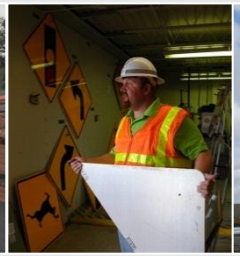
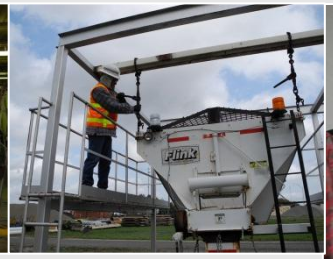



TxDOT'S SAFETY CULTURE: MISSION ZERO

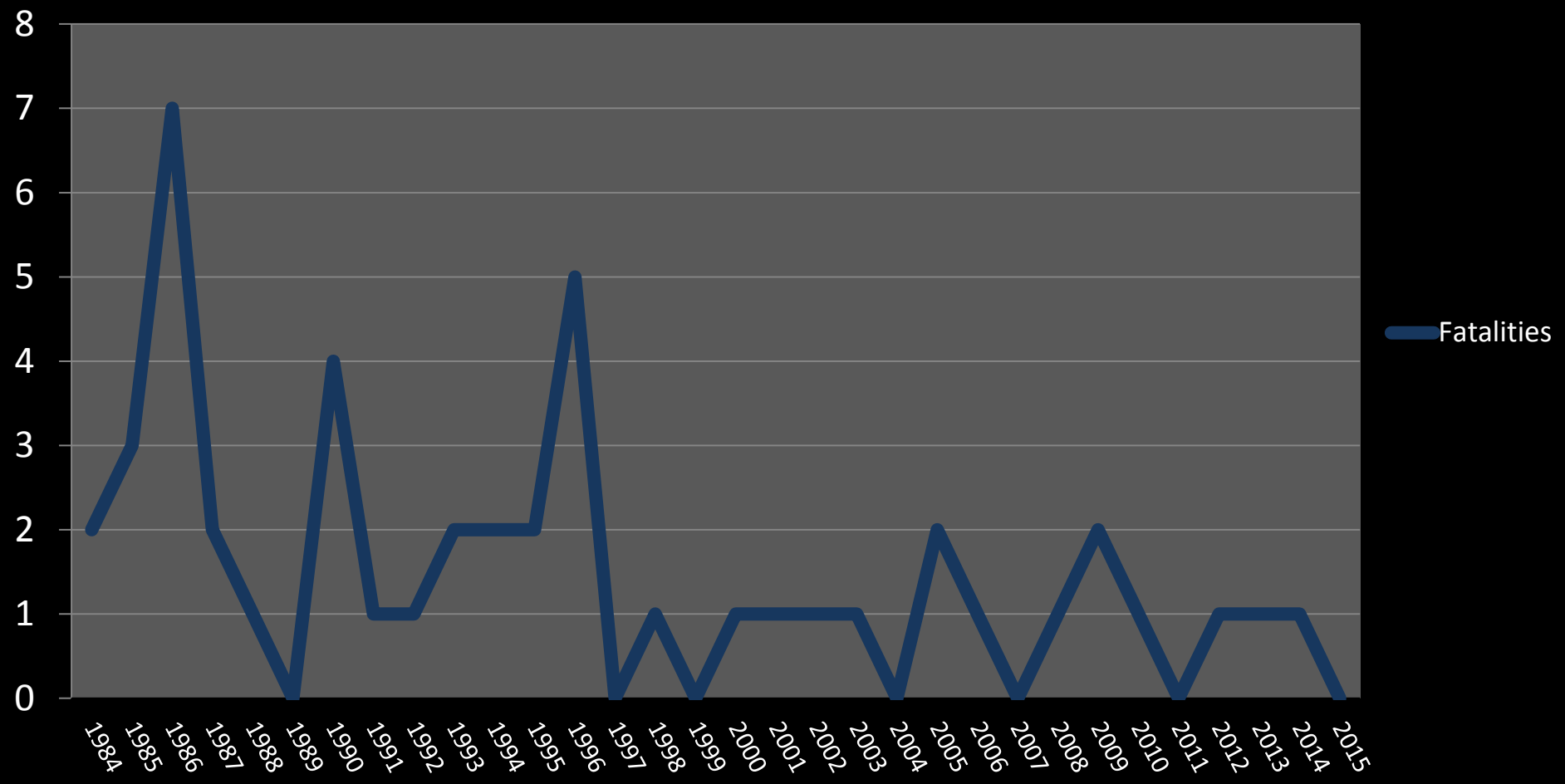
Jerral W. Wyer

