

2024 CT ROAD SAFETY SUMMIT

Local Perspective on Transportation Safety Innovative Approaches

Focused on ***SPEED***



Traffic Counts Town of Litchfield



2024 Connecticut Road Safety Summit
Focused on ***SPEED***

SCOPE

traffic radar tests

- Working with the Connecticut Transportation Institute's Training and Technical Assistance Center, the Department of Public Works set up **eight** (8) key locations in the Town of Litchfield to record vehicular volume and speed classification data.
- The tests were performed over the period between February 2, 2024 and **April 10, 2024**.
- Each location recorded data 24 hours/day for seven (7) days.

LOCATIONS

radar test sites



Test Site #7 - ex

route 118 - 95 east litchfield road



SPEED LIMIT

SPEED
LIMIT
50

AVERAGE SPEED

48

FASTEST SPEED

85

VEHICLE COUNTS

26,407

% OF VIOLATIONS

42%

SUMMARY

compiled data

	Rt 202	West St	North St	South St	East St	Rt 254 (1)	Rt 118	Rt 254 (2)
Road Speed								
Speed Limit	40	30	35	35	40	50	50	50
Average Speed	45	34	44	40	47	48	48	60
10 MPH Pace Speed	41-50	31-40	36-45	36-45	41-51	51-61	51-61	51-61
Vehicles in Pace	53,281	64,432	22,400	18,233	35,008	11,257	27,152	11,268
Percent in Pace	74%	75%	63%	57%	58%	43%	58%	40%
> Posted MPH (#)	61,963	62,949	33,720	25,722	55,027	10,940	19,725	20,264
> Posted MPH (%)	85%	65%	95%	80%	90%	41%	42%	72%
Road Count								
Total Vehicles	72,762	87,713	35,658	32,180	61,263	26,407	47,201	28,145
West/South Bound	35,925	38,596	18,463	16,321	29,904	15,672	23,212	14,394
East/North Bound	36,837	49,117	17,195	15,859	31,359	10,735	23,989	13,751
AM Peak Volume	6,688	7,949	2,829	2,612	5,520	2,414	3,962	2,352
PM Peak Volume	6,859	9,033	3,423	3,178	6,119	2,560	4,390	2,460



**Connecticut
Transportation Safety
Research Center**

UCONN – CT TRANSPORTATION INSTITUTE

Select Town & Route

- Branford I-95
- East Lyme I-95
- Hamden CT-15
- Norwalk I-95
- Trumbull CT-15

Month (Select One or More)

- January 2018
- February 2018
- March 2018
- April 2018
- May 2018
- June 2018
- July 2018
- August 2018
- September 2018
- October 2018
- November 2018



