RESEARCH NOTES

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ENGINEERING SERVICES SECTION
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Flashing Stop/Slow Paddles
Portable Rumble Strips
Intrusion Alarms

Use and Evaluation Update

The Research Unit, with the assistance of the Technology Transfer Center and Dave White, retired Safety and Employee Services Section Manager, has been evaluating the use of Strategic Highway Research Program (SHRP) products during the current construction season. SHRP was established in 1987 to improve the performance of our nation's roads and to make those roads safer for both motorists and highway workers. Following are the latest results of our experiences with the SHRP work zone safety products.

Flashing Stop/Slow Paddles

The Flashing Stop/Slow Paddle was developed to help flaggers attract the attention of drivers, making highway work zones safer. Currently, 20 signs are being field tested across the state. Early evaluations are generally favorable toward the use of the paddles. Users believe they do attract motorists' attention. Negative remarks have been directed at the weight of the paddle, the location of the on/off switch, and the length of the staff, when so equipped.

The MUTCD specifically states that the lights must be "white high intensity lamps." It is recommended to only use the flashing lights when drivers are apparently not slowing and preparing to stop. Don't "flash" everyone. By not flashing everyone, the batteries will last longer and motorists will not get accustomed to always seeing flashing lights.

Portable Rumble Strips

The portable rumble strip is designed to be temporarily placed at one or more locations ahead of a flagging station. The strip, or series of strips, should be placed at least 300 feet in advance of the flagger. The strip causes a jolt and an audible rumble, alerting drivers of the need to either slow or stop. The device is primarily for flagger operations where moderate-speed traffic may be stopped intermittently. It is not designed for higher speed traffic.

The rumble strip is 3 meters long, 45 centimeters wide, and weighs 35 kilograms (approximately 10' x 18" and 70 pounds). ODOT has 10 strips currently being evaluated. Early reports suggest that they are somewhat cumbersome, but they do attract the driver's attention.

Intrusion Alarms

Intrusion alarms provide a detection and warning system that monitors the buffer area between vehicles and work crews. If a vehicle intrudes into this buffer area, the alarm is triggered; almost instantly a piercing warning siren sounds.

We currently have two units available. One unit uses an infrared system and the other uses an air tube switch. When a vehicle crosses the infrared beam or compresses the pneumatic tube, an alarm sounds. Larry Lindley's crew in Eugene is testing the infrared system. The crew reported that the intrusion alarm could be heard over truck noise. The system was effective on tangent sections, however, on curved sections the distance to the device was too short to offer much advanced warning. Early reports are favorable but more testing is needed. The air tube unit will be used later this summer.

If you have questions or suggestions regarding the use of these products, contact your Region or Branch Safety Manager or the Research Unit.

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