Director, Occupational Safety Division

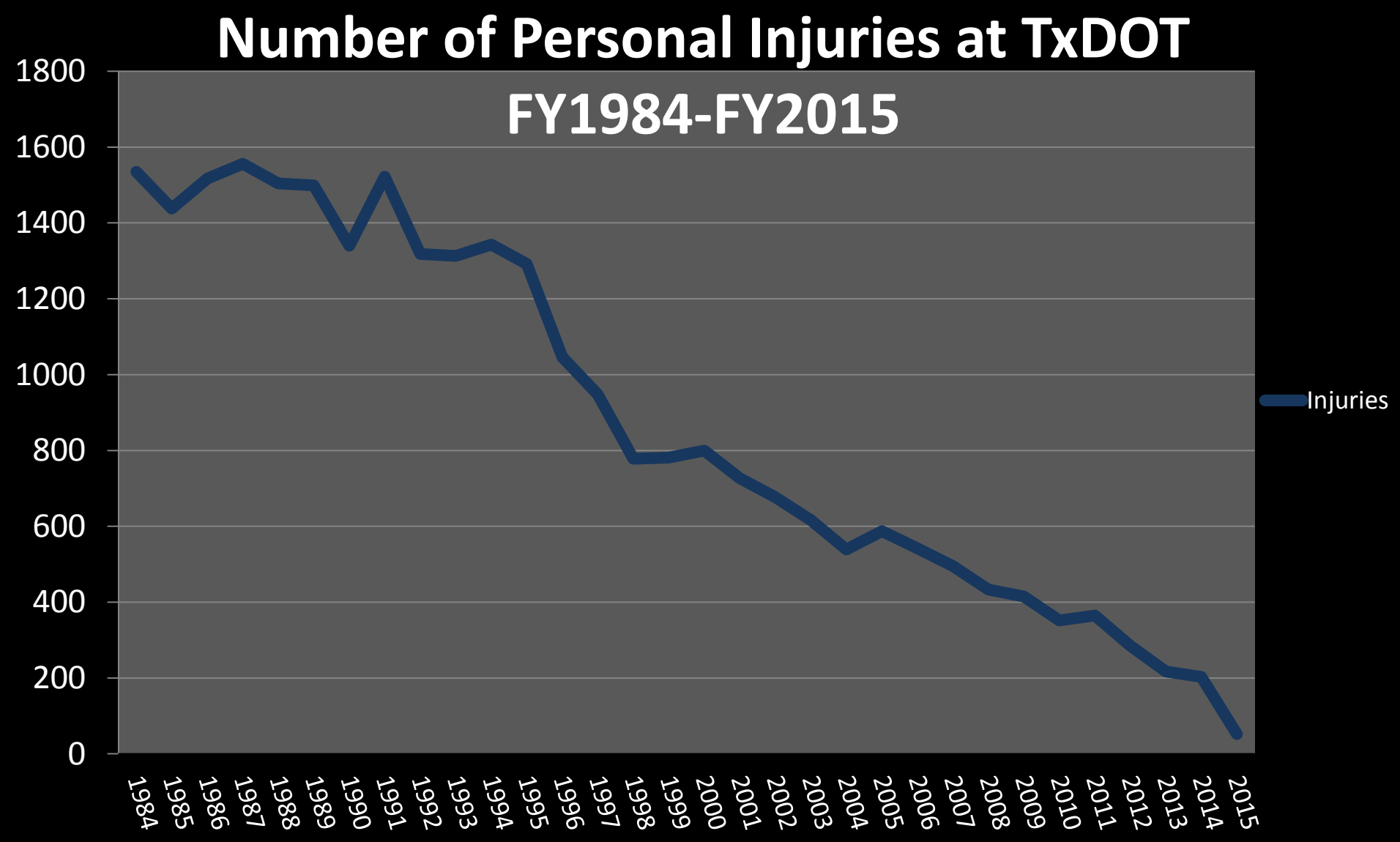
Safety: Mission

ZERO

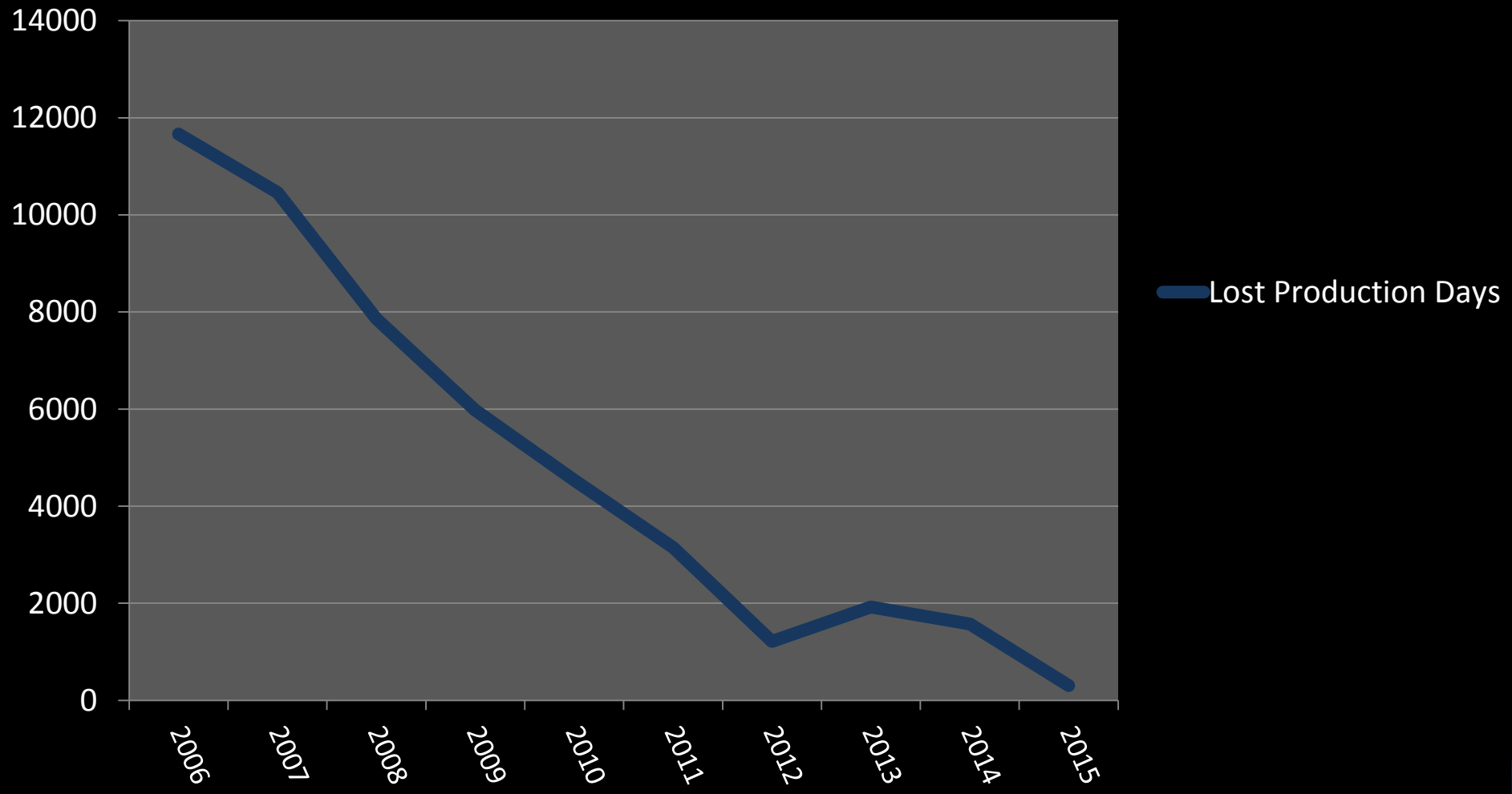
TxDOT Employee on the Job Fatalities FY1984-FY2015