Select a Graph View

- All Data
- 85th Data
- Temporal Data
- 85th Temporal Data
- Speed Percentages

Filter Reset

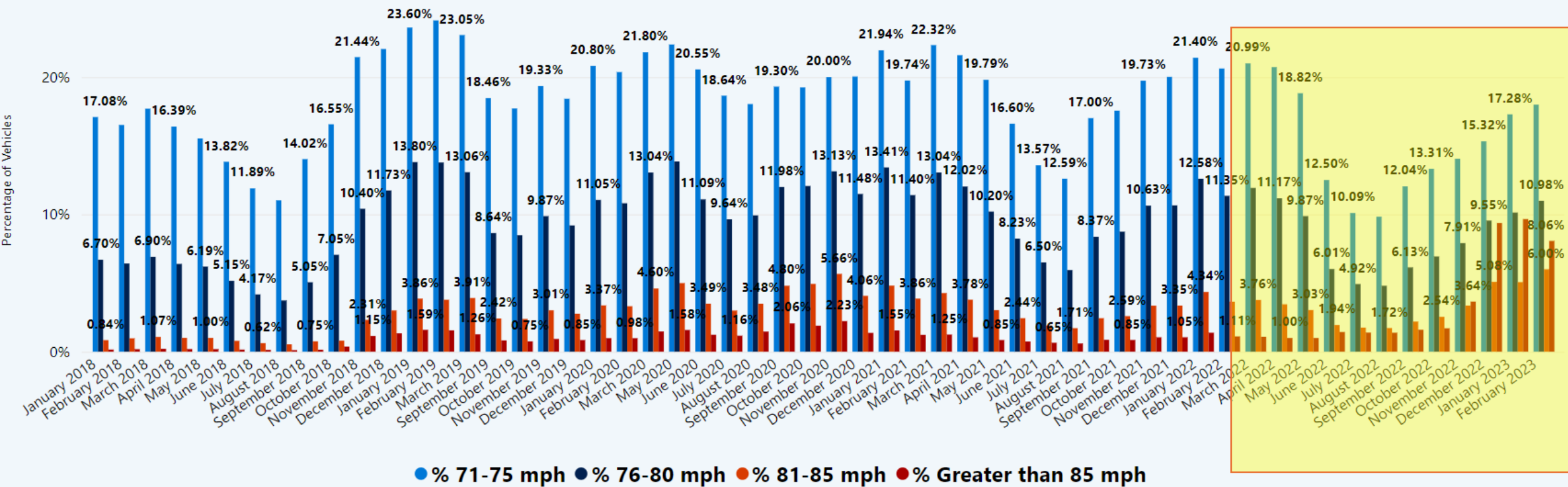
Continuous Count Station

Daytime Vehicle Speeds

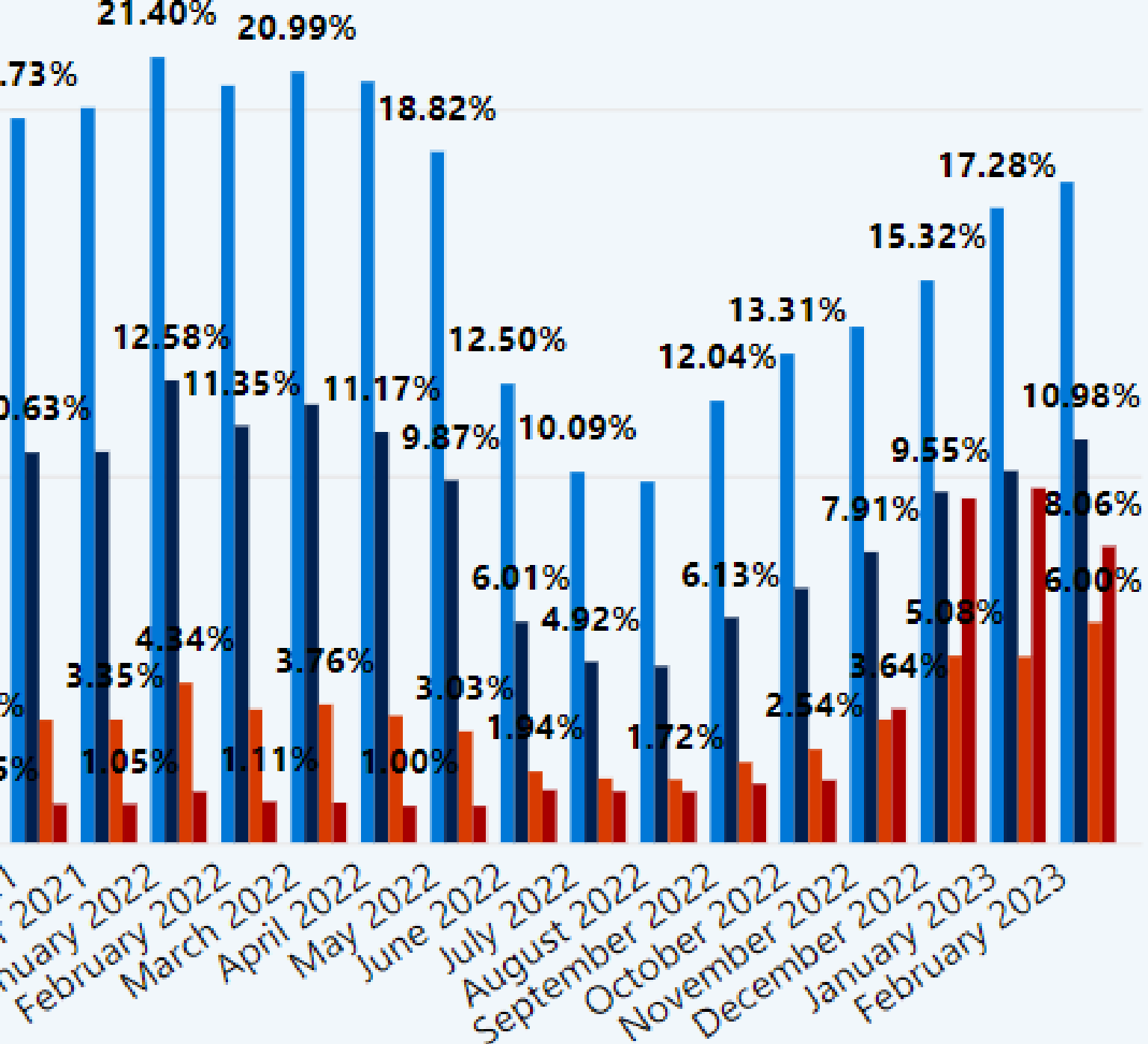


Traffic Monitoring Unit

Vehicles Traveling Identified Speed Ranges as a Percent of Overall Volume



Note: All graphs presented use hourly data from 6:00am to 7:00pm.



