Low Cost Safety Improvements
By: Luke S. Arno, CT DOT
Presentation Outcomes

Audience Will Gain Insight on:

- Research & Project Initiation
  - Proven Safety Countermeasures
  - Systemic Safety Approach
  - Public Outreach
- CT Systemic Safety Projects
- Construction & Inspection
- Review and Analysis
- Future Safety Initiatives
1. Address the Problem
   - Strategic Highway Safety Plan
   - State vs. National Crash Trends
   - Department Goals
2. Select Safety Countermeasure
3. Obligate Funding
4. Begin Design
Proven Safety Countermeasures

- Research-Proven Safety Countermeasures
- Select Countermeasure to Address Crash Type
  - Roadway Departure
  - Pedestrian
  - Intersection

https://safety.fhwa.dot.gov/provencountermeasures/
Systemic Safety

- Systemic Projects Address Crash Types Across an Entire Roadway System
- Implement Proven Safety Countermeasures According to Risk Factors, Not Just Crash Data
- Prevent Crashes Before They Happen
  - Proactive vs. Reactive
- CT has been Installing Select Low-Cost Proven Safety Countermeasures Since 2013
Public Outreach

- All Projects Require Consent from Chief Elected Officials
- Projects on Local Roads Require Town Input/Location Information
- Desire to Increase Town Participation
- Opportunity for Improvement Between Public Officials and Residents
Wrong Way Signing & Pavement Marking Project

- Reduce Likelihood of Drivers Entering Limited Access Highways at Off-Ramps

US Route 5/15 at Route 9 Off-Ramp in Berlin, CT
Flashing Signs: Install New Warning Signs and new 12” Flashers

All-Way STOP: Install New STOP Signs, STOP Ahead Signs, All-Way STOP Plaques, Post Delineators and STOP Bars

Route 44 in Mansfield, CT

Route 160 at Gilbert Ave in Rocky Hill, CT
Installed New School and Pedestrian Signs in Advance and Adjacent to Uncontrolled Crosswalks. Installed Yield Lines and “Yield Here to Pedestrians” Signs at Mid-Block Crossings
Centerline Rumble Strips: Installed on Undivided State and Local Roadways According to Risk Factors Such as Speed, Volume, Roadway Width and Pavement

Shoulder Rumble Strips: Installed on Shoulders of All Limited Access Highways in CT. Pilot Program installed Bicycle Friendly Shoulder Rumble Strips on Undivided Limited Access Roads This August

Sinusoidal Pattern on Route 5 in East Windsor, CT

Bicycle Friendly Shoulder Rumble Strips on Route 262 in Watertown, CT
Clearance Interval Retiming: Revised All-Red, Yellow and Pedestrian Timings

Horizontal Curve Warning Signs: Installed on State and Local Rural Roads

Route 4 at Route 118 in Harwinton, CT

Vagra Road in Ashford, CT
Retroreflective Backplates & I-91 Reference Markers

Retroreflective Backplates: Enhance Traffic Signal Visibility

Reference Markers: Installed Every 0.2 Miles to Improve Emergency Response Times

Route 6 at Route 72 in Plymouth, CT

I-91 NB in Wallingford, CT
Typical Construction Details
Accurate Project Location Mapping
Good Communication Between Construction & Design
Perform Before/After Studies on Completed Projects with Sufficient Crash Data

Determine if Projects Were Economically Justified

Develop State Specific Safety Initiatives
Future Safety Initiatives

- High Friction Surface Treatment
- Removal of Programmed Flash
- ITS Wrong Way Detection
- Regional Safety Plans
Questions?

ConneCT to Safety
EVERY LIFE COUNTS