

IN 2010, 576 WORKERS AND MOTORISTS WERE KILLED IN HIGHWAY WORK ZONES, MORE THAN 37,000 WERE INJURED

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# Did You Know?

A 727 jet would have to crash *every day of the week* with no survivors, to equal the 33,000 highway deaths per year in the U.S.! (So then why does 1 plane crash every 5 years make more news?!)

Did You Know?

Drivers who use hand-held devices while driving are 4 times as likely to get into crashes.

Drivers reportedly distracted at the time of their fatal crashes increased from 7% in 2005 to 11% in 2009.

# Did You Know?

In 2010 there were 105 fatal occupational injuries at road construction sites.



Did You Know?

4 out of 5 work zone *fatalities* are *drivers* and their *passengers*.

# Did You Know?

Nationwide a work zone *fatality* occurs once every 15 hours!

42% of work zone crashes occur in the transition area *prior* to the work area.

# National Work Zone Awareness Week

# Calls Attention to Increases in Fatalities, Injuries, Road Hazards and Dangers of Work Zones

The annual *National Work Zone Awareness Week* (NWZAW) is held in April each year. The purpose of NWZAW is to educate the nation on work-zone related injuries and fatalities. Part of the education effort is to inform the public of the hazards and dangers that can be encountered and avoided when driving through a roadway construction zone.

Nationwide there were 32,885 *fatalities* in motor vehicle traffic crashes in 2010; 576 persons were killed in construction and utility work zones. In Colorado, although the average total motor vehicle traffic fatalities in 2005-2010 decreased, Colorado's average number of *work zone fatalities increased* 8% from what it was in 1999-2004.

To reverse this trend, a continued effort is needed to improve the safety of work zones. To respond to this need, the Colorado Local Technical Assistance Program (LTAP) has joined with the efforts of the other 57 LTAP-TTAP centers across the country to improve work zone awareness. Promoting National Work Zone Awareness Week is one step in this effort. Continued training on the standards and methods of traffic control through construction and maintenance work zones is another aspect of our effort.

Developed by Colorado LTAP, this booklet is provided to help YOU improve motorist, worker and pedestrian safety in roadway work zones.



# Top 10 Worker Safety Tips



- 10. Encourage Safety with Co-Workers
- 9. Create a "Work Zone Plan" at Each Site
- & Stay Within "Safe Zone" While Working
- 7. Report Problems and Corrective Ideas to a Supervisor
- 6. Make Eye Contact with Driver of Moving Equipment
- 5. Be Alert of Motorists
- 4. Review Work Rules on Safety
- 3. Attend Safety Training Meetings
- 2 Obey All Safety Rules



1. ALWAYS WEAR PROPER SAFETY GEAR!

# Top 10 Driver Safety Tips



- 10. Obey Road Crew Flaggers and Speed Limits
- 9. Look Out for Workers & Flag Persons
- 8. Don't Tailgate Keep a Safe Distance Between
  You and Car Ahead of You
- 7. Avoid Changing Lanes In a Work Zone
- 6. Minimize Distractions, Such As Phones & Radio
- 5. Stay Alert
- 4. Be Patient Roads Improvements Benefit YOU
- 3. Keep Up With The Traffic Flow
- 2. Expect the Unexpected Work Zones Can Change Overnight

#1 WZ DRIVER SAFETY TIP...

1. PEOPLE WORK THERE!



To increase awareness and improve work zone safety, every summer June - September, CDOT teams up with the Colorado State Patrol and other local agencies to conduct the "Slow for the Cone Zone" campaign, which entails overtime enforcement on highly-visible construction projects across Colorado.

With every construction zone comes equipment, workers and even daily changes in the road and alignment you may be traveling. As a result, it is critical that you do your part to make the cone zones safe. Lower speed limits, flaggers and police enforcement are all used to help keep work zones safe, but *motorists* still need to drive responsibly.