- % 71-75 mph
- % 76-80 mph
- % 81-85 mph
- % Greater than 85 mph



- Welcome
- Summary
- Pedestrian
- Fatal
- Fixed Objects
- Intersections
- FMCSA
- Motorcycle
- Non-Motorists
- Wrong Way
- Bicycle
- Young Driver (15-25)
- Teen Driver (15-19)
- ATV
- School Bus
- 65+ Drivers and Peds
- 65+ Driver

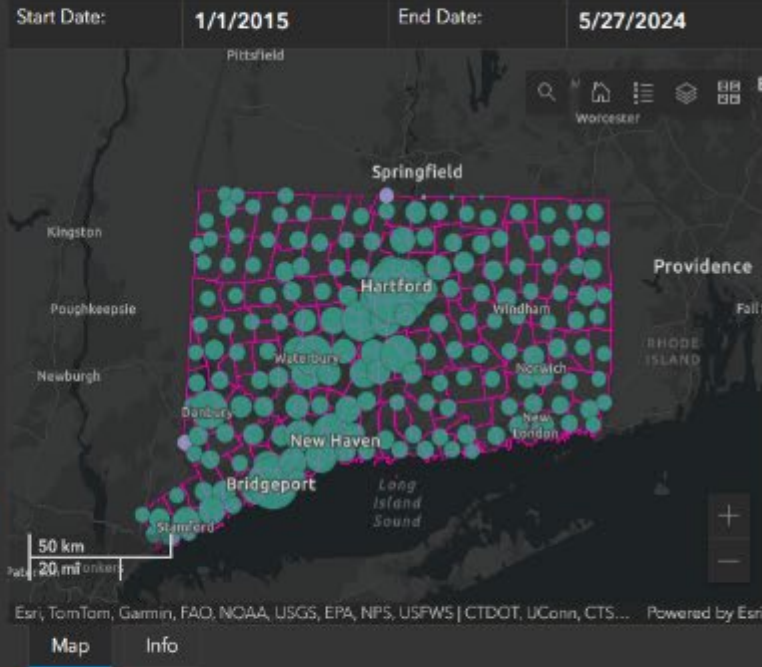
Total Crashes
82,305
 involving Speeding

