriers and crash attenuators
- Install more traffic controls in problem areas, like ped-bicycle crossings and school zones

Data-driven improvement ideas

from page 5

on the idea for improving safety at the Bridge and Court Street intersection, he saw a project with potential and encouraged him to proceed.

The \$501,000 project requires widening or replacing pavement on one side of the road to accommodate the raised median, work on storm sewers, modifications to adjacent bridge decking and installation of signs and markings.

Meeting the match

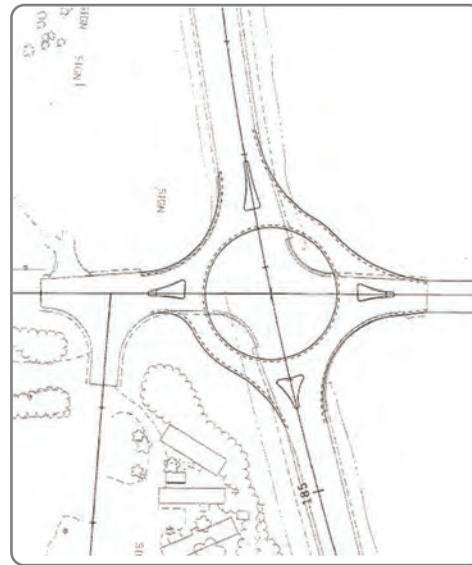
HSIP awards require local governments to pick up 10 percent of costs on approved projects to match the 90 percent in federal dollars. Allocating financial resources to meet this obligation plays a significant role in a local road agency's evaluation of project feasibility.

Rubenzer reports that Chippewa Falls considered several options. After conferring with the city planner, they decided to use the municipal financing tool of a Tax Incremental Finance, or TIF district, to reimburse the general obligation bonds they use to fund costs for both the HSIP segment and the roundabout. The roundabout is part of a larger downtown improvement project.

High-risk rural roads

The other class of projects that will qualify for HSIP funds are rural roads with high crash rates. Although MAP-21 eliminated the funding set-aside for the national High-Risk Rural Roads (HRRR) program, it still requires states to improve safety on these roads. So WisDOT decided to centralize its approach to funding HSIP improvement efforts on rural roads.

Janowiak's office is working with the TOPS Lab to review traffic data and rates for fatal and serious injury run-off-the-road crashes on rural collectors and local roads in Wisconsin. The goal is to identify the highest risk rural roads, rank them and then



Drawings that indicate how a roadway or intersection project will improve traffic safety in one location or along a corridor reinforce the benefits outlined in a HSIP proposal.

The goal is to identify the highest risk rural roads, rank them and then develop low-cost safety treatments in collaboration with local governments.

develop low-cost safety treatments in collaboration with local governments. WisDOT expects to announce the statewide list of the most at-risk corridors in late spring.

Taking the lead on this program allows WisDOT to avoid federal penalties—like less flexibility in allocating HSIP dollars—if fatal crash rates increase on rural roads.

Typical HRRR improvements along rural corridors include removing obstacles to improve clear zone, adding chevrons and other warning signs, installing rumble strips on the shoulder or centerline, and friction treatments.

Safer roads: everyone's priority

There are many opportunities to make roads safer in Wisconsin. Local road agencies with potential HSIP projects should initiate a preliminary review with WisDOT safety engineers in their region for guidance on submitting an application and advice on the next steps.

There are two application deadlines for the 2014-2017 funding cycle, August 15, 2013 and February 14, 2014. WisDOT will look for proposals supported

by data and with firm cost estimates and project timelines.

In conjunction with the Bureau of Transit, Local Roads, Rails, and Harbors, Janowiak and the regional engineers plan to conduct a series of roadshows around the state in coming months to talk about how the changes in MAP-21 affect local roads programs like the HSIP and the new process for evaluating rural roads.