Remember, in Colorado, fines are doubled for most infractions that occur in a work zone. 2006 marked the first year that the majority of fines in work zones are doubled. This law, also known as the Lopez-Forster Act, was named in honor of two CDOT maintenance employees that were killed in a work zone accident in 2004. Funds from the fine increase are used for work zone safety signage, equipment and additional enforcement on highway work zones.

The campaign is active during CDOT's peak construction season; however, it is important for motorists to pay attention in every work zone regardless.

#### CDOT's Cone Zone Website has links for:

- Colorado Crash Statistics
- Safe Driving Tips
- Media Room
- Work Zone Campaign

#### **Work Zone Safety Public Awareness**

To increase awareness about work zone safety - a work zone logo, radio and television public service announcements, and a work zone poster are available for your use under the *Media Room* link at: http://www.coloradodot.info/programs/cone-zone/.



# National Work Zone Safety Information Clearinghouse



The nation's most comprehensive information resource on roadway construction zone safety. The Clearinghouse has the largest online library of free information including accident and crash data, latest technologies and equipment, best practices, key safety engineer contact information, laws and regulations, worker safety training materials, research and publications, public education campaigns, Spanish language materials and educational materials for new drivers.

#### **National Work Zone Awareness Week (NWZAW)**

Scheduled in April each year, NWZAW is a national campaign that helps increase public awareness of work zone safety. This site provides resources to help educate the nation on work-zone related injuries and fatalities and the hazards that can be encountered and avoided when driving through a road construction zone. Activities, Posters, WZ ribbons, T-shirts, media clips, news articles, and more.

#### **Work Zone Safety Grant**

SAFETEA-LU established the FHWA Work Zone Safety Grant Program. To date the Grant has generated a wealth of products, publications, and training resources for roadway construction industry practitioners. More than 45 guideline publications and field guides, 40 training modules, and an entire learning program have been developed to date. Access free guides such as *Guidelines on Work Zone Access and Egress, Work Zone Safety: Temporary Traffic Control for Maintenance Operations*, and more.

#### **Webinars & Streaming Videos**

View or download past webinars such as *Guidance on Managing Speeds in Work Zones* held on November 30, 2011.

#### **ROADWAY SAFETY+**

The Roadway Safety Awareness Program provides an overview of common hazards in road construction and simple prevention measures. It is designed to help your company produce the worker awareness needed to achieve best practices. The program contents are available in English, Spanish, and Portuguese.

Work Zone Fatalities & Fatal Occupational Injuries at Road Construction Sites Data on fatalities in roadway work zones as a result of motor vehicle traffic crashes that are included in the Fatality Analysis Reporting System (FARS). The data is available by year and state.

# Work Zone Safety On the

## http://www.fhwa.dot.gov/workzones

Work Zone Mobility and Safety Program - The goal of this program is to "make work zones work better" by providing transportation agencies with high-quality products, tools, and information that can be used to help improve work zone management, and ultimately reduce congestion and crashes due to work zones. This website provides numerous resources that can be of value in planning, designing, and implementing safer, more efficient work zones. The site includes guidance for implementing the Work Zone Safety and Mobility Rule; a Best Practices Guidebook; ITS; Work Zone Self Assessment; Training; and free Technical Assistance opportunities.

## http://www.ops.fhwa.dot.gov/wz/outreach/wz awareness.htm

FHWA's *National Work Zone Awareness Week* website provides history of the event, safety videos, and program-level public information, usable service announcements, and outreach examples.

## http://ops.fhwa.dot.gov/wz/p2p/index.htm

The *Work Zone Peer-to-Peer Program* is a part of the FHWA Office of Operations Work Zone Mobility and Safety Program and provides agencies guidance in the application of methods, tools, and strategies to increase work zone safety. Free assistance is available in areas such as planning, public relations, impact analysis, enforcement, incident management, and more. The program has a list of people who are willing to volunteer their time and knowledge. Requesting agencies will be paired with professionals who have had similar situations arise and have found innovative solutions. A program coordinator will get your agency paired with a peer volunteer to get you started on finding the solution to your work zone problem.