Work Zone Related
635

School Bus Related
354
 Directly or Indirectly

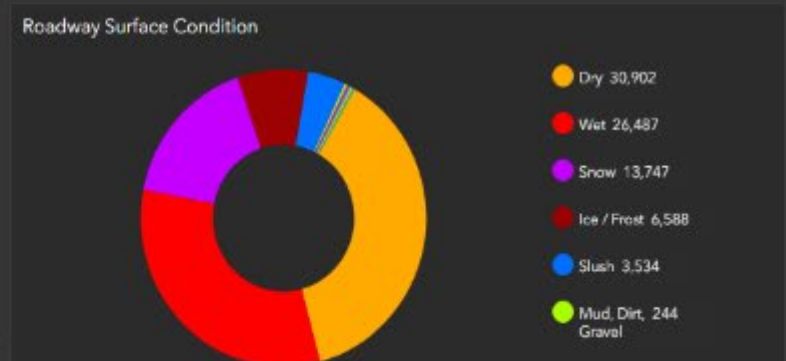
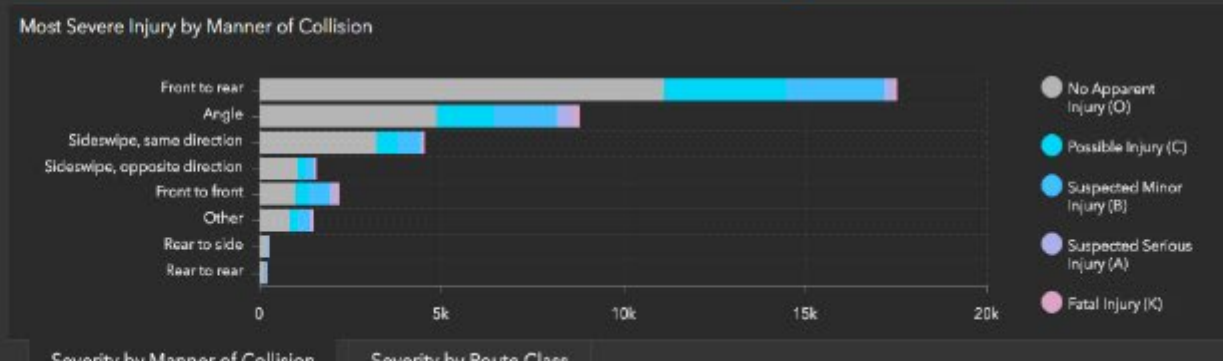
Intersection Related
17.9k

Click on the arrow to the left to access the side panel and select filters.



Fatal Injury Crashes
887
 of 82,305

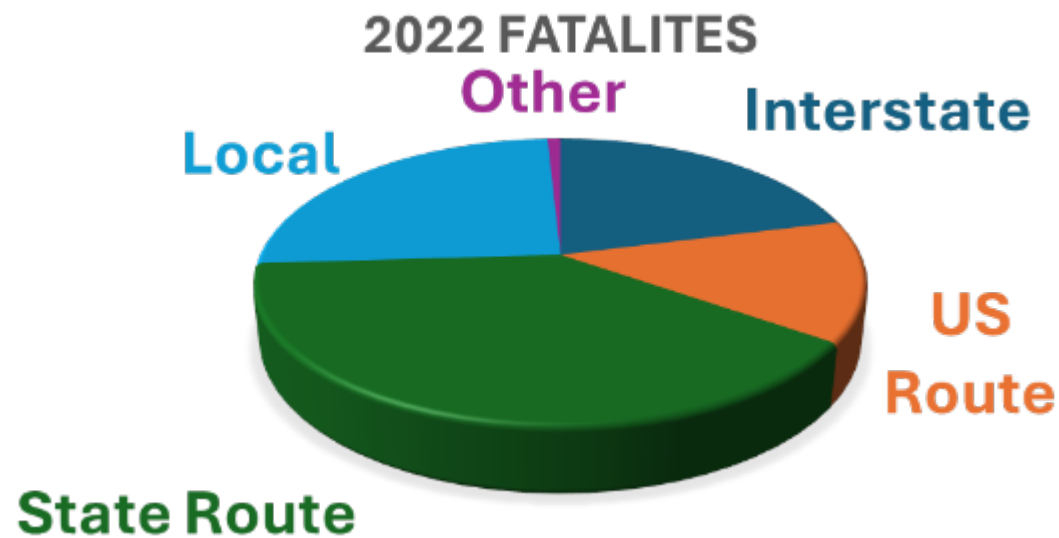
Suspected Serious Injury Crashes
2,300
 of 82,305





	Interstate	US Route	State Route	Local	Other	Total
Count	77	50	144	92	3	366
Percent	21%	14%	39%	25%	1%	

2022 Fatality Breakdown



Watch for Me CT



KAYLA
4TH GRADE!

WATCH FOR KIDS
WALKING AND BIKING!

SCHOOL IS BACK IN SESSION
WATCH FOR CHILDREN

WATCH FOR ME CT

SafeRoutes

**OCTOBER IS
PEDESTRIAN
SAFETY MONTH**

WATCH FOR ME CT Connecticut Childrens

WATCHFORME.CT.ORG

FIRST DAY OF
KINDERGARTEN!

SLOW DOWN FOR BUSES
AND IN SCHOOL ZONES!

SCHOOL IS BACK IN SESSION
WATCH FOR CHILDREN

WATCH FOR ME CT

SafeRoutes

**TRAIL CROSSING
SAFETY**

Use the push button
at road crossings to
warn drivers.