Jolicoeur notes that local governments will be able to contribute to the 2013 update of Wisconsin's *Strategic Highway Safety Plan*, a major component of the HSIP. The Safety Plan depends on input from federal, state and local agencies to define areas of emphasis and treatments with the greatest potential to improve safety on the state's roads.

"Reducing fatal and serious injury crashes on public roads is a central priority of the federal agency as it is for WisDOT," concludes Janowiak. "And it's clear from HSIP proposals we receive that safety is a key concern for local governments when they prioritize road improvements in their jurisdictions." ■

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Resources

<http://www.dot.wisconsin.gov/localgov/highways/hsip.htm>

WisDOT webpage with links to HSIP coordinators in regions and the latest application forms.

<http://transportal.cee.wisc.edu>

Entry point for the traffic information services and data management system developed and maintained by the TOPS Lab.

WISLR-based update produces better crash data

FOR LOCAL ROAD AGENCIES in Wisconsin, activities like identifying high crash locations, prioritizing improvement projects and evaluating safety outcomes from an operational change require access to complete and reliable crash data.

A source many of them turn to is WisTransPortal (<http://transportal.cee.wisc.edu>). There, local road officials can review state and local crash data from 2005 to the present on computerized maps and extract a range of valuable safety information. A recent update based on WISLR, the web-accessible, GIS map-based local roads inventory system, promises to make WisTransPortal a better resource than ever.

The update makes it possible to combine information on road features and pavement conditions local governments enter in WISLR with detailed statewide crash data from the Wisconsin Department of Transportation database that supplies WisTransPortal. The Wisconsin Traffic Operations and Safety (TOPS) Laboratory on the UW-Madison campus created the recent enhancement with funding from the WisDOT Highway Safety Improvement Program (HSIP) in collaboration with WisDOT's Bureau of State Highway Programs and Bureau of Traffic Operations, the FHWA and other research partners.

Points on a map

TOPS Information Technology Program Manager Steven Parker says the result is a resource that merges state and local crashes on a single map linked to the state's roadway inventory system and GIS network. The change brings road attributes and crash history together for the kind of analysis local governments need to prioritize improvement projects and apply for transportation aids.

"Our goal was to display crash data that are more than just

points on a map," he notes. "The content and how it's organized gives analysts something they can examine according to a range of details, like functional class and traffic volumes, along with crash incidents."

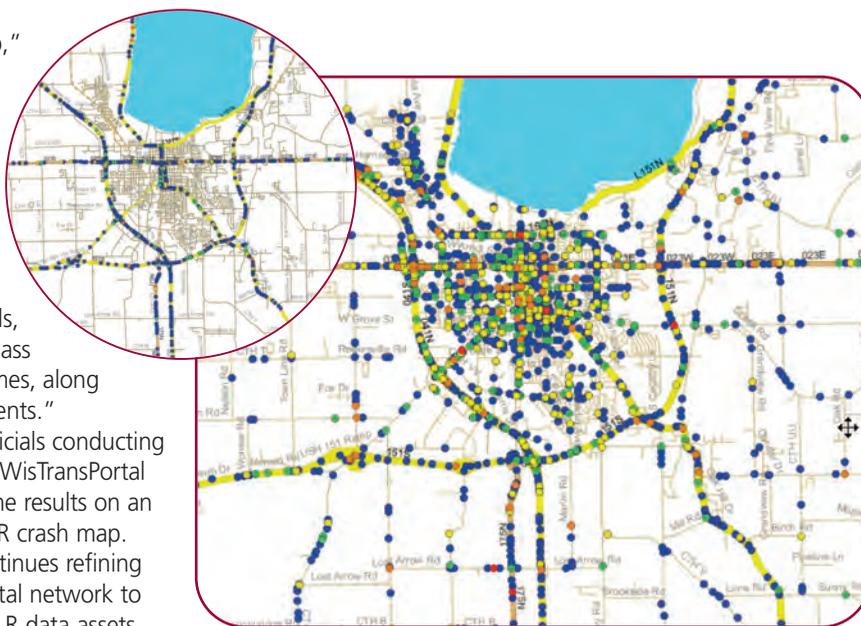
Local road officials conducting a search on the WisTransPortal now can view the results on an interactive WISLR crash map.

