

## Management Practices that Reduce Worker Fatigue

### *Guidelines and training to reduce worker fatigue in rapid renewal projects*

Reconstruction projects that require accelerated schedules often generate additional pressures on the workforce, requiring longer day shifts, night and weekend work, and work conducted in protected zones adjacent to traffic. These conditions—which can affect laborers, superintendents, and management—can result in worker fatigue, which, in turn, can lead to possible increases in worker accidents. State and local transportation department managers need to better understand the factors associated with workforce fatigue and stress in the rapid renewal environment so that the risks to worker safety can be reduced.

### *Identifying and Reducing Worker, Inspector, and Manager Fatigue in Rapid Renewal Environments*

## The Solution

Developed through the second Strategic Highway Research Program (SHRP2), this project examined the **causes of fatigue and stresses experienced by workers during rapid renewal projects**, which resulted in the development of **guidelines and training to increase worker safety**. Outcomes and products include the following:

- An integrated set of rapid renewal workforce fatigue risk factor definitions, and fatigue risk management practices and techniques;
- A toolkit with procedures for state and local transportation departments to comprehensively manage workforce fatigue in the rapid renewal environment; and
- Model training and outreach materials to assist in future implementation.

These products provide state and local transportation departments with the tools needed to manage workforce fatigue and increase worker safety.

### Minimizing worker fatigue during rapid renewal projects

#### FOCUS AREA: Renewal (R03)

Guidelines, procedures, outreach, and training manuals provide solutions for avoiding worker-related injuries due to fatigue.

#### Save Lives

- Understanding how to maximize worker efficiency without creating worker fatigue leads to safer working conditions and fewer injuries to employees.

#### Save Money

- Improved safety conditions lead to an improved bottom line through better worker effectiveness and time savings.

#### Save Time

- Reduced worker accidents results in improved project productivity.

## The Benefits

Reducing worker fatigue in rapid renewal environments will benefit transportation departments, workers, and the public. Numerous benefits flow from having fewer worker injuries due to fatigue. Fewer worker injuries increases project productivity, which reduces project costs, lessens traveler delay, and keeps projects on time and within budget.

## Who can use these tools?

The anticipated users for this material include state and local transportation departments and workers at multiple levels involved in highway construction projects using rapid renewal techniques.

## How can you learn more?

For more information, contact Bryan Cawley at FHWA, [bryan.cawley@dot.gov](mailto:bryan.cawley@dot.gov). Updates on current implementation efforts can be found at [www.fhwa.dot.gov/GoSHRP2](http://www.fhwa.dot.gov/GoSHRP2) or <http://SHRP2.transportation.org>.



### About SHRP2 Implementation

The second Strategic Highway Research Program is a national partnership of key transportation organizations: the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the Transportation Research Board. Together, these partners conduct research and deploy products that will help the transportation community enhance the productivity, boost the efficiency, increase the safety, and improve the reliability of the Nation's highway system.

### Strategic Highway Research Program

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