

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.

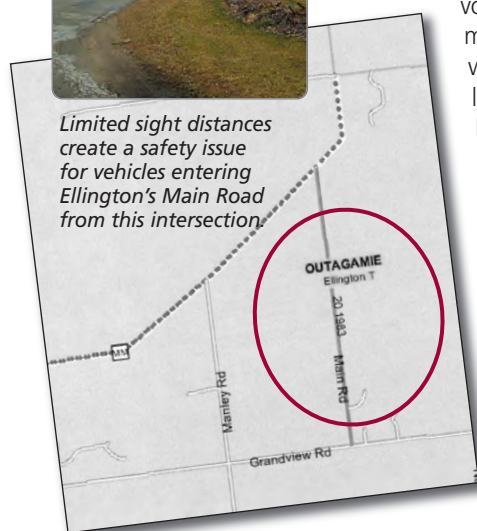
The Wisconsin Towns Association and WisDOT, along with a committee of town officers and groups representing the state's farming, dairy and timber



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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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 disruption

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." ■

Contacts

John Beckfield P.E.
CBS Squared Inc.
715-861-5226
jbeckfield@cbssquaredinc.com

Mike Kohlbeck
McMahon Group
920-751-4200
mikohlbeck@mcmgrp.com

Todd Olson
Town of Curran
715-662-4353
olsonsc@centurytel.net

Joe Schumacher
Town of Ellington
920-739-8567
Joe.Schumacher@outagamie.org

Rick Stadelman
Wisconsin Towns Association
715-256-3157
wtowns1@frontiernet.net

Janice Watzke
Wisconsin Department of Transportation
608-266-9497
janice.watzke@dot.wi.gov

Resource

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

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