TOPS Lab continues refining the WisTransPortal network to bring more WISLR data assets together with the data on all crashes statewide. Future improvements include greater coordination between WISLR and Community Maps, an online tool that currently enables local law enforcement and Traffic Safety Commissions to visualize and map crashes. The Wisconsin Transportation Information Center has mapped fatal crashes in Community Maps from 2001 to the present. Some local governments also map injury crashes in their jurisdictions.

Data-driven decision-making

Parker says improving WISLR crash-mapping capabilities helps prepare Wisconsin to adopt the requirements for data-driven decision-making outlined in MAP-21, the federal highway bill signed into law last summer. He adds that it associates WISLR with safety improvements that are an intended role of the inventory tool, "because we know the surface condition of a road really does have an impact on safety."

Access to this kind of information also benefits TOPS Lab research and the group's efforts to improve safety by identifying crash trends on both state and



WISLR crash maps now combine information on road features and pavement condition with detailed crash data.

local roads, information they can share with road agencies across the state.

Local input

Local road agencies keep WISLR condition data up to date by entering details on their road assets every year and information on pavement condition every other year. Their contributions ensure the online inventory is a useful part of the combined data resource of the WISLR enhancement.

Parker encourages local road officials to access web applications at WisTransPortal, sample this new source for quality data and provide the TOPS Lab with feedback. ■

The change brings road attributes and crash history together for the kind of analysis local governments need to prioritize improvement projects and apply for transportation aids.

Resources

crash-data@topslab.wisc.edu
General TOPS Lab crash data resources.

<http://transportal.cee.wisc.edu/services/crash-data/>

Information on WisTrans-Portal crash data resources, including information on how to request user account access and/or crash history from TOPS Lab.

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Stronger, safer roads

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The Ellington and Curran projects are typical of the need towns across the state have to provide safe and passable highways for mixed-use traffic.

Into compliance

Ellington Town Chair Joe Schumacher says the town's TRID project will bring Main Road, an unsafe and substandard roadway, into compliance with minimum standards for its classification. The town's rehabilitation plan will widen the road, add shoulders and improve sight distances.

He describes Main Road as a major route for people commuting to the Fox Valley area. It carries 2,100 vehicles a day traveling at a current posted speed of 55 mph on shoulderless pavement that ranges from about 16 to 21 feet wide. Much of the volume is school traffic to and from a nearby



The Town of Ellington project reconditions a substandard road with cracks, potholes and patched areas that make it a rough road to travel. Now as narrow as 16 feet in some places, TRID-funded changes will widen it to 22 feet and add a four-foot, partially paved shoulder.

high school but two farm operations also make major use of the road. The agricultural businesses move wide and heavy farm machinery from their facilities daily and take up much of the roadway when they do, which makes it hard for other traffic to pass safely. Other motorists often drive down the center to avoid ruts and cracks in the road, creating a hazard for oncoming traffic.

Finally, a series of vertical curves near the farms dangerously reduce sight distances.

TRID-funded changes will replace current travel lanes with uniform 11-foot lanes, correct the curves and add a four-foot shoulder—three feet of it paved and one foot gravel. The plan is to pave the road with 4-inch-thick hot mix asphalt over a 6-inch base, some of it aggregate pulverized from the existing surface.

Engineering consultant Mike Kohlbeck from McMahon Engineering in Neenah, who is working on the project for the town, notes that while there is limited right-of-way to work with, they plan to improve drainage by adding small ditches in low-lying areas.

Slow traffic down

Another strategy the Ellington Town Board is considering at the recommendation of the engineers is to lower the speed limit on Main Road. The change would reduce speed on the entire road from 55 to 45 mph.

