



SAFE AND CONNECTED



NEVADA TRANSPORTATION CONFERENCE

**May 2-3, 2017
Reno, Nevada**





Smart Work Zones



Denise Inda
Nevada Department of Transportation





WORK ZONE SAFETY



- ◆ 669 Work Zone Fatalities
- ◆ 2% of Total Fatalities
- ◆ WZ Fatalities Increasing



WORK ZONE MOBILITY

- ◆ 24% Non-recurring Freeway Delay involves Work Zones
- ◆ 10% Congestion caused by Work Zones





TECHNOLOGY AS A WORK ZONE STRATEGY





TECHNOLOGY AS A WORK ZONE STRATEGY



- ◆ Real-time Traveler Info
- ◆ Automated Enforcement
- ◆ Entering/Exiting Construction Vehicle Notification
- ◆ Queue Warning







TECHNOLOGY AS A WORK ZONE STRATEGY



- ◆ Performance Measurement
- ◆ Dynamic Lane Merge
- ◆ Variable Speed Limits
- ◆ Incident Management



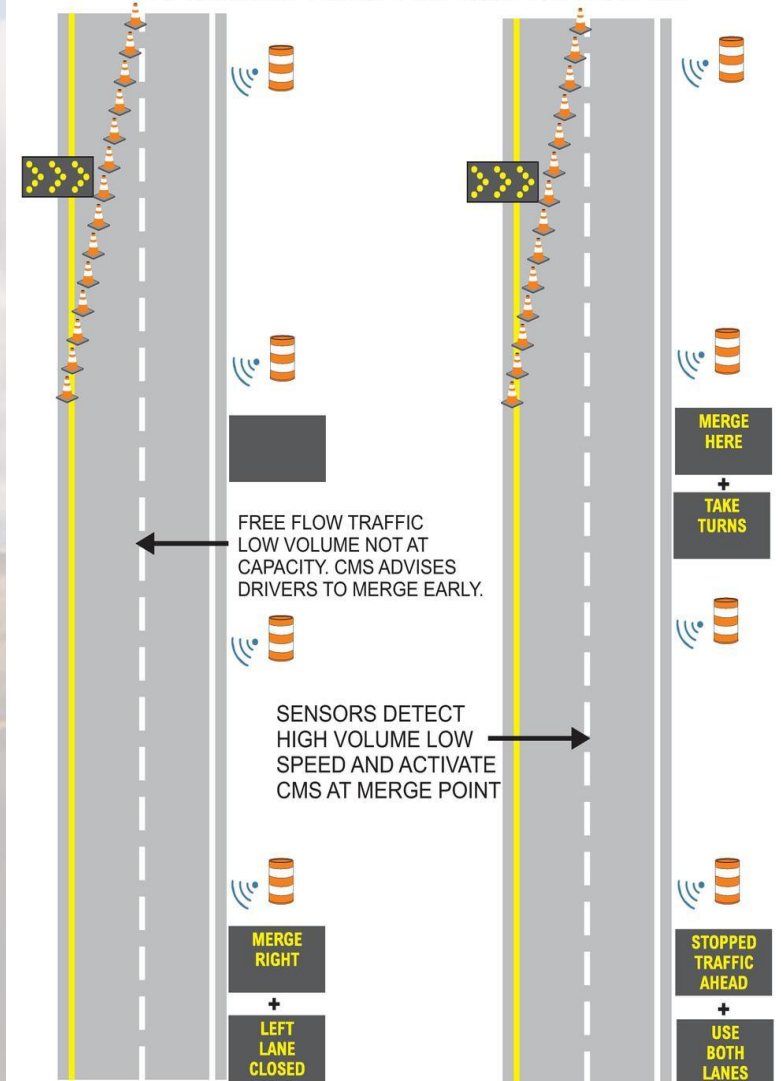
WORK ZONE COMPONENTS

SWZ Goal	Data to Collect	Devices for Data	Other Equipment
Improve speed limit compliance through work zone	*Speed	*Detector *Radar	*DMS *Variable speed limit trailer *Speed feedback sign
			



DYNAMIC MERGE

DYNAMIC LANE MERGE SYSTEM



- ◆ Activated in Real-Time
- ◆ Maintains Safe Merging Gaps
- ◆ Reduces Upstream Shockwaves

