

Idea Exchange

Flashing stop/slow paddle gains fans

Patrolmen and flaggers in Chippewa County have taken a real shine to the new stop/slow paddles with flashing lights, according to Highway Commissioner Bruce Stelzner.

"They feel that motorists are paying more attention to the signs and that's making the work zone safer for them," Stelzner says. "They're a great tool."

The paddles, which were developed under a FHWA program called SHRP (Strategic Highway Research Program) are still being evaluated according to WisDOT's Bob Fasick. The four models under consideration range in cost from \$125 to \$450. They are available commercially from several manufacturers.

For more information on the paddles and their evaluation contact WisDOT Highway Operations Engineer Bob Fasick, P.O. Box 7986, Madison, WI 53707-7986, phone: 608/266-3438, e-mail: fasick@mail.state.wi.us.

Double the blades and halve the time

Mounting a second blade at the back of a grader has made shouldering operations safer and more efficient, says Walworth County's Highway Commissioner Ben Coopman.

"It's faster and it's safer. You don't have to put a grader on the pavement in live traffic," Coopman says.

The second blade, which is a small moldboard with a standard cutting edge, mounts at the back using the same controls and hydraulic hoses as the benching wing blade. A small "bogy" wheel supports the blade allowing it to be raised or lowered to match the slope of the shoulder.



Trailing a second blade eases shoulder repairs

"One operator went around our whole 200 mile system this year, and went back in the fall to hit some bad spots," says Coopman. "Usually two graders only do about 150 miles."

For more information, contact Kray Brown, Patrol Superintendent, or Shop Foreman Larry Hensel at the Walworth County Highway Department, 414/741-3114.

Writing better bid documents

Ensuring high quality work and reasonable cost for road projects is a challenge. Getting competitive bids, as required on most road projects, can add to the challenge, especially if bidders have different understandings of the project.

The bid documents you prepare are your primary way of communicating with contractors. These written materials describe the nature of the project so that all bidders have the same understanding and can offer fair and competitive prices. To help local officials with preparing these documents, the T.I.C. has developed some guidelines and sample bid documents.

Initial decisions A checklist for highway and street owners in sample documents prepared by the T.I.C. reminds you of the critical decisions you must make. Talking with contractors and other knowledgeable experts can help you make these initial project decisions. You decide on the **type** and **quality** of the work. It's usually a good idea to let the contractor decide **how** to do the work.

Timing The warm summer months are the best time to complete asphalt paving and sealcoating. The owner needs to ask for bids early enough in the spring or winter to let the contractor finish the project in favorable weather.

Qualification You must assure that the contractor can do quality work on your project. It may be easiest just to require that all bidders be pre-qualified by the Wisconsin Department of Transportation. If this excludes qualified local contractors, however, you must check their qualifications yourself. Check their references, determine that they have the equipment needed for the job, and find out how much experience the work force has.

Preparation work On paving and sealcoat projects there can be confusion over who is responsible for pavement repairs and exactly what will be done before the overlaying or

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Crossroads

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Getting unsafe mailboxes off highways

Two WisDOT Districts have taken action to reduce the number of unsafe mailboxes along state trunk highways. In District 4, student engineers spent the summer of 1995 surveying unsafe boxes and supports. They found 1,052 of them that were too heavy, too high, protruding too far into the road, in unsafe bases, etc. On the district's 1,350 centerline miles of road, that's about one every 1.3 miles.

"We left them a letter and pamphlet to let them know they had a roadside hazard," says Dan Grasser, Chief Maintenance and Traffic Engineer, District 4, Wisconsin Rapids. By Christmas 1995 about 500 of the hazardous boxes had been changed. The letter advised homeowners to return an enclosed follow-up card as evidence of removing the hazard. Otherwise, if a crash occurred and the box were unchanged, the homeowner might be liable for damages. Several counties in District 4 have begun a similar effort on their county trunk highways.

"I was impressed with how bad the situation was," says Jim Voborsky, Maintenance Supervisor in District 7, Rhineland. "Over the years we'd been trying to eliminate mailboxes that obviously would kill somebody, but then we decided to bite the bullet and do them all. It was unbelievable! There were a lot more than we had estimated."

Counties in District 7 assigned the job to a patrol superintendent, a beat patrolman, or another worker. On every hazardous mailbox they hung a plastic bag with a letter and informational brochures. The mailbox was photographed and recorded as well. "We put notices on everything that was bigger than the dimension size lumber. I'd guess there were around 1,500 in the eight counties," says Voborsky. District 7's letter also included a return mail form with a deadline for sending it back.

The number of vehicle-mailbox crashes keeps going up across the country. When you start looking systematically at your area's mailboxes you understand why. Surveying the boxes and notifying the owners seems to be the most effective approach to making roads safer.

Contact the T.I.C. for copies of Voborsky's letter and the informational brochures **It's Nice to Be Different**, and **Mailbox Safety**. Mail or fax the form on page 7, call 800/442-4615, or e-mail: ranum@engr.wisc.edu



Top left: Milk can mailboxes may cause rollovers.

Top right: Loosely attached planks can fly through windshields. This one has the District's advisory letter.

Far left: Loose concrete block behind mailbox could easily penetrate car's windshield.

Left: Installing a safe mailbox support is relatively simple.

Writing better bid documents

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sealing phase. Be careful to clearly define the extent of the work and to assign specific responsibility. This will help ensure that bids are fair and competitive.

Specifications All bid documents should require that work be done in conformance with the Wisconsin Department of Transportation Standard Specifications for Road and Bridge Construction. Local officials will need to make some additional specification decisions because the standard has many options, some of which are not appropriate for local roads. For example, the specs say asphalt materials may conform to HV, MV, or LV mix specifications. Most local roads would benefit by conforming to LV (low volume) specifications; materials designed for very high volume roads (HV) are generally not appropriate.

Sample specifications and sample bidding documents for small projects are available through the T.I.C. They were discussed in two ETN training sessions. Audio tapes of both sessions are available. See **Resources** for details.