Kohlbeck says there is public concern about the speed of vehicles traveling the road and slowing traffic would increase safety. Right now, the town is exploring the option before proceeding with the necessary studies and approvals.

The availability of TRID funding came at the right time, notes Schumacher. Rehabbing Main Road was part of the Outagamie County town's three-year capital improvement plan but they waited to implement it until other projects on nearby state and county highways were completed.

The town received \$258,328 from the TRID program, just under

half the estimated total improvement costs of \$525,000. The town is securing a loan to complete the improvement and will pay its portion through the general tax levy.

Shared costs

The successful application from the Town of Curran in Jackson County meets several TRID criteria. The town is the lead on the proposal to improve a road in poor condition that is the sole access for two large agricultural operations and a farm-related service business. Together, the enterprises move hundreds of heavy loads annually on pavements no longer up to the job.

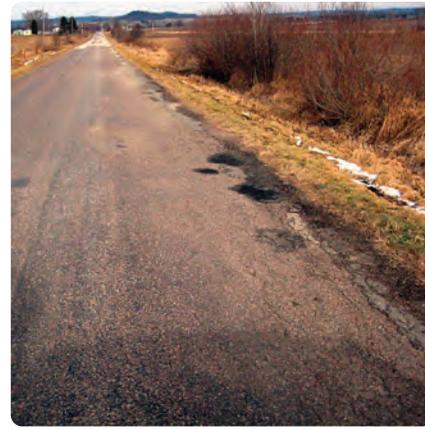
Lincoln Road runs for 3.4 miles between Curran and the Town of Springfield. The two jurisdictions are sharing the local portion of project costs.

Commuter traffic also uses the road and it is an optional route for the local mining industry. The pavement shows serious deterioration and pavement failure in places where the increase in heavy hauling is causing cracks to form. Shoulders along Lincoln Road are an inconsistent mix of turf and gravel that is breaking down.

Todd Olson, Curran Town Chair, says the two towns propose maintaining the current 20-foot road width but will add a uniform two-foot gravel shoulder along its entire length. The contractor will pulverize and add base material along the road, especially where needed to reinforce the farm entrances.

Because of changes in pavement condition on Lincoln Road, Olson says the entire road will get a 3-inch hot mix asphalt layer applied in two lifts. The project also includes widening the driveways to accommodate turns by the large and heavy farm equipment.

Watzke says that good documentation was important in the TRID applications to justify the proposed improvement. Curran gathered details from the farm operations for their application and concluded that the 500-cow operation and the 2,000-head hog



Lincoln Road in Jackson County shows serious deterioration along its entire 3.4 miles, a major reason the Town of Curran applied for TRID funds to upgrade it. Curran shares costs with the Town of Springfield of rehabilitating the pavement, adding a gravel shoulder and widening driveways where heavy farm equipment travels and turns.

facility "present both economic opportunity and infrastructure challenges." The farms move approximately 100 semi loads of feed annually. The dairy operation ships 240 tanker loads of milk every year. Large amounts of incoming feed and bedding and outgoing organic waste put pressure on the road surface as big equipment moves the material daily or multiple times a year.

Safety a factor

Managing the impact of these heavy loads is the primary reason for Curran's TRID project. A close second is safety. Besides commuter traffic and heavy loads, the traffic mix includes Amish buggies year round and snowmobiles in winter. The official average daily traffic count on Lincoln Road is 200 vehicles. The town suggests that since the ADT takes readings near intersections, the actual count for Lincoln Road is higher due to a greater number of vehicle trips between farm driveways. Not posted, the road has a statutory 55 mph speed limit.

Engineer John Beckfield of CBS Squared Inc. in Chippewa Falls reviewed the scope of the project and estimates for the TRID application, and is consulting on the process to let the project this spring for spring or summer work. He is developing a construction schedule that minimizes disrupt-

tions for the farm operations and allows the contractors to work efficiently and cost-effectively.