## www. the safety library. com/lib/constructions a fety/work zones a fety. php

The *Safety Library* is a collection of online resources including safety manuals, checklists, toolbox talks, insurance, legal and risk management on a variety of topics. The Work Zone Safety sub-section of Industry Safety > Construction Safety provides resources for work zone safety campaigns, materials, policies, equipment, devices, best practices for minimizing delay and enhancing safety during highway construction and maintenance operations, NCHRP Report 350, and crash worthiness of work zone appurtenances.

Crashworthy Work Zone Traffic Control Devices - FHWA policy calls for the use of crashworthy channelizers, signs, barricades, barriers, etc., in work zones on the National Highway System. "Crashworthy" devices are those that have passed a crash test conducted under the guidance of NCHRP Report 350, Recommended Procedures for the Safety Performance Evaluation of Highway Features. This site provides info about FHWA policy on crashworthy hardware, different categories of work zone devices, FHWA Acceptance Letters on all devices that have been deemed crashworthy, Frequently Asked Questions about work zone devices, and more.

**NOTE:** NCHRP Report 350 has been *updated and superseded by* the Manual for Assessing Safety Hardware (MASH) - http://www.workzonesafety.org/safety\_products/nchrp\_350\_approval.

# http://safety.fhwa.dot.gov/roadway\_dept/policy\_guide/road\_hardware/policy\_memo/memo112009/

Manual for Assessing Safety Hardware (MASH) - The purpose of this report is to present uniform guidelines for the crash testing of both permanent and temporary highway safety features and recommended evaluation criteria to assess test results. Guidelines are also presented for the in-service evaluation of safety features. MASH is an update to and supersedes NCHRP Report 350. MASH does not supersede any guidelines for the design of roadside safety hardware, which are contained within the AASHTO Roadside Design Guide. The MASH can be pirchased from the AASHTO bookstore at: https://bookstore.transportation.org.

## http://www.cdc.gov/niosh/topics/highwayworkzones/

As a leader in preventing workplace injuries, the National Institute for *Occupational Safety and Health's Highway Work Zone Safety* website provides information on Highway Work Zones Fatality Investigation Reports, Crash Statistics and Prevention Strategies, an International Work Zone Safety Resources webpage, the new MUTCD, Construction Equipment Visibility, Protecting Workers in Construction, and Building Safer Work Zones.

## http://www.Flagger.com

The *National Flagger Database* is managed by the American Traffic Safety Services Accociation (ATSSA) and provides a search for flaggers, state flagging requirements, classes, or instructors - by state of interest.

# Online Flagger Training

OnlineFlagger.com American Traffic Safety Services Accociation (ATSSA) https://www.nhi.fhwa.dot.gov National Highway Institute, search "Flagger" http://www.clrp.cornell.edu/flaggingTutorial/flagTutorial.htm

NY LTAP Work Zone Safety and Flagging Tutorial

# Work Zone Safety Online Publications

Work Zone Safety and Mobility Procedures Colorado DOT, January 2009 and

Guidelines for the Use of Positive Protection in Work Zones

Colorado DOT, January 2010

Search "Work Zone Safety & Mobility" at: http://www.coloradodot.info

## Colorado Work Zone Best Practices Safety Guide

Colorado DOT, 2007 (Updated February 2008)

http://www.coloradodot.info/library/traffic/traffic-manuals-guidelines/lane-close-work-zone-safety/work-zone-booklets-guidelines

## Field Guide on Installation and Removal of Temporary Traffic Control for Safe Maintenance and Work Zone Operations

American Traffic Safety Services Association (ATSSA), August 2008 Search "Field Guide on Installation" at: http://www.coloradodot.info