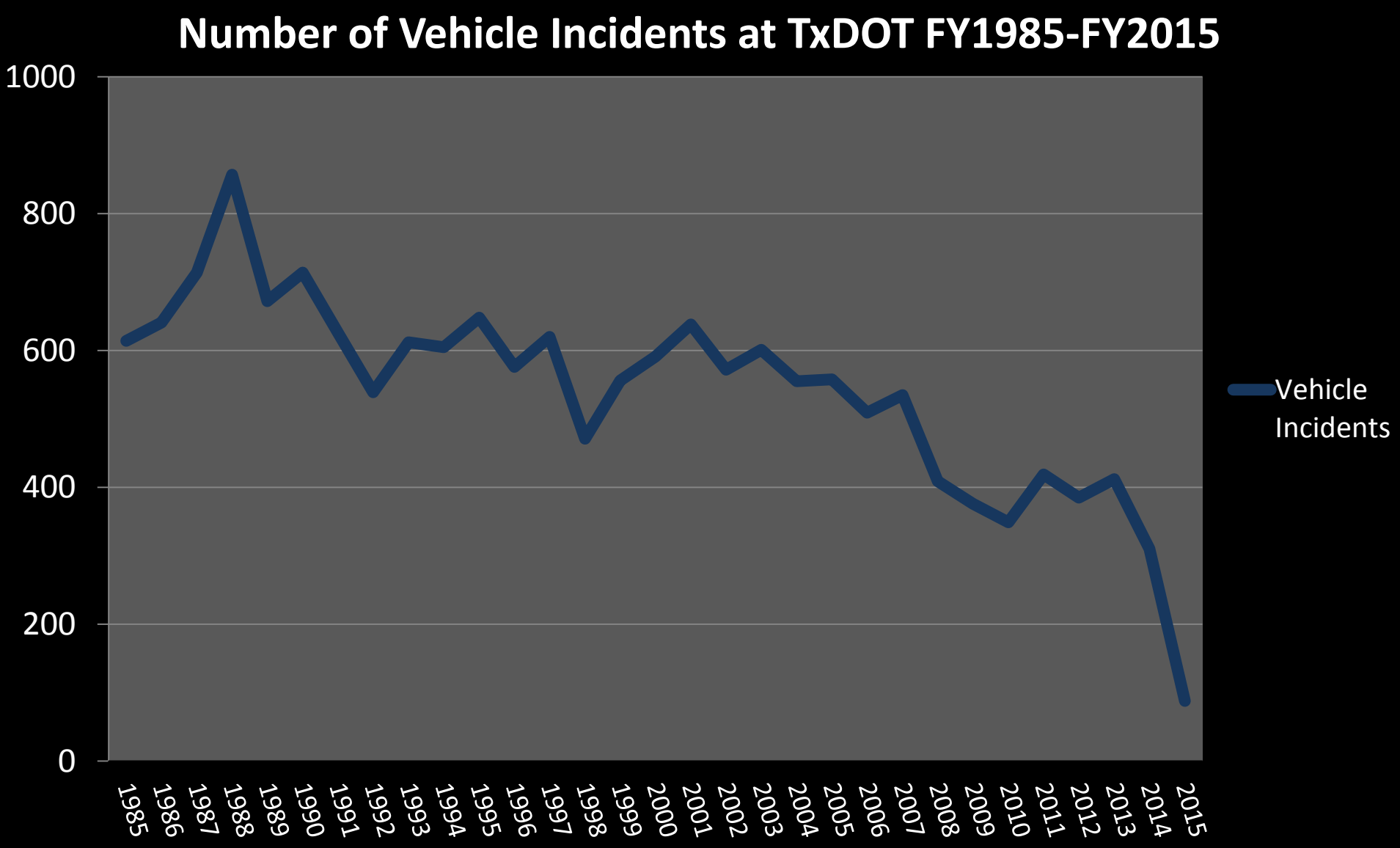
Safety: Mission ZERO



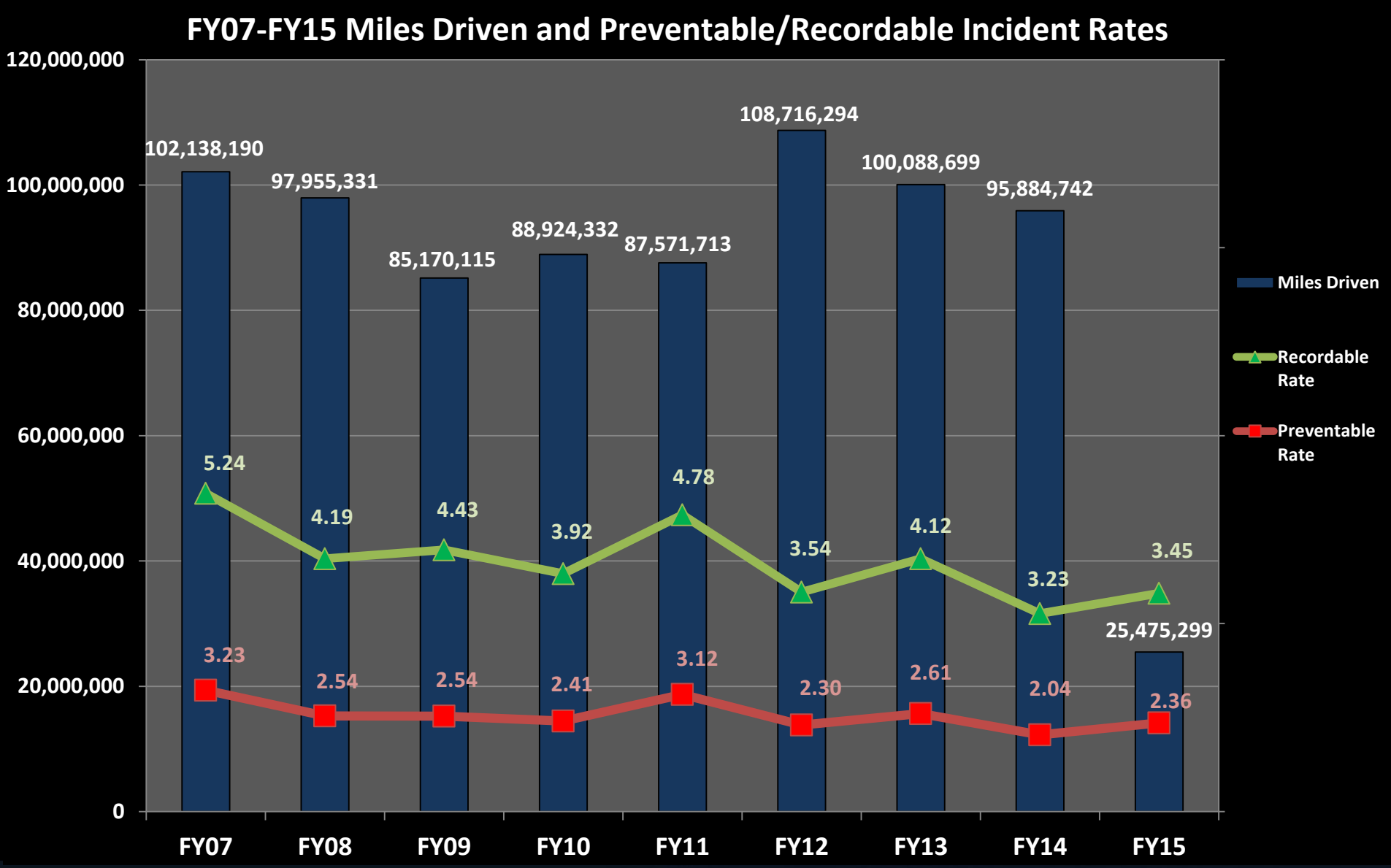
Number of Lost Days at TxDOT FY2006-FY2015



Safety: Mission ZERO



Safety: Mission ZERO



TxDOT Plan For Success

1. 0.29 Lost Time-Rate
2. Leadership
3. Collaboration Between Safety and Operations
4. Employee Involvement/Buy-In
5. Improved Accountability
6. Play of the Day – Recap
7. Recognition
8. Aggressive Return To Work
9. Mission Zero
10. Safety Process Follow Through

CONCERNS

Since TxDOT Started Keeping Records in 1938 . . .

We have suffered

52 Deaths Struck by 3rd Party in a Work Zone

15 Deaths Struck by Contractor Equipment

25 Deaths Stuck by TxDOT Equip

Back Against Traffic?