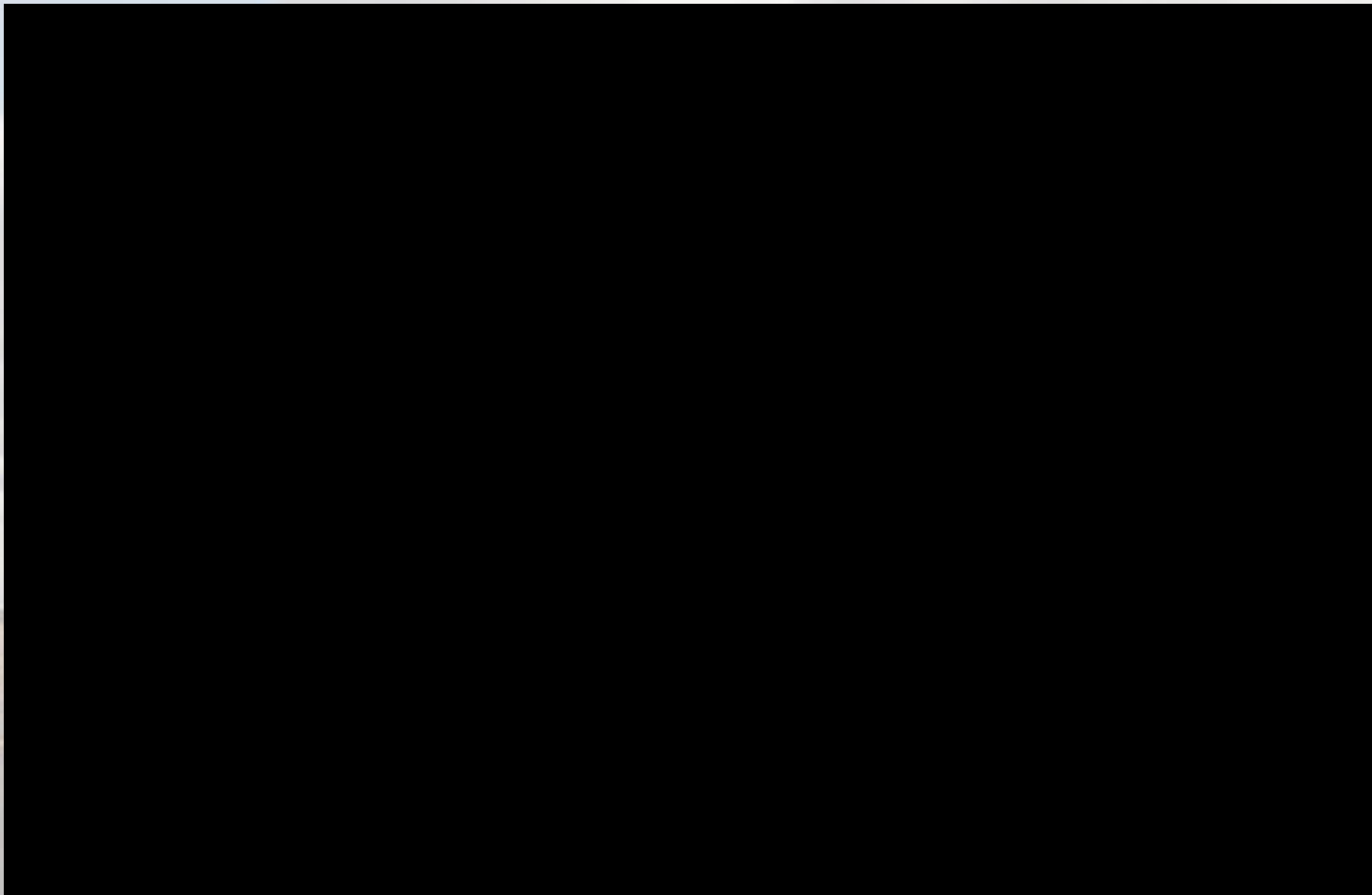


DYNAMIC MERGE



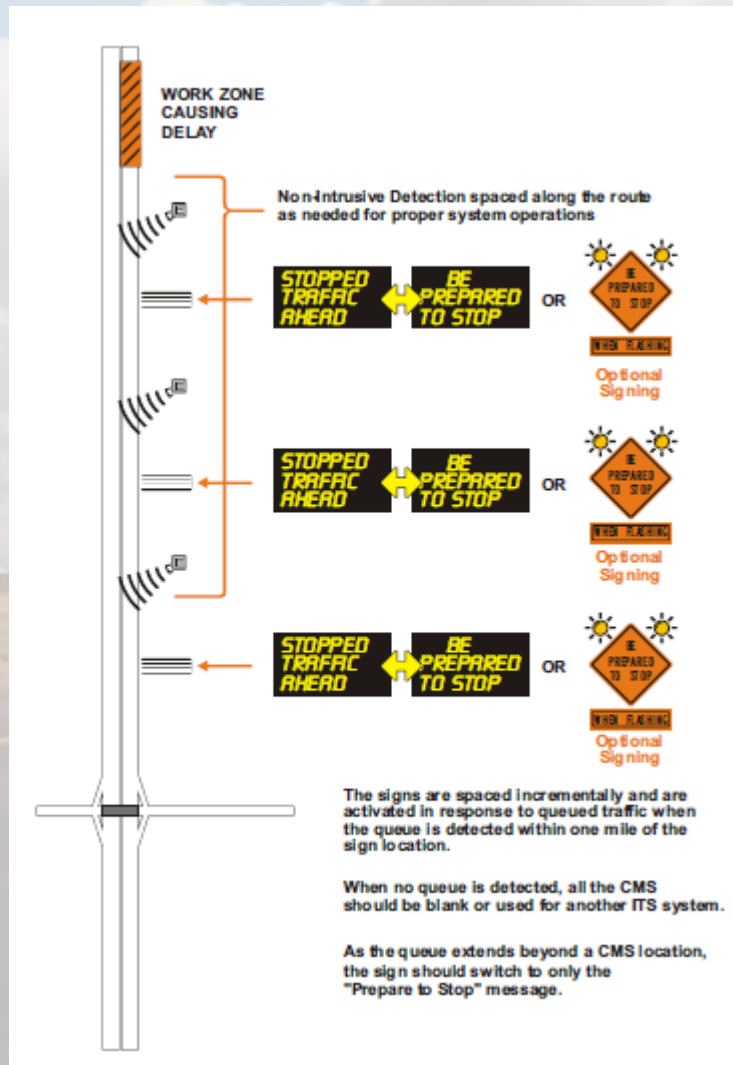


ZIPPER MERGE