Curran and Springfield are dividing the costs according to the number of miles they manage and the work done on each town's portion, Olson says. The grinding is all on Curran's shorter side, for example, and the driveway issues are in Springfield territory. TRID will cover just under half the total \$382,944 improvement costs. The towns will receive \$188,429.

The Town of Curran plans to fund its portion with most of the town's road maintenance budget. "It will put a strain on us for a year or two and leave very little for the rest of the roads," Olson says. "We may take out a loan to make it easier but it's been a long time since we made such an improvement and this one's due."

Box of tools

The Ellington and Curran projects are typical of the need towns across the state have to provide safe and passable highways for mixed-use traffic, says Wisconsin Towns Association Executive Director Rick Stadelman, who worked with WisDOT on the 2012 TRID process. He hails the program as a "good box of tools" for towns with projects that were delayed or put off for lack of funds. "TRID offers a significant amount of state funds for projects that might not have been done or

Agricultural businesses move wide and heavy farm machinery from their facilities daily and take up much of the roadway when they do, which makes it hard for other traffic to pass them safely.

not in a fashion to meet the full needs of the projected traffic."

Stadelman says that like the examples described, towns need to build highways with wider shoulders that have adequate base and subgrade to carry heavier agriculture and logging vehicles. Such features increase project costs so access to a program that bears half the amount provides valuable assistance. He notes that towns draw on limited local revenue sources to pay their portion. But borrowing in the short term is common for funding projects at construction while using local funds for ongoing road maintenance in the jurisdiction.

The effort is an important step forward for better roads, concludes Stadelman. "This amounts to a substantial investment by the State of Wisconsin and by local governments in good management of local roads." ■

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Resource

www.dot.wisconsin.gov/localgov/highways/lrip.htm

Link to information about WisDOT Local Roads Improvement Program, including TRID.

Ideas proposed for funding state's transportation future

Commission members rejected an alternative that preserves the status quo and holds expenditures at current levels, an approach that would reduce the state's purchasing power and cause serious deterioration of roads, bridges and other infrastructure.

POLICY CHANGES and financing options to help Wisconsin achieve effective investment in its transportation networks is the focus of a report released in January by a commission created in the last state budget. The Wisconsin Transportation Finance and Policy Commission examined ideas for funding the future of all modes of transportation in the state, including local road and bridge facilities.

The ten citizen members of the commission included former elected officials, engineers, individuals representing economic development organizations, shipping businesses, labor and agriculture, and a former secretary of the Wisconsin Department of Transportation. Current WisDOT Secretary Mark Gottlieb served as chair and a non-voting member.

Comparing scenarios

Martin Hanson, a commission member with experience working on WisDOT programs supporting local roads, is a professional engineer and Director of Transportation Relations for Ayres Associates in Eau Claire. Hanson says the commission looked at existing funding levels and the current condition of transportation networks in the state as a basis for analyzing future options.

They worked from this and other data to compare different scenarios for meeting Wisconsin's transportation needs over the next ten years. In their report, the commission recommended a scenario that allows maintenance and operations to keep pace with those needs. This approach maintains the existing condition of roads and bridges, improves safety and provides for improvements. To compensate for declining revenues and fund this initiative, they outlined strategies that include raising the state gas tax, a new mileage-based fee and vehicle registrations fees.



Commission members rejected an alternative that preserves the status quo and holds expenditures at current levels. They suggested this approach would reduce the state's purchasing power and cause serious deterioration of roads, bridges and other infrastructure.

"Our recommendation to fund the system at slightly higher than current levels reflects how much the state depends on transportation to get people to their jobs, to school and move commerce on that system," Hanson observes. "We also looked for solutions to increase revenue that are realistic and balanced, and that support both economic growth and public safety."

Impact on local roads

Details in the report explore several finance and policy issues that affect management of local roads. The commission called for budgeting an additional \$40 million for the Local Roads Improvement Program, an approach Hanson says directs more dollars to capital improvements Wisconsin's local road agencies determine are important.

