

# Improving Transportation Safety in the Permian Basin – SH 302 Pilot Signing Program

Jim Cline, P.E.
Sr. Research Engineer
June 2020

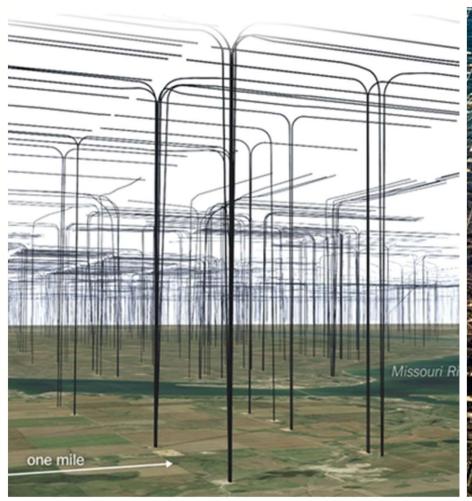
### **Agenda for Today**

- Background for approaching safety challenges
- Review of Permian Basin Safety Data
- SH 302 Signing Pilot Program
- Request for assistance in evaluating success

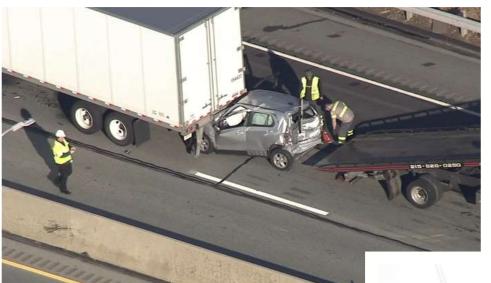
### **Key Take-Aways**

- Transportation safety fundamentals remain important. Watch for the normalization of deviance.
- Continue to reduce risk in tough times Do not let temporarily lower volumes mask problems. Use the data.
- A low-tech solution has been implemented on SH 302 to help address rear end collisions Incorporate into your operations.
- Help us evaluate the pilot program in partnership with the PRSC.
- Not a competition between safety and the bottom line in tough times. Safe operations will improve the bottom line.



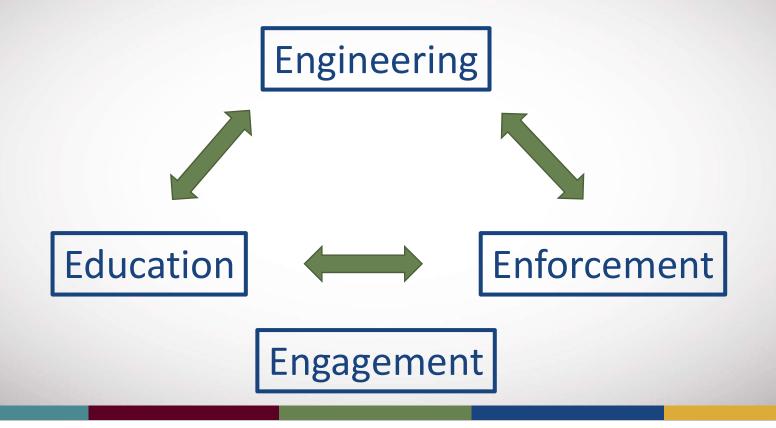








### **Solving Transportation Safety Challenges**



## **Exposure vs. Risk**

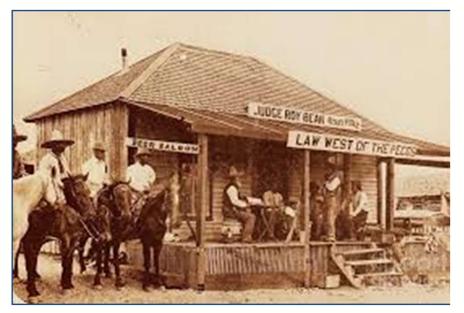


Exposure = # of Soldiers



Risk (Protection)