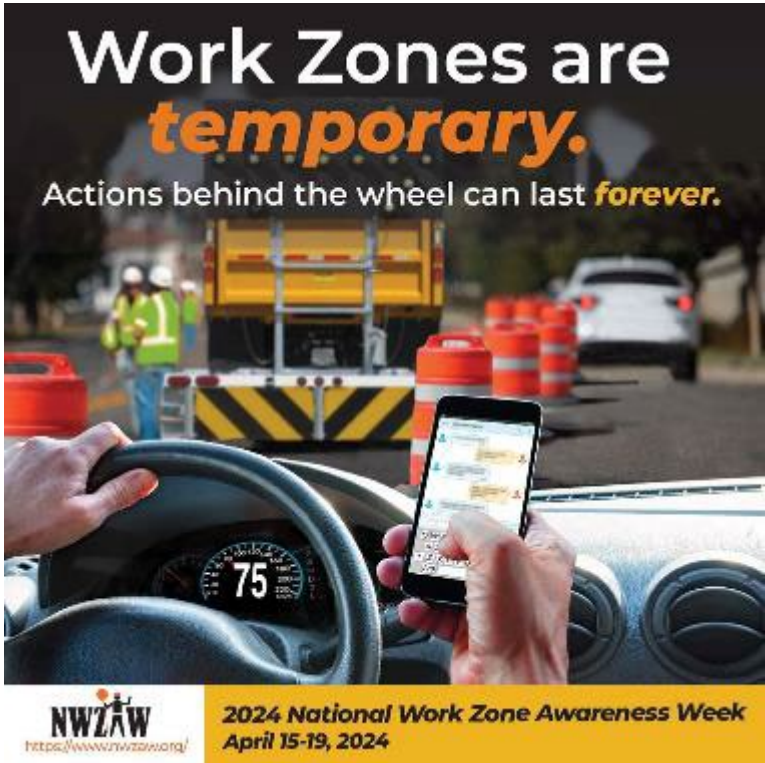
WATCH FOR ME CT



1,151 crashes involved
pedestrians in 2023.

WATCH FOR ME CT

Cross-topic education



Speed limits are not suggestions. They are specific to the road and situation.

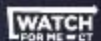


OCTOBER IS NATIONAL PEDESTRIAN SAFETY MONTH



“PLEASE SLOW DOWN. OUR LIVES DEPEND ON IT.”

WORDS TO LIVE BY



Outreach, Education, Publications

- Events
- Presentations
- Health and Safety Fairs
- Kids events and Bike Rodeos
- Open Streets events
- Guides, tip sheets,
- Articles and op eds