Also on the funding front, the commission recommended the state adjust the administration of General Transportation Aids (GTA) to reimburse for transportation-related purposes only—road

reconstruction, rehabilitation and maintenance. Hanson adds that they thought it imperative the department include local officials in discussions about revising and simplifying the GTA formula.

Speeding project delivery and reducing the cost of meeting financial and administrative requirements prompted another policy recommendation that would eliminate federal funds from local road improvement programs. The report states that replacing those dollars with state funds and the multi-layered federal process with state oversight makes sense for straightforward local projects.

Hanson notes that a commission recommendation to require qualifications-based selection of engineers on all local transportation projects is intended to ensure that, even with more streamlined management, they are backed by a level of professional skill and experience for determining construction costs and other functional details during the life of the project.

Wider review

Local road officials can go to <http://www.dot.wisconsin.gov/about/tfpl/index.htm> to download and read the complete report. Hanson observes that while the commission's role is advisory, its recommendations will benefit from wider review of the report by the public and by transportation professionals responsible for the roads, bridges and other facilities that keep Wisconsin moving.

"The current state budget proposal does not include many of the key recommendations, but these ideas deserve consideration and I encourage local public officials to discuss them with their elected officials and others," says Hanson. "Over time, commission members hope to see many of them adopted and put into practice." ■

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Resource

<http://www.dot.wisconsin.gov/about/tfpl/index.htm>

Link to download of *Keep Wisconsin Moving: Smart Investments, Measurable Results*, the Transportation Finance and Policy Commission report.

RESOURCES

Publications

Setting Speed Limits on Local Roads, TIC Bulletin #21, 6 pp., 2009. Good overview for local governments provides background on speed studies, information on statutory limits and statewide guidelines. It also details the process for changing limits and covers other speed issues.

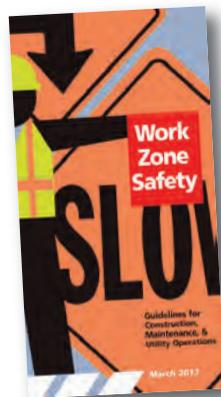
Methods and Practices for Setting Speed Limits: An Informational Report, April 2012, FHWA. Report issued by the FHWA offers broad overview of strategies local highway agencies can use to set speed limits. Discusses speed limit basics, methods, data collection and the use of USLIMITS software. Includes case studies on road types. Download at: http://safety.fhwa.dot.gov/speedmgtrf_mats/fhwa12004/fhwa12004.pdf

Local Road Assessment and Improvement: Drainage Manual, 20 pp., 2000, TIC. Information for local officials on assessing drainage systems and rating roadway drainage.

PASER Manual Series, 2000-02, TIC. Pavement Surface Evaluation and Rating manuals provide help with road ratings process; review of surface condition and repairs for most road surface types, describes and illustrates common defects. Includes surface rating system that links type, number and severity of defects with maintenance methods.

- Asphalt-PASER Manual**
39 pp., 2002
- Brick and Block-PASER Manual**
8 pp., 2001
- Concrete-PASER Manual**
48 pp., 2002
- Gravel-PASER Manual**
32 pp., 2002
- Sealcoat-PASER Manual**
16 pp., 2000
- Unimproved Roads-PASER Manual**, 12 pp., 2001

Work Zone Safety, 60 pp., 2013. Illustrated handbook provides information and guidelines for temporary traffic control. Includes examples of typical applications applied to construction, maintenance and utility work zones.



Available in print or as download.

DVD/Video/Multi-media

Comprehensive Intersection Resource Library, FHWA, 2004, #18739, CD. Explores federal and state guidelines and other useful resources for intersection design of signalized and unsignalized intersections, roundabouts and rail grade crossings. Also includes publications about designs that address pedestrian and older driver considerations.