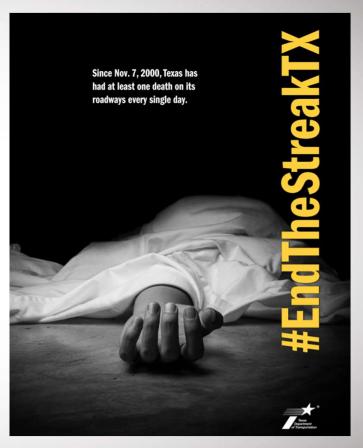
## Normalization of Deviance

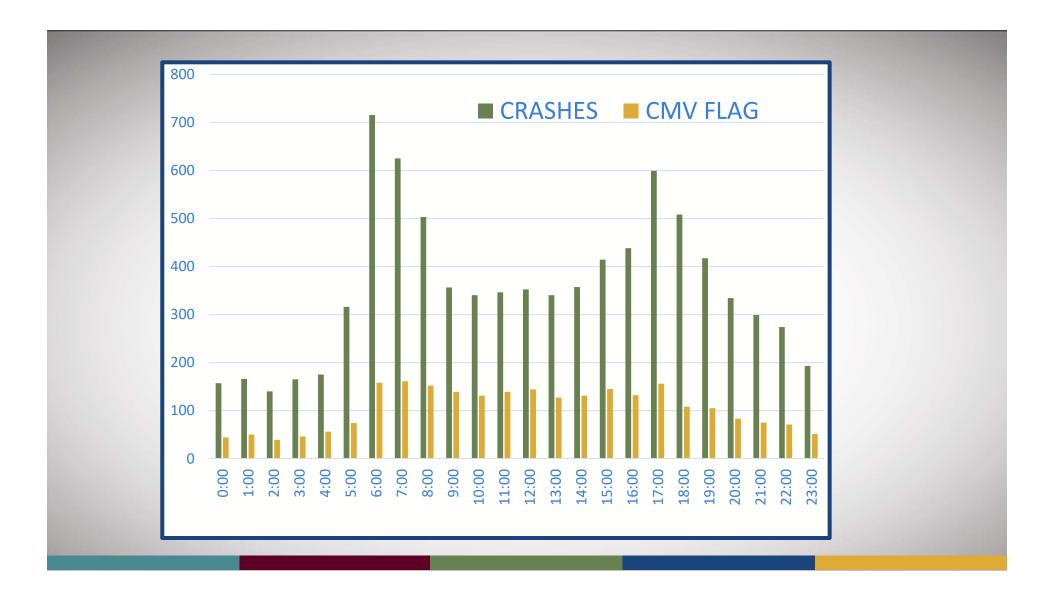
• "The gradual process through which unacceptable practice or standards become treated as acceptable. As deviant behavior is repeated without catastrophic results, it becomes the social norm for the organization."

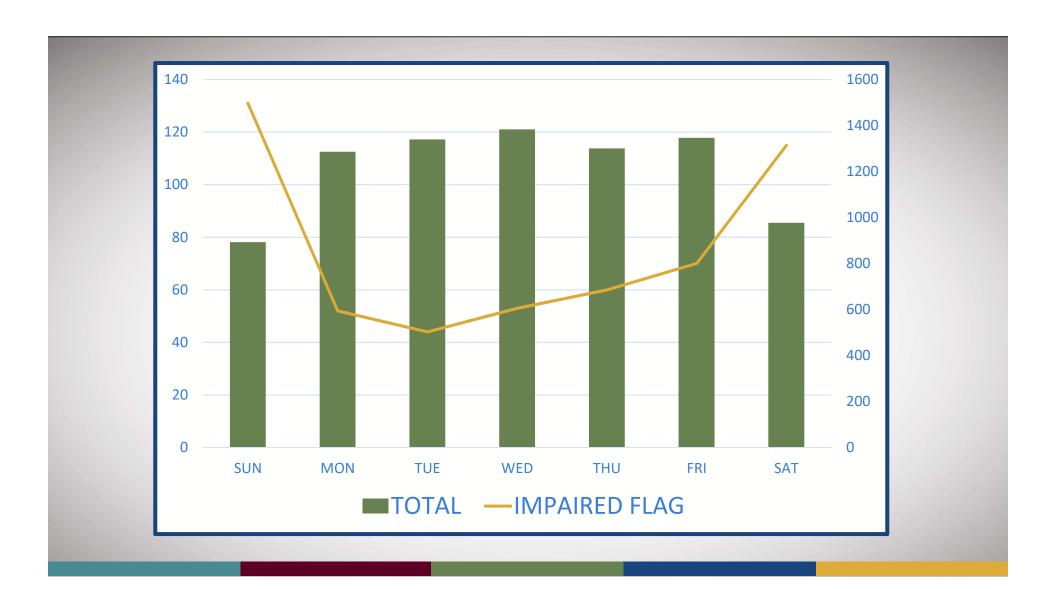
### **TxDOT Focus on Safety**

At least one highway fatality each Day since 11/7/2000.