Safety: Mission ZERO

Traffic Control Retrieval-Employee Struck By Motorist

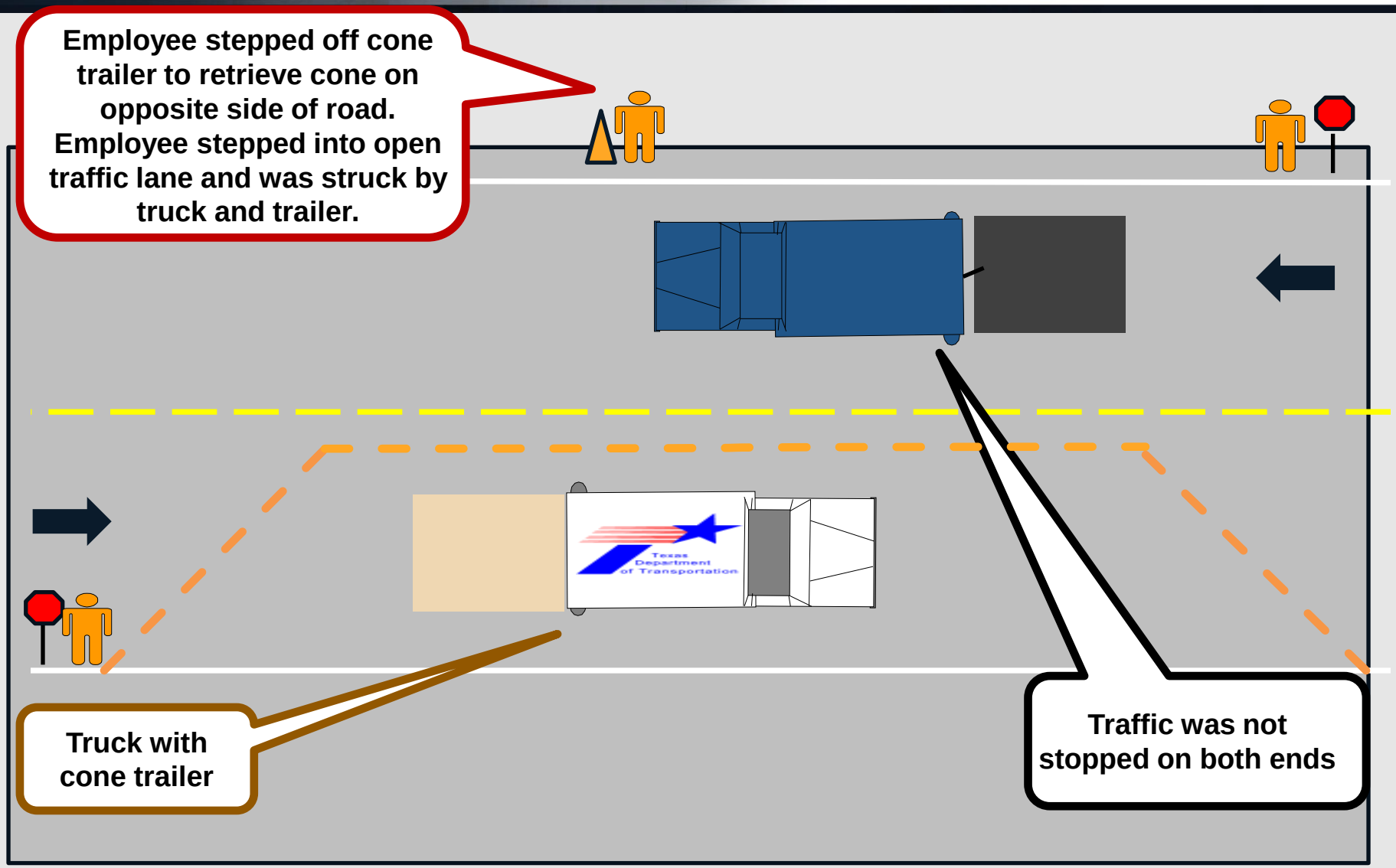
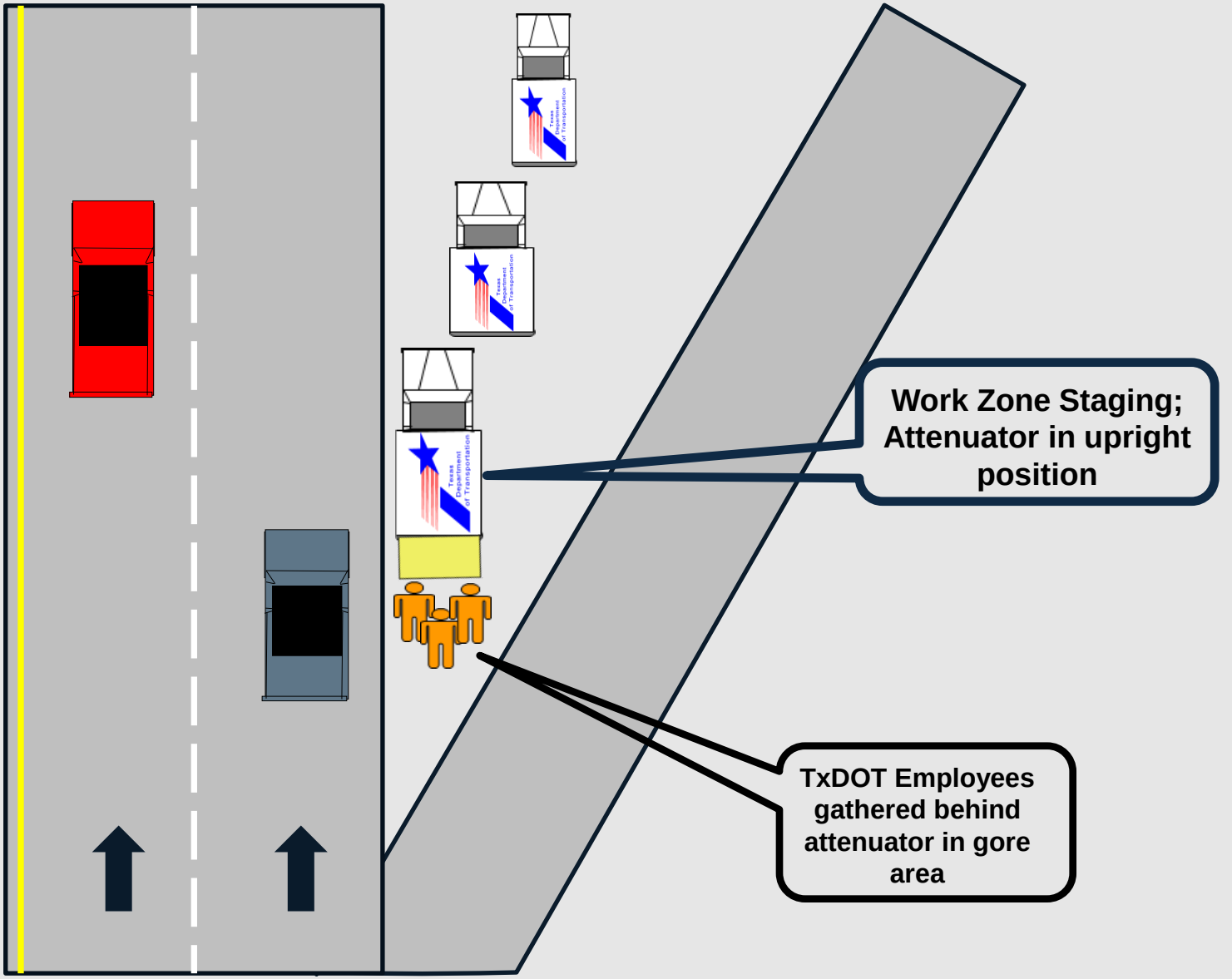


Diagram: Traffic Awareness-Staging in Gore Area



Workers on Foot Must:

- Situational Awareness
  - Keep a safe distance from traffic
  - Avoid turning your back to traffic
  - Stay behind protective barriers
- Look out for each other
  - Communicate with co-workers
- Wear high visibility clothing and headgear

Since TxDOT Started Keeping Records in 1938 . . .

We have suffered

19 Deaths while Flagging Traffic

Safety: Mission ZERO

Safety: Mission ZERO

Since TxDOT Started Keeping Records in 1938 . . .

We have suffered

22 Deaths from Equipment Roll Over

8 Deaths from Riding on Outside of Equipment

8 Deaths from Equipment Maintenance

Safety: Mission ZERO

Safety: Mission ZERO

"Safety Circle"

- Approach only from the front – about a 60º arc. Make eye contact with the operator

Safety: Mission ZERO

Safety: Mission ZERO

Since TxDOT Started Keeping Records in 1938 . . .