## Colorado Supplement to the 2009 MUTCD

Colorado DOT, January 2011

Search "MUTCD" at: http://www.coloradodot.info

# **Standard Highway Signs and Markings Book** FHWA, 2004 with **2012 Supplement**

http://mutcd.fhwa.dot.gov/ser-shs\_millennium.htm

## Manual for Assessing Safety Hardware (MASH)

NCHRP 350 has been *updated and superseded by MASH* 

https://bookstore.transportation.org/item\_details.aspx?ID=1539

## Work Zone Intersection Safety

Federal Highway Administration, November 2009, FHWA-SA-10-005

http://safety.fhwa.dot.gov/intersection/resources/fhwasa09027/resources/Intersection%20Safety%20Issue%20Brief%2016.pdf

# A Primer on Work Zone Safety and Mobility Performance Measurement,

November 2011, FHWA-HOP-11-033

visit www.ops.fhwa.dot.gov/wz/decision\_support/performance-development.htm

# More work zone publications, books, reports, and articles accessible at: http://www.workzonesafety.org/research

# **Recent Reports**

*Fact Sheet: Power Line Safety – Evaluating the Work Zone,* March 2012 http://www.orosha.org/pdf/pubs/fact\_sheets/fs46.pdf

Automated Speed Enforcement in Work Zones, Roadway Safety Consortium, 2012 http://www.workzonesafety.org/research/record/21514

# Rear-End Crash Potential Estimation in the Work Zone Merging Areas Journal of Advanced Transportation, March 2012 http://www.workzonesafety.org/research/record/21466

*Work Zone Road User Costs—Concepts and Applications*, December 2011 http://ops.fhwa.dot.gov/wz/resources/publications/fhwahop12005/index.htm

WZ Variable Speed Limit Systems: Effectiveness and System Design Issues
Virginia Transportation Research Council, March 2010
http://www.virginiadot.org/vtrc/main/online\_reports/pdf/10-r20.pdf

# Work Zone Design and Operation Enhancements

Oregon DOT, March 2010

Assessing

Safety ....

http://www.oregon.gov/ODOT/TD/TP\_RES/docs/Reports/2010/WorkZoneReport\_Web.pdf

Improving Work Zone Safety: Why You Should Consider Water Ballast Traffic Control Devices (Alternatives to temporary concrete barrier for WZ traffic control.) Water Barrier Manufacturers Association, 2010

http://www.workzonesafety.org/files/documents/database\_documents/Publication10227.pdf

# Accommodating Pedestrians with Visual Impairments In and Around WZs

Transportation Research Record, January 2009

http://pubsindex.trb.org/view.aspx?id=881898

# Comparison of Automated Speed Enforcement & Police Presence in Work Zones

Transportation Research Board, January 2009

 $http://www.workzonesafety.org/files/documents/database\_documents/Publication 9936.pdf$ 

Construction Project Administration and Management for Mitigating Work Zone Crashes and Fatalities: An Integrated Risk Management Model

Iowa State University, Institute for Transportation, October 2009

 $http://www.intrans.iastate.edu/reports/Shane\_Work-Zone-Crashes\_FINAL.pdf$ 

# High Visibility Salety Apparel

Compliant high visibility safety apparel shall be worn by all workers on all public and/or private streets and roads that the public has access to. Garments complying with the standard are now required by the Federal Highway Administration for anyone working in a right-of-way or highway workzone.



#### 2009 MUTCD http://mutcd.fhwa.dot.gov/

Flagger Control - Section 6E.02 High-Visibility Safety Apparel Pedestrian and Worker Safety - Section 6D.03 Worker Safety Considerations

#### https://www.safetyequipment.org/c/std107-2010.cfm

ANSI/ISEA 107-2010: American National Standard for High Visibility Safety Apparel and Headwear (International Safety Equipment Association, 2010) This standard provides a uniform, authoritative guide for the design, performance specifications, and use of high-visibility and reflective apparel including vests, jackets, bib/jumpsuit coveralls, trousers and harnesses. A revision to the standard in 2004 added criteria for headwear, and introduced test report forms.

## http://www.safetyequipment.org/c/std207-2011.cfm

ANSI/ISEA 207-2011: American National Standard for High Visibility Public Safety Vests (International Safety Equipment Association, 2011)
Authoritative document for the design, performance specifications, and use of high-visibility vests specifically worn by public employees. The standard includes basic requirements such as vest dimensions, color and materials performance.

