



COLORADO
Department of
Transportation



Work Zone Safety Best Practices
Rocky Mountain Asphalt Conference & Equipment Show
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COLORADO

Department of
Transportation

Work Zone Safety Best Practices

Leadership ... from Everyone

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Asphalt Pavement
Building Success Through Leadership



CO L O R A D O

Department of
Transportation

Achieving Improved Safety in Work Zones

Customer Service

Leadership, Safety Culture

Policy, Legislation

Procedures, Guidelines

Data and Situation Analysis

Compliance Reviews

Techniques



Customer Service

Who's the customer?

What do they expect?

- Safety
- Limited Delays
- Credibility and Reliable information
- Completed project



WZ in alignment with these priorities?

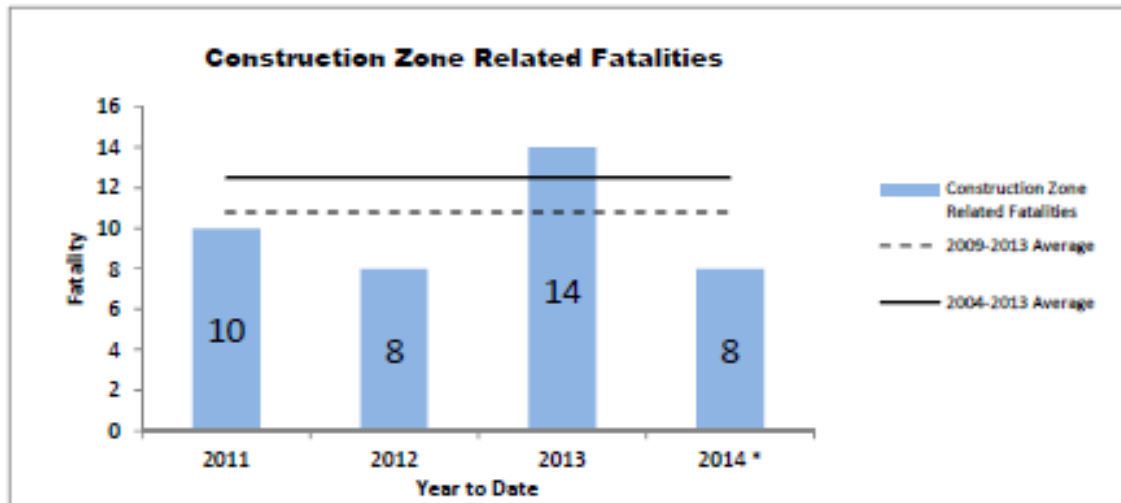
How do we deliver that?





Work Zone Safety Statistics

Year	Statewide Construction Zone Crashes					
	PDO	Injury Crashes	Injuries	Fatal Crashes	Fatalities	TOTAL Crashes
2009	933	81	104	10	11	1024
2010	825	80	100	8	11	913
2011	825	90	122	6	10	921
2012	877	90	117	6	8	973
2013	1212	103	133	8	14	1323





Work Zone Delay Statistics

WZ account for 10% of all congestion, 20% of non-recurring

Estimated delay impacts to Denver Metro:

- 3 million gallons of wasted fuel
- 7 million hours of total delay





Construction at CDOT

Increasing construction program, \$500M to \$900M program

New and revised programs: FASTER, RAMP, HSIP, Preservation, Asset Management

Impacts

- Safety, delays, risk of crashes, public inconvenience





What Can Be Done?

CDOT Recent Leadership Efforts:

- More conscientious and focused about our business
- Executive Director:
- Chief Engineer: Safety, Mobility, Preservation, Economic Vitality
- TSMO Director: Safety and Operations
- Initiatives: Cash Mgmt, Program Mgmt, Schedule Mgmt, Performance Measures Lead/Lag
- Guidelines: PD 14, SHSP, Statewide Operations Plan



CDOT and FHWA Leadership

WZSM FHWA Ruling and CDOT Guideline

FHWA Process Reviews - 2012, 2014, what are they telling us?

Annual Legislative Report on WZ Safety

CDOT WZ Improvement Steering Committee





Implementing WZ Safety

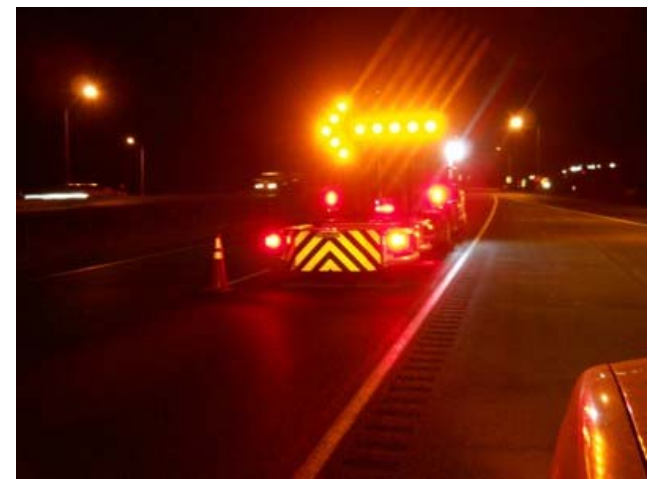
- Specifications and Standards
- Work Zone compliance reviews
- Data Analysis
- Safety Campaigns
- Legislation - Fines Doubled, Automated Enforcement





Best Practices / Techniques

- WZSM - TMP
- Lane closure policies
- Accelerated Delivery methods, trade off analysis
- Late merge
- Smart WZ - Smarter WZ
- Better, faster, current information that is applicable to situation
- Coordinated WZ
- Technologies
- WZ operations data collection
- Full-compliance striping
- Nighttime Lighting
- Effective and applicable speed reductions
- Connected Vehicles
- Cone Zone Law Enforcement
- Automated Enforcement

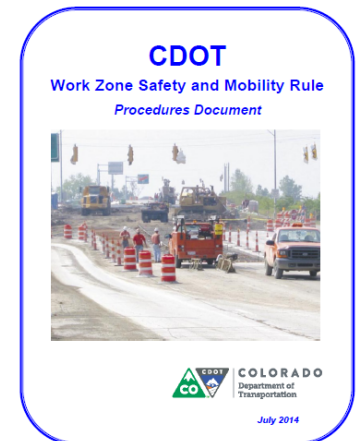




What Can You Do?

- Promote Safety Culture
- Demand the best WZ TC on your project
- Do your homework
- Review “CDOT’s Work Zone Safety and Mobility Rule: Procedures Document”
- Review other resources at:

<https://www.codot.gov/safety/traffic-safety>





Final Thoughts

Best practices in WZ safety is a mindset of everyone

Tools are available

Mandated - policies, standards, specifications, MUTCD

Chosen - best practices, innovations, customization

More cost? Is it worth it?





Conclusion and Thank You

Your Thoughts

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