QUEUE WARNING SYSTEM

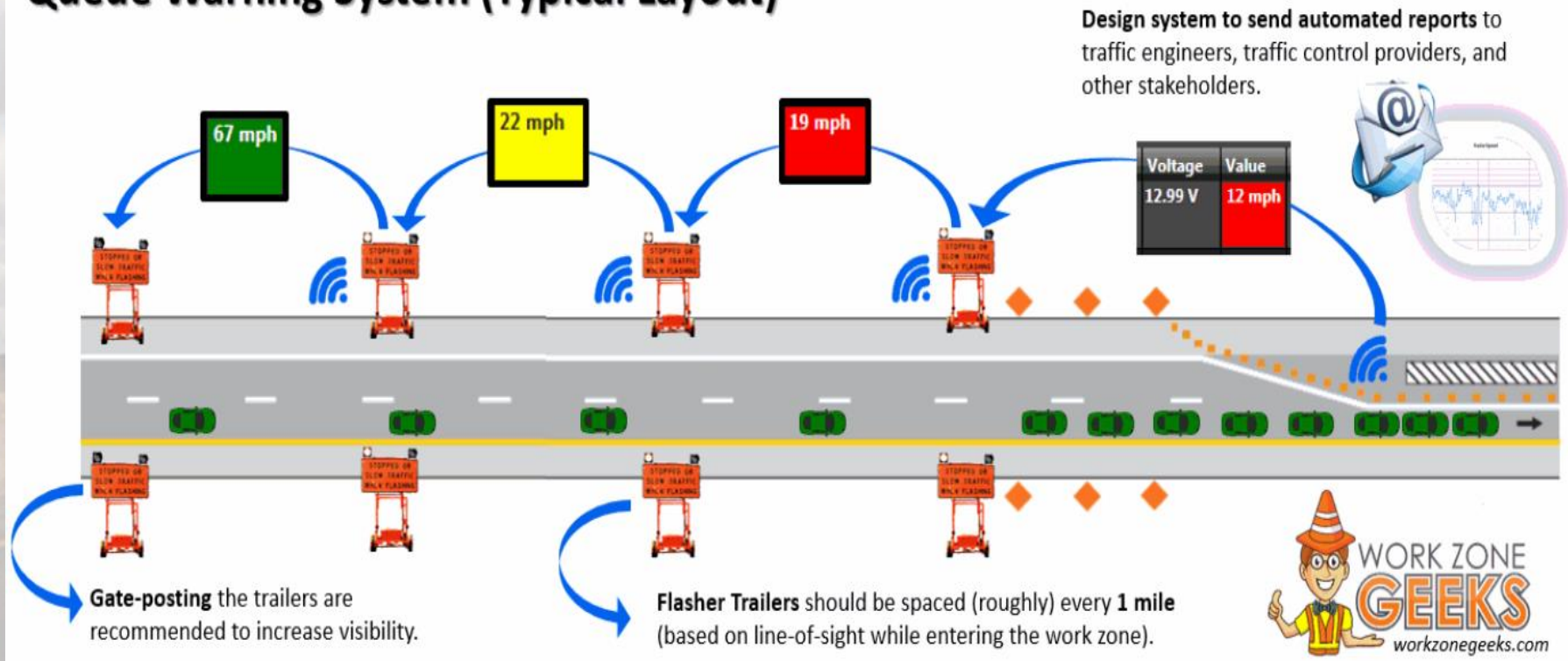


- ◆ Advanced Notification
- ◆ Detection
- ◆ Warning Signs