# Tips for Compliant High Visibility Safety Apparel

- Choose material colors to contrast the worker to their environment.
  - Consider seasonal variations in landscape and foliage when choosing colors for worker apparel.
- Visibility can be effectively increased by wearing Class 3 high-visibility apparel
  - Class E trousers worn in combination with a Class 2 vest or tee shirt equals a Class 3 ensemble.
  - Increase worker visibility by wearing compliant high visibility arm/leg bands, caps/hats, or hard hats that add to delineation of the human shape.
  - Compliant short or long sleeved tee shirts (Class 2 and/or Class 3)
- 12 Inspect regularly to ensure color hasn't faded or Retroreflectivity isn't lost.

# Nighttime Work Zone Operations

High traffic volumes on many roadways make it difficult to perform work zone operations in or near travel lanes during the day because of the disruption in traffic flow and the risk to workers and traveling public. As a result, all types of road work are increasingly scheduled for off-peak periods, particularly at night, to alleviate the problems of working in traffic. Night operations change the work environment.

#### **Considerations on the worksite:**

- Poor visibility for both motorists and workers
- Communication between shifts
- Impaired or drowsy drivers

## Physical and social disruptions:

- Sleep disruption
- Risk of injury from drowsiness
- Impaired family/social relationships



# Online Publications for Nighttime Operations

Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance and Construction, TRB's NCHRP Report 476, 2002 http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\_rpt\_476.pdf

*Traffic Control Handbook for Mobile Operations at Night,* FHWA-SA-03-026, August 2003, http://www.dot.state.il.us/blr/l023.pdf

Training Program for Night Road Work to Improve Safety and Operations, NCHRP Research Results Digest 293, November 2004 http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\_rrd\_293.pdf

Additional resources available on FHWA's **Night Work/Off Peak Work** site. http://ops.fhwa.dot.gov/wz/construction/night\_offpeak\_wrk.htm

- Deciding When to Use Night Work
- Improving Work Zone Traffic Control at Night
- Illumination Guidelines
- Example Specifications for Nighttime Operations

# Work Zone Safety LTAP Lending Library

Colorado LTAP maintains a comprehensive

transportation lending library. The library service includes

a variety of instructional videos & publications. All media is available to agencies for checkout FREE for a 2-week period. All materials can be searched and ordered online through the Colorado LTAP website at: http://ltap.colorado.edu/ltaplibrary/

#### CDs for Loan

CD BTC

CD BTCSDA

Basic Traffic Control for Utility Operation

Basic Traffic Control for Short Duration Activities

CD DEWZAP

CD GWZTC

Guidelines: Work Zone Awareness Program

Guidelines: Work Zone Traffic Control

CD IWZBF Introduction To Work Zone Basics & Flagging CD WZS Work Zone Safety: Beyond Cones and Barrels

CD WZSFND WZ Safety for New Drivers: Turning Point: Tool Kit for Trainers

CD WZSRMO Work Zone Safety for Roadway Maintenance Operations

CD WZTLEC Work Zone Training Law Enforcement Course

CD WZO Work Zone Operations: Improving Mobility and Safety on Both

Sides of The Barrel; Best Practices Guidebook

## **Videos for Loan**

DVD50 ARB Avoiding Runovers and Backovers
DVD50 AWS The Abc's Of Work Zone Safety

DVD50 RCS Road Crew Safety: Safe Practices for Road Construction/Paving Crews

V40 TCMW
V50 BDIWZ
Barrier Delineation In Work Zones: Arrow Panels
V50 BDWZ
Barrier Delineation In Work Zones: Well-defined Path
V50 HWZS
Highway Work Zone Safety: One-step From Death
V50 ITZ
In the Zone: WZ Awareness for Teen Drivers

V50 NTTC
V50 PS

Highway Work Zone Safety: Paving Safety

V50 QCMB Quick Change Movable Barriers: General Information
V50 RDS Highway Work Zone Safety: Removal & Demolition Safety