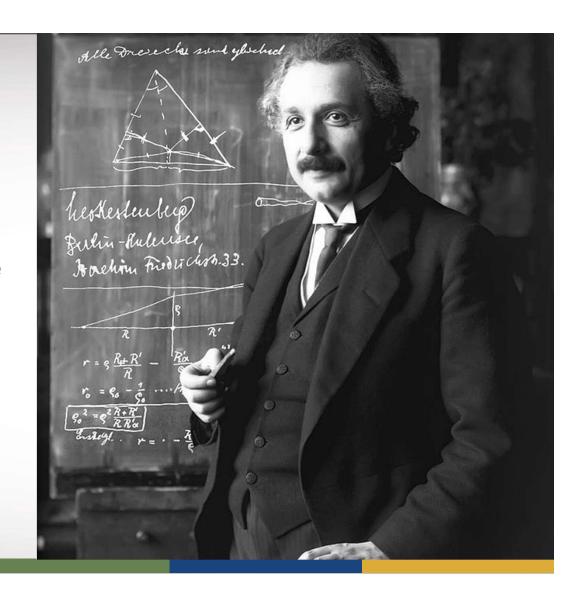




## Crashes Rear-End. Single-Veh. Other Multi-Veh. ■ Single Veh. ■ Multi-Veh. ■ Rear End

## Addressing Rear End Collision Problem

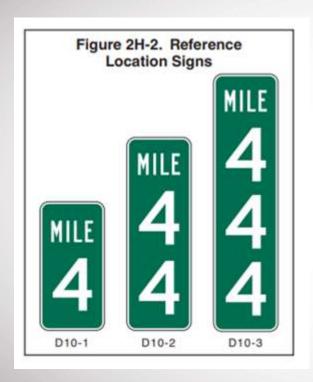
- TxDOT is building many needed roadway improvements.
- Is there something else we can do that is not cost prohibitive and simple to implement?
- Maybe back to basics on why vehicles are stopping/slowing in the road?



# **Access Management Findings/Recommendations**

- 1. Existing TxDOT Policy provides great flexibility
- 2. Improve access points Implement the hybrid driveway design that accommodates the range of larger vehicles (WB-67).
- 3. Improve spacing/interaction of access points –current practice supports spacing of one mile.
- 4. Pursue combining driveways.
- 5. Provide provisions for turning movements (TWLTL/Left Turn Lanes, Right Turn Lanes/Full Width Shoulders)
- 6. Add Mile Markers/Standardized Site Signing to aid in navigation

### Mile Markers/Driveway Signing





Note: Driveway signs will reference mile marker signs.

Example "Drive 218.3"

### Pilot Project Limits – SH 302: Kermit to Mentone



### Improving Navigation to Reduce Unnecessary Slow Speeds and Stopping

- Driver Distraction
- Cell Phone Rules/Coverage Issues
- Current lease/rig signs small, difficult to read
- Mile Markers (and driveway signs later) provide a concise means for directions.
- "Turn onto the lease road on the north side of SH 302 at mile marker 218.3"



### Request for Assistance

- Tell your Team
- Get their feedback help us find out if it is helpful
- Participate in the PRSC initiative
- Be open to sharing safe IVMS data to quantify the benefits

### **Key Take-Aways**

- Transportation safety fundamentals remain important. Watch for the normalization of deviance.
- Continue to reduce risk in tough times Do not let temporarily lower volumes mask problems. Use the data.
- A low-tech solution has been implemented on SH 302 to help address rear end collisions Incorporate into your operations.
- Help us evaluate the pilot program in partnership with the PRSC.
- Not a competition between safety and the bottom line in tough times. Safe operations will improve the bottom line.

### **Questions?**



#### Jim Cline, P.E.

Senior Research Engineer

<u>J-Cline@tti.tamu.edu</u>

972-994-2216