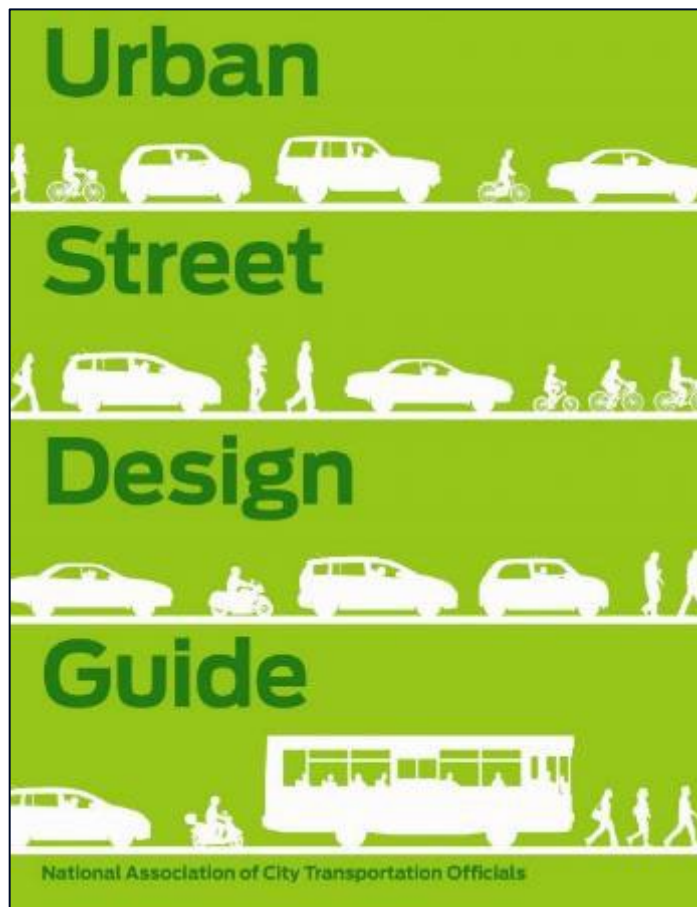


UMASS Transportation Center

UMASS - AMHERST

Traffic Calming & Speed Mgmt Resources

NACTO Urban Street Design Guide



FHWA Traffic Calming ePrimer

Traffic Calming ePrimer

The Traffic Calming ePrimer is a free, online resource openly available for public use. The ePrimer presents a thorough review of current traffic calming practices and contains the information needed to understand the concept. The ePrimer is structured in eight distinct modules designed to allow the reader to move between sections to find the most relevant information without a down-to-earth reading. The modules include:

- A definition of traffic calming, its purpose, and its relationship to other transportation initiatives (for example, ramps and control sensitive locations).
- Illustrations and photographs of 22 different types of traffic calming measures.
- Considerations for five specific applications, including at-grade and design and installation specific.
- Research on the effects of traffic calming on automobile, motorcycle, bicycle, pedestrian, emergency response, public transit, and access to bicycle, wheelchair, and stroller.
- Assessive and case studies of both comprehensive traffic calming programs and neighborhood-specific traffic calming plans.
- Guidelines for the development of traffic calming programs and project and implementation of the effects of individual and series of traffic calming measures.

Click to expand and view modules

Module 1: Purpose and Organization of ePrimer	Module 6: Effects of Traffic Calming Measures on Non-Personal Passenger Vehicles
Module 2: Traffic Calming Basics	Module 7: Effects of Traffic Calming Measures on Non-Motorized Users
Module 3: Toolkit of Individual Traffic Calming Measures	Module 8: Traffic Calming Programs and Planning Processes
Module 4: Effects of Traffic Calming Measures on Motor Vehicle Speed and Volume	Module 9: Traffic Calming Case Studies

ITE Fact Sheet

Traffic Calming Fact Sheets
May 2018 Update

Speed Table/Raised Crosswalks

Description:

- Long, raised speed humps with a flat section in the middle and ramps on the ends; sometimes constructed with brick or other textured materials on the flat section.
- If placed at a pedestrian crossing, it is referred to as a raised crosswalk.
- If placed only in one direction on a road, it is called an offset speed table.

Applications:

- Appropriate for local and collector streets; mid-block or at intersections, with/without crosswalks.
- Can be used on a one-lane one-way or two-lane two-way street.
- Not appropriate for roads with 80% percentile speeds of 45 mph or more.
- Typically long enough for the entire wheelbase of a passenger car to rest on top or within limits of ramps.
- Work well in combination with textured sidewalks, curb extensions, and curb-radius reductions.
- Can be applied both with and without sidewalks or dedicated bicycle facilities.
- Typically installed along closed-section roads (i.e. curb and gutter) but feasible on open section.

Design/Installation Issues:

- ITE recommended practice – “Guidelines for the Design and Application of Speed Humps”
- Most common height is between 3 and 4 inches (reported as high as 6 inches).
- Ramps are typically 6 feet long (reported up to 10 feet long) and are either parabolic or linear.
- Posted speed typically 30 mph or less.

Potential Impacts:

- No impact on non-emergency access.
- Speeds reductions typically less than for speed humps (typical traversing speeds between 25 and 27 miles per hour).
- Speeds typically decline approximately 0.3 to 1 mph midway between tables for each 100 feet beyond the 200-foot approach and exit points of consecutive speed tables.
- Average traffic volumes decreases of 25 percent when a series of speed tables are implemented.
- Average crash rate reduction of 45 percent on treated streets.
- Increase pedestrian visibility and likelihood of driver yield compliance.
- Generally not appropriate for BRT bus routes.

Emergency Response Issues:

- Typically preferred by fire departments over speed humps, but not appropriate for primary emergency vehicle routes; typically less than 3 seconds of delay per table for fire trucks.

Typical Cost (2017 dollars):

- Cost ranges between \$2,500 and \$8,000 for asphalt tables; higher for brickwork, stamped asphalt, concrete ramps, and other enhancements sometimes used at pedestrian crossings.