V50 SMS Safety Made Simple: Abc's Of Work Zone Safety V50 SS Highway Work Zone Safety: Surveying Safety

V50 TOL Thin Orange Line: Construction Inspectors in Work Zones

V50 USWZ Work Zone Safety: Utility Safety In Work Zones

V50 WZSC Work Zone Safety For Construction & Utility Employees

V50 WZSRL Work Zone Safety For Rural Local Agencies

V50 LTUHE Hwy WZ Safety: Loading, Transporting, & Unloading Heavy Equipment

V50 MOMS Highway WZ Safety: Moving Operations & Maintenance Safety

V50 NWZTC Nighttime Workzone Traffic Control V50 TCTWZ Traffic Control Thru Work Zones

14 V20 WZTL Work Zone Tort Liability V50 LCL Life In The Closed Lane

#### **Free Materials**

FCD DEWZAP Driver Education Work Zone Awareness Program, CD

F50 KFP Know Flagging - Poster

F50 BSHWZ Building Safer Highway Work Zones: Measures To Prevent Worker

Injuries From Vehicles And Equipment

F50 BTC Basic Traffic Control for Utility Operations: Guide To Temporary

Control For Utility Operations

F50 CDOTGU CDOT Guidelines for the Use of Positive Protection In Work Zones

F50 CWZI Considering WZ Impacts: Planning for Safety, Mobility & Constructability

F50 FTM Colorado Flaggers Training Manual

F50 EIAPO Everyone Is A Pedestrian - A Safe Path Thru Work Zones

F50 GDTI Guidelines for Developing Traffic Incident Management Plans for WZ

F50 GLEP Guide for Law Enforcement Personnel In Work Zones

F40 MNCNVON Mitigation of Nighttime Construction Noise, Vibrations, Other Nuisances

F50 NZ Don't Hang Out In The No-Zone, brochure
F50 PPT Work Zone Positive Protection Toolbox

F50 QGT Quality Guidelines for Temporary Traffic Control Devices and Features

F50 SD Shorter Duration, Safer Work Zones, Satisfied Travelers

## **Publications for Loan**

B 5 WZTLEC Safe And Effective Use of Law Enforcement Personnel in Work Zones:

Training Course Instructor's Kit

40 FRCA Full Road Closure for WZ Operations: Using Weekend Closures to Expedite

Road Rehabilitation and Minimize Impacts on Motorists and Road Builders

40 FRCB Full Road Closure for Work Zone Operations: Reducing Impact of

Construction During Rehabilitation of a Major Interstate Highway

40 FRCC Full Road Closure for WZ Operations: Accelerating Construction and

Reducing Crashes During the Rehabilitation of a Major Downtown Route

15

50 DITCPHWZ Development and Implementation of Traffic Control Plans for Hwy WZ 50 GRW NCHRP 500 Volume 17: A Guide for Reducing Work Zone Collisions

50 FM Utility Work Zone Traffic Control Field Manual

50 ITM Installing and Maintaining Traffic Control Devices

50 PIGC Project Inspector's Guide for the Work Zone

50 RGWZ Reference Guide to Work Zone Traffic Control

50 MWZS Work Zone Safety: Devices Development and Evaluation

50 GUPP Guidelines on Use of Positive Protection in Temporary Traffic Control Zones

50 FGF Field Guide for The Use And Placement Of Shadow Vehicles In WZ

50 IWZS Integrated Work Zone Systems for Improving Travel Conditions And Safety

50 WZS Work Zone Safety and Pavement Markings and Materials

50 WZSI Work Zone Safety Inspection: Participant Notebook

50 WZSI 96 Work Zone Safety Inspection: Instructor's Guide 55 ITSDL ITS in Work Zones: Dynamic Lane Merge System

55 ITSRT ITS in Work Zones: Real-time Work Zone Traffic Control

55 ITSTT ITS in Work Zones: Work Zone Travel Time System

55 ITSWZ Intelligent Transportation Systems in Work Zones

# Work Zone Safety LTAP En Español

Available at:

http://ltap.colorado.edu/ltaplibrary



## **Videos for Loan**

V40 TCMW Traffic Control For Maintenance Work Zone

V50 ABC Abc's of Work Zone Safety – Spanish V50 FTRT Flagging Techniques for Roadway Traffic