We have suffered

28 Deaths on the Shoulder or ROW

5 Deaths from Flying, Thrown or Falling Objects

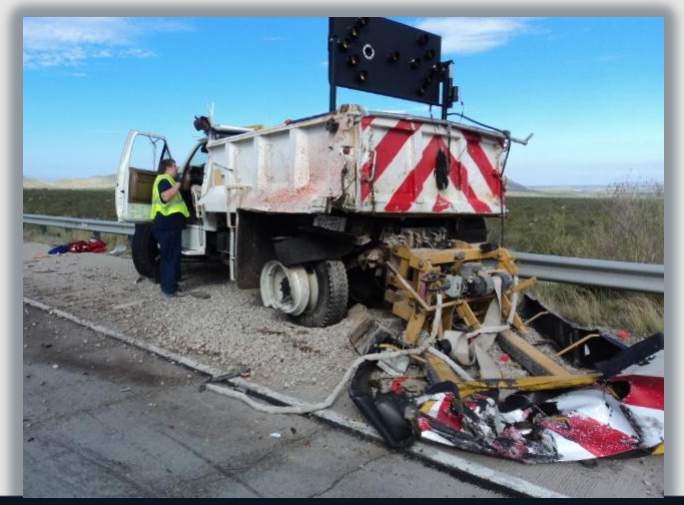
Safety: Mission ZERO

Work Near the Shoulder

Safety: Mission ZERO

Safety: Mission ZERO

TMAs Work!

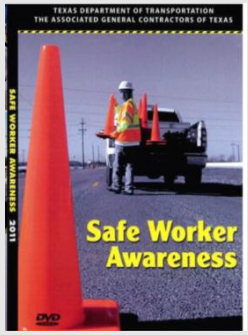


HOW CAN WE MAKE A POSITIVE IMPACT?

INFLUENCE BEHAVIOR AND DEVELOP A SAFETY CULTURE

AGC/TxDOT Joint Safety Task Force

- Meets monthly to discuss safety items relevant to both TxDOT and AGC members



- Jointly produces videos:
  - *Highway Construction Work Zone Hazards*
  - *Crane Hand Signals*
  - *Fall Protection*
  - *Safer Worker Awareness*
  - *Attention: Work Zone Ahead,* on distracted driving through work zones

Employee Recognition Programs

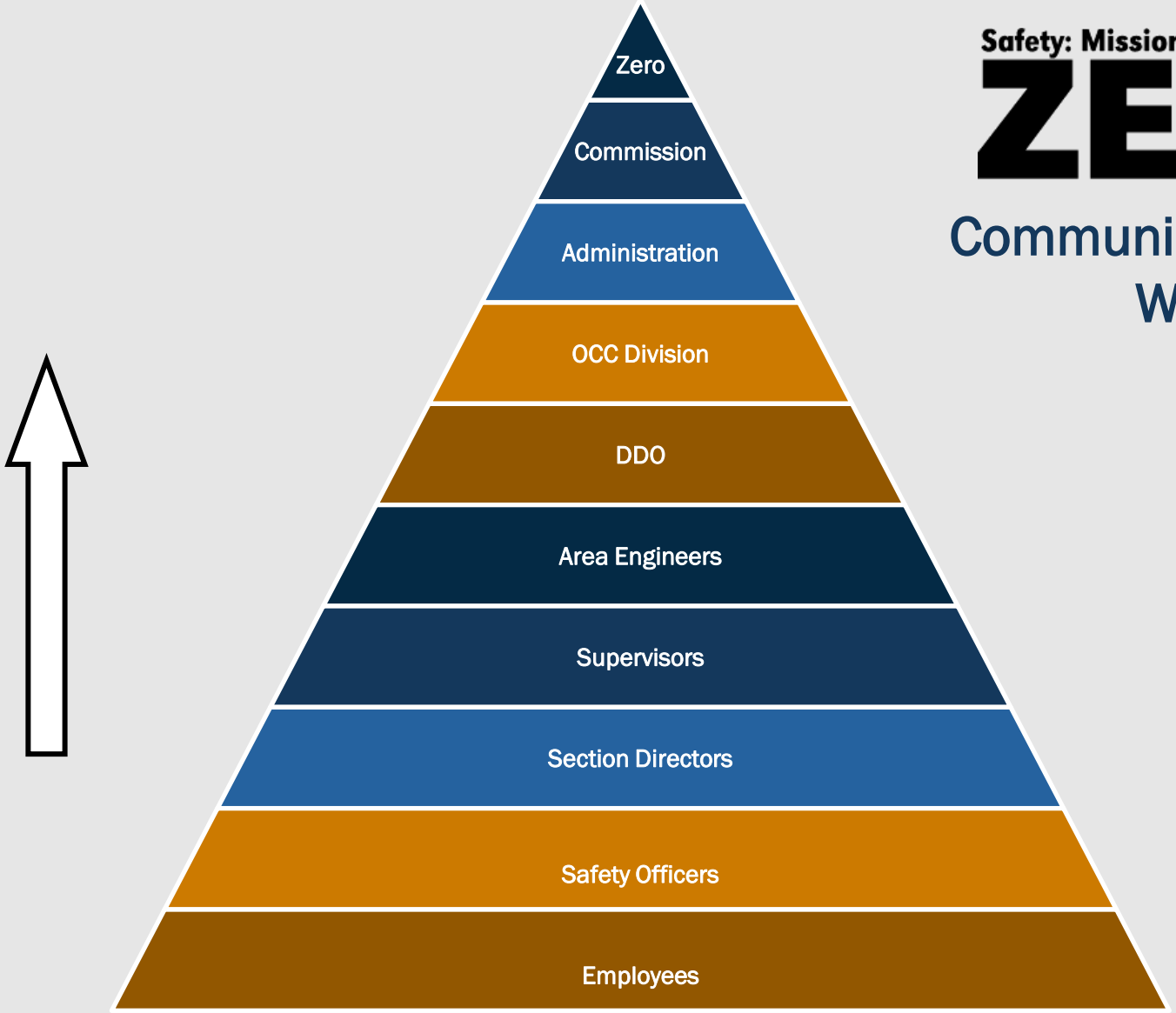
- Safety Awards Banquets
  - Opportunity to share a meal and celebrate group and individual accomplishments:
    - Safe Operator Award
    - No Injury Award
    - Group No Lost Time

Summer Awareness Campaign

- 123 Safe Days of Summer
  - May 1 thru August 31
    - Highlight top performers in franchise categories
      - Rural
      - Urban
      - Metro
    - Lowest combined incidence and recordable vehicle rates

Safety: Mission
ZERO
ZERO Injuries
Better to lose one minute in life...
than to lose one life in a minute.

Safety: Mission ZERO



Safety: Mission ZERO

Communication Both Ways

The Vision of Safety: Mission Zero

- Department Wide Commitment to:
  - Zero Injuries
  - Zero Lost-Time
  - Zero Preventable Incidents
  - Zero Fatalities
- Incorporate Safety into decision making at all levels of operations
- **Ultimate Goal:**
  - **Prevent that "One" fatality we statistically face every year…**

Safety: Mission ZERO

Details!

F Find and recognize hazards

O Openly search to correct and eliminate hazards

C Coordinate the use of resources

U Understand the risks at all times

S Safety will save your life

Communication

- PLAN
- COMMUNICATE
- FOLLOW-THROUGH

Plan Safety Into Every Job

- Play of The Day!
  - Discuss Traffic Control Plan
  - Discuss Internal Traffic Control Plan
- Recap – End of the Day
- Safety: Every Second Every Day!!

EVALUATE TXDOT'S DRIVER IMPROVEMENT PROGRAM

Defensive Driving

- Every three years
- All driving employees
- Classroom/Online

National Safety Council

Smith System of Driving

- 6,500 trained last three years
- Focus on building space cushion
- Reduced severity of incurred liability claims

5 Keys to Stay Alive

The Smith 5 Keys®

Key 1 Aim High In Steering®

Key 2 Get The Big Picture®

Key 3 Keep Your Eyes Moving®

Key 4 Leave Yourself An Out®

Key 5 Make Sure They See You®

© 2010 Smith System Driver Improvement Institute, Inc. All Rights Reserved SSS-941 REV 05.2011

Dump Truck Roadeo

Drive Along Observation

Training Employees to be Safer Drivers

- Encompasses 100 observations of various driving skills and methods.
- All drivers complete or review the Drive Along Form prior to the drive.
- Each driver session involves a one hour office discussion about numerous safe driving issues followed by an intensive two hour on-road assessment.
- Follow up within 30 days on identified improvement areas

Accountability

- Preventable Incident Disciplinary Plan
  - Three and Out
- Backing Policy
  - Walk Around
  - Spotters
  - Avoid backing
  - Charge back

Safety: Mission ZERO

HOW DO YOU MANAGE AND COMMUNICATE YOUR SAFETY AND HEALTH SYSTEM?

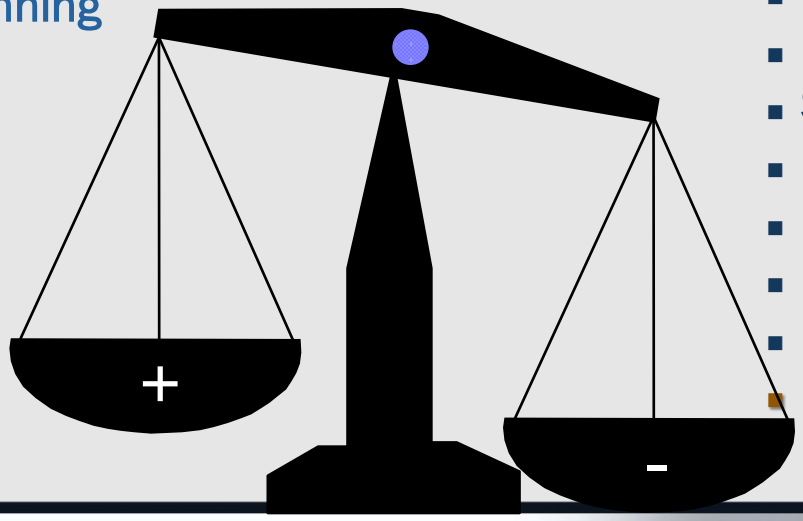
There is a role for everyone!

Working the System

- Leadership and Management Commitment
  - Priority setting
    - Safety can suggest, so can committees
  - Policy development
    - Mission statement/goals
  - Accountability
    - Pro-active discipline, and expectations
  - Employee involvement
  - Recognition by supervision
  - Budget

Safety Culture Balance

- Outstanding Performance
- Positive Environment
- Trust Between Employees
- Safety Interdependence
- Mgt. Demonstrates Strong Leadership Qualities
- Positive Emotional Bank Accounts
- Peer Review (BBS)
- Employee Involvement
- Clear Planning

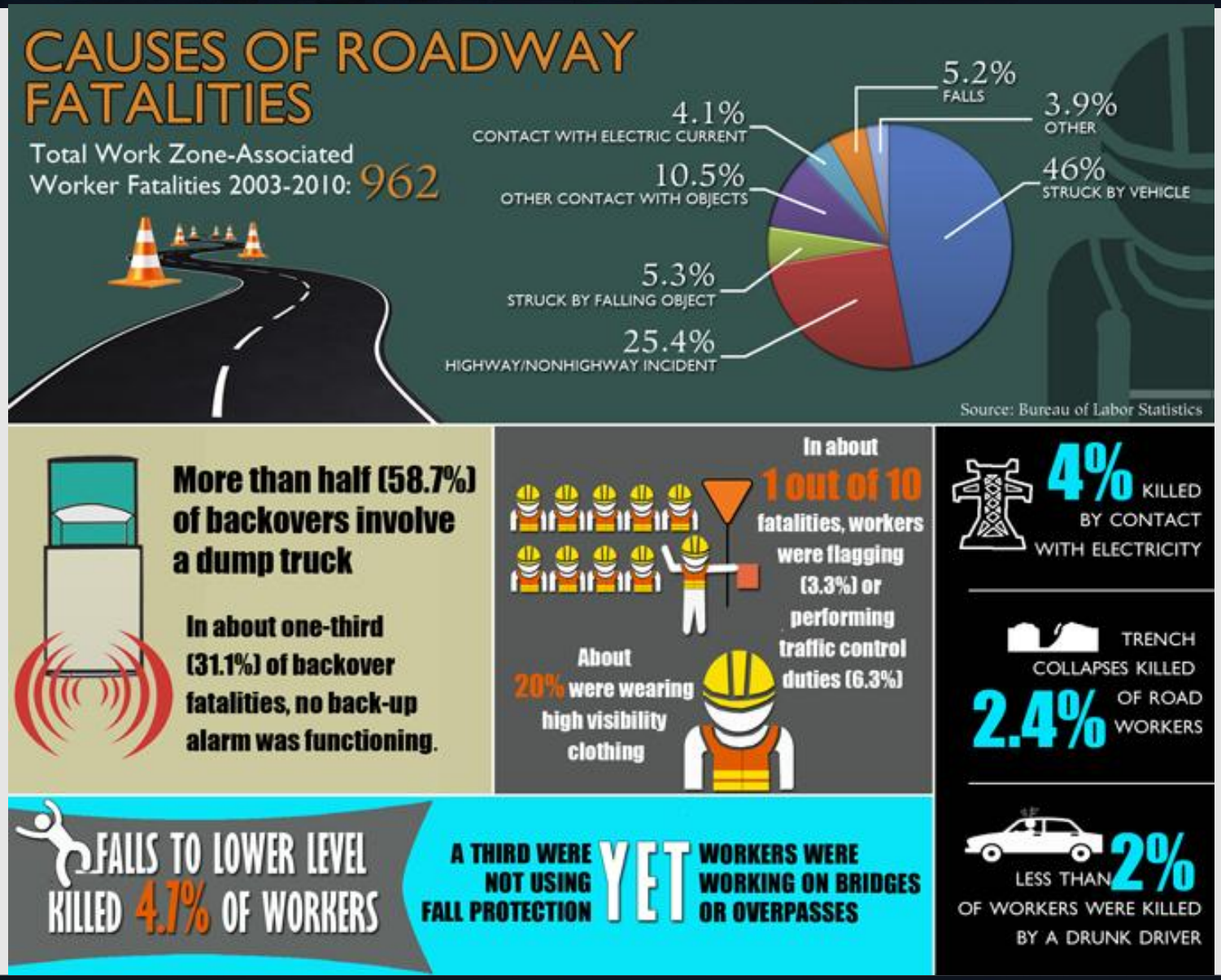


- Poor Performance
- Negative Environment
- Mistrust Between Employees
- Safety Dependence- Independence
- Poor Leadership Qualities
- Negative Emotional Bank Accounts
- Hide from Authority
- No Employee Involvement
- No Planning

Role of a Safety Professional

- Knowledge transfer: "Sell it, don't tell it"
  - Training
  - Coaching
  - Teach others "how to fish on their own"
- Be THE resource!!
- Communicate with All Levels of Management
- Provide Check and Balance
- Team Member!
- Must spend majority of their time in the field
- PASSION FOR THE JOB! Lead By Example!
- Listen and listen well!!!!!!!!!!!!!

Work Zone Intrusions Threaten Safety



Work Zone Intrusions Threaten Safety

Jan. 2014, Scott Schneider, LHSFNA Director of Occupational Safety & Health

Each year, about 100 road construction workers are killed on the job.

"Inside work zones, the most common fatalities are workers struck or backed over by dump trucks or other construction vehicles," says LIUNA General Secretary Treasurer and LHSFNA Labor Co-Chairman Armand E. Sabitoni, noting that many of these tragedies can be prevented through the better use of internal traffic controls, technology, planning and proper training.

"Unfortunately," Sabitoni continues, "the other major problem – intrusions, motorists crashing into work zones and hitting workers – is a lot harder to control."

Temporary Rumble Strips

Lane closures on conventional highways with posted speed limit of 75 mph or less

Automated Flagging Assistance Devices (AFADs)

<u>Type 1</u>

STOP/SLOW

<u>Type 2</u> (Right)

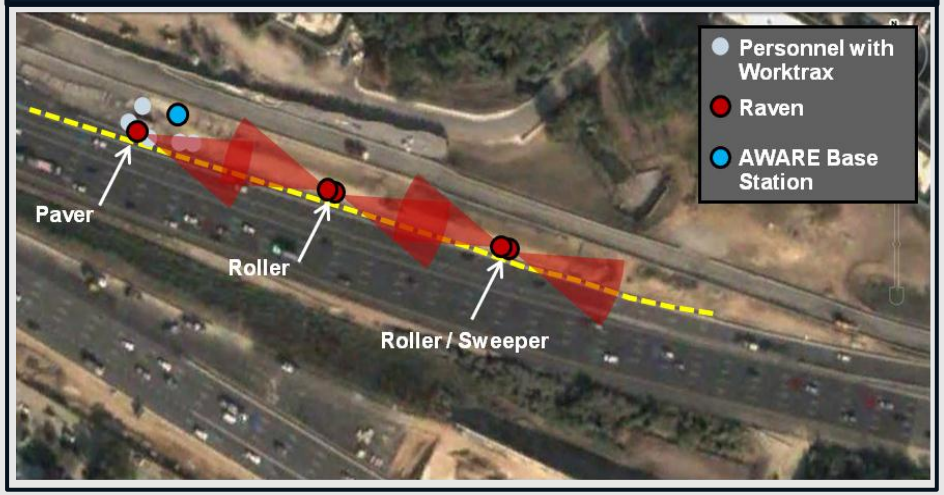
Red/Yellow lens

Both types required gate arm per TxDOT Standard TCP (1-6) – 12

Piloting: AWARE System

AWARE

- Combined technologies:
  - Advanced RADAR
  - Situational Awareness (
  - Threat deterrent



Technology Breakdown:

1. Advanced RADAR)

2. Situational Awareness

3. Threat Deterrent (Sirens, Lights)

We Remember...

Just One…

It takes one minute to write a safety rule
It takes one hour to hold a safety meeting
It takes one day to hold a safety class
It takes one month to put a plan into operation
It takes one year to win a safety award
It takes one lifetime to make a safe worker
It takes one second to destroy it all with…

One Incident

BULLDGS
12

Discussion

QUESTIONS?