- ◆ Queue-related Crash Reduction



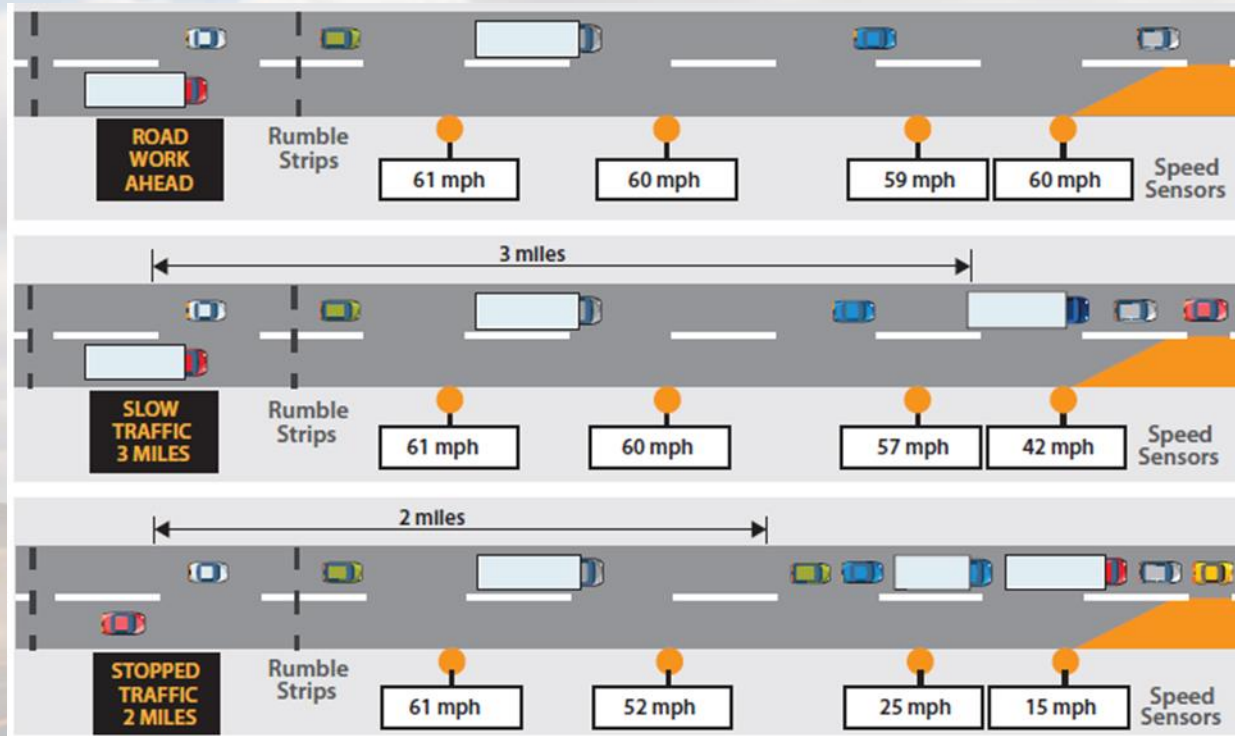
QUEUE WARNING SYSTEM

Queue Warning System (Typical Layout)





NDOT IMPLEMENTATION



Queue Warning – SR 160



ZIPPER MERGE

Take turns, move faster



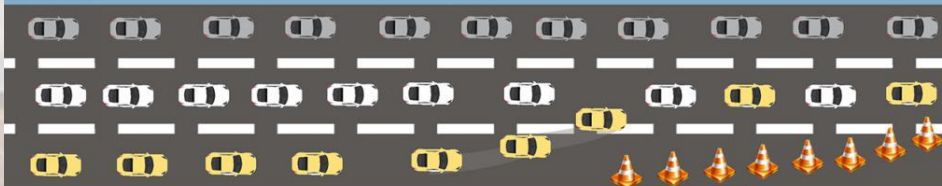
WHAT IS IT?

When a lane is closed for construction, a **ZIPPER MERGE** encourages motorists to use all available lanes until the merge point, and then alternate in a "zipper" fashion into the open lane.

THE BENEFITS

- Reduces traffic backups by up to 40 percent
- Improves safety by promoting similar travel speed between adjacent lanes
- Reduces congestion by using all available lane space

Look for ZIPPER MERGE signs on US 95 starting on March 21.



HOW IT WORKS



Signs will alert you that a ZIPPER MERGE is ahead.



Stay in your lane until the merge point.



At the "merge now" sign, take turns to safely and smoothly merge all cars into one lane.



NDOTProjectNeon.com

702.293.NEON (6366)
Se habla Español

320 Wall St.
Las Vegas, NV 89102



Project NEON – US 95





NDOT IMPLEMENTATION



**Work Zone
Travel Times
– SR 147**



Contact Info:

TRAFFIC OPERATIONS

1301 Old Hotsprings Road, Rm 108

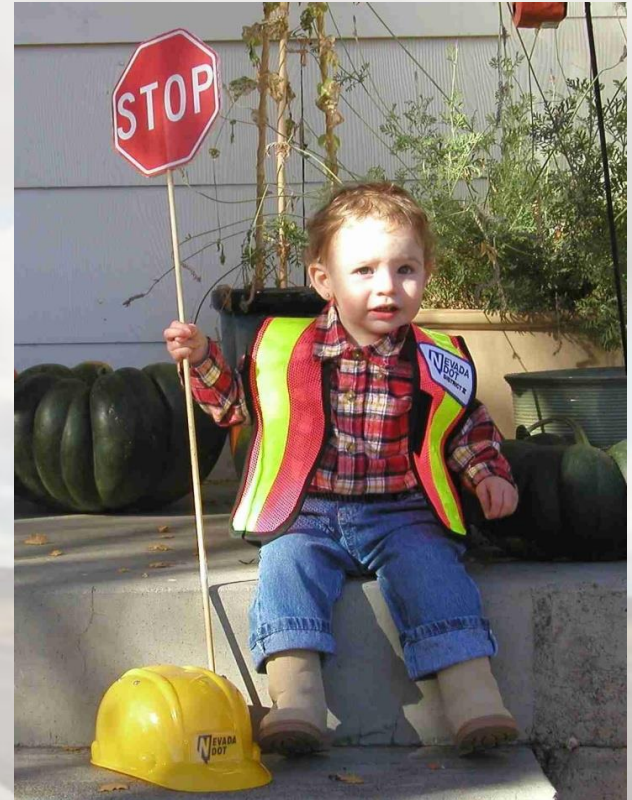
Carson City

775-888-7080

Denise M. Inda, PE, PTOE

Chief Traffic Operations Engineer

dinda@dot.state.nv.us





NEVADA DOT

SAFE AND CONNECTED



www.nevadadot.com