DVD50 AWS The Abc's Of Work Zone Safety

DVD50 DFS Para Banderear A La Defensiva: Guia Para Sobrevivir

DVD50 DTD Driven To Distraction 1&2

DVD50 DF Para Banderear a la Defensiva: Una Guia Para Sobrevivientes

(Defensive Flagging: A Survivor's Guide)

## **Publications for Loan**

50 FTM Manual De Entrenamiento Para Bandereros (Flagger Reference Guide)

50 PEP Practicas Efectivas Para El Control De Trafico En Zonas De Trabajo

En Las Carreteras, Calles Y Puentes (Effective Traffic Control

Practices In Work Zones of Highways, Streets and Bridges)

50 RGWZ s Guía De Referencia Para Controlar El Tráfico En Zonas De Obras

(Reference Guide To Work Zone Traffic Control)

100 CS Construction Spanish / Español de la Construcción

## **Free Materials**

F50 BSSE Basic Spanish for Safety & Emergencies Brochure

F50 CWZBPS Guia De Mejores Practicas De Seguridad En Las Zonas De Trabajo

En Colorado (Work Zone Best Practices Safety Guide)

F50 FHS ATSSA's Manual Del Abanderado (Flagging Handbook)

F50 FTMS CDOT Manual De Entrenamiento Para Bandereros (Flagger

Reference Guide)

F50 PEP Practicas Efectivas Para El Control De Trafico En Zonas De

Trabajo En Las Carreteras, Calles Y Puentes

FDVD50 DF Teex Defensive Flagging: A Survivor's Guide

F50 RGWZ s Guía De Referencia Para Controlar El Tráfico En Zonas De Obras

16 (Reference Guide To Work Zone Traffic Control)

# **Spanish Materials Online**

La Prevención de Lesiones y Muerte del Trabajador Como Consecuencia de Choques Automovilísticos Relacionados con el Tráfico (Preventing Worker Injuries and Deaths from Traffic-Related Motor Vehicle Crashes)

www.cdc.gov/spanish/niosh/docs/98-142sp.html

Accidentes Viales Relacionados con el Trabajo Estrategias de Prevención para los Empleadores (Work-Related Roadway Crash Prevention Strategies for Employers) http://www.cdc.gov/spanish/niosh/docs/2004136Sp.htm

Reduzca el Riesgo de una Fatalidad en la Zona de Trabajo en una Carretera o Autopista (Reduce the Risk of a Roadway Work Zone Fatality)

http://www.landcarenetwork.org/riskmgmt/ssense/safetysenseaug07SP.pdf

# Recursos Adicionales en Español

http://www.workzonesafety.org/foreign\_language\_materials/spanish

La página electrónica nacional de Información sobre seguridad en las carreteras (Clearinghouse) proporciona información y vínculos electrónicos a otras páginas en un esfuerzo para facilitar la comunicación y el aprendizaje promoviendo la seguridad en zonas de trabajo y usuarios de carreteras de todo el mundo.

Manuales y Folletos tales como:

- Para un Paso Seguro a Través de Zonas de Trabajo "!No Olvide Las Indicaciones!"
- La Seguridad en las Zonas de Construcción de Carreterras: Una Introducción
- Para Banderear a la Defensiva: Una Guia Para Sobrevivientes
- El Manejar en Zonas de Construcción de Carreteras
- Equipo de Entrenamiento del Abanderado en Español
- Manual Oficial de OSHA para Seguridad en Construcción
- Frases Perfectas en Español para la Construcción
- Entrenando al Operador del Carro de la Elevación (TM) -- Paquete en Español para el Instructor
- Investigación de Accidentes