Web Sources

Local Government Center publications include fact sheets on governance issues, bulletins that cover frequently asked questions and other resources.

<http://lgc.uwex.edu/publications/pubs.html#faqs>

Information and resources on ethics in government from the Wisconsin Government Accountability Board, including standards of conduct, advisory opinions and online tutorial.

<http://lgab.wi.gov/ethics>

Government Accountability Board guidelines for the acceptance of food, drink or other favors by local officials.

<http://ethics.state.wi.us/Forms-Publications/Guidelines/219-items-serv-lpos.pdf>

Print copies of listed publications available free from TIC. Download or request items at **Publications** on TIC website. Video, CDs, and DVDs loaned free at county UW-Extension offices. Also see **Video Catalog** on TIC website.

TIC website

<http://tic.engr.wisc.edu>



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“ The program offers a significant amount of state funds for projects that might not have been done or not in a fashion to meet the full needs of the projected traffic. ”

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CALENDAR

TIC Workshops

Details, locations and registration forms sent to all *Crossroads* recipients prior to each workshop. Workshop information and online registration also available at: <http://tic.engr.wisc.edu/workshops/listing.lasso>

Work Zone and Flagger Safety

Learn to apply effective work zone traffic controls. Improve the safety of motorists, pedestrians, bicyclists and workers. FEE: \$80

- APR 23 TOMAH
- APR 24 BARNEVELD
- APR 25 OCONOMOWOC
- APR 26 OCONOMOWOC
- APR 30 EAU CLAIRE
- MAY 1 HAYWARD
- MAY 2 WAUSAU
- MAY 3 KIMBERLY

WEBINARS

FEE per site, per session: \$25

JULY 16 – *How to rate your roads using PASER*

JULY 23 – *WISLR 101: The Basics*

JULY 30 – *How do I submit my pavement ratings in WISLR?*

AUGUST 6 – *Using WISLR Pavement Analysis Tools*

Watch the TIC website for details on five *PASER/WISLR* workshops scheduled for June.

Public Works Supervisory & Management Courses

Additional program and enrollment information available at <http://tic.engr.wisc.edu/certificates>.

MAY 7 – MADISON

Customer Service

Learn to identify and respond to citizen needs and deal with difficult requests. FEE: \$155

MAY 21 – MADISON

Management Assessment

Learn strategies for developing individual management strengths in support of agency goals. FEE: \$155

JUNE 12 – MADISON

Budgeting, Fund Accounting and Grant Administration

Learn to prepare and analyze a budget, meet legal requirements and review capital fund budgets. FEE: \$155

On-Site Workshops

TIC brings instruction to your shop or office that fits your specific needs. Train more people for the same cost or less. Contact TIC to book the program and date you want for:

- Basic Surveying for Local Highway Departments
- Basic Work Zone Traffic Control
- Flagger Training

UW-Madison Seminars

Wisconsin local government officials are eligible for a limited number of scholarships for these EPD courses held in Madison. Find out more at <http://lepd.engr.wisc.edu> or 800-462-0876.

A P R I L

2-3 Successfully Implementing Total Productive Maintenance N861

4-5 Effective Preventive/Predictive Maintenance N862

8-9 Using WinSLAMM v. 10: Meeting Urban Stormwater Management Goals N591

15-16 Municipal Engineering Fundamentals for Non-Engineers N514

18-19 Maintenance Management: Organization and Systems N940

M A Y

1-3 Using HEC-HMS to Model Watersheds N419

1-3 Repair of Concrete N718

6-7 Implementing An Effective and Practical Predictive Maintenance Program N498

6-8 Using HEC-RAS to Model Bridges, Culverts, and Floodplains N420

8-9 Effectively Planning and Scheduling Your Maintenance Operations N499

J U N E

10-11 Coaching and Mentoring for Technical Leaders P079

Independent Study

Project Management 100: The Basics, Plus Important Insights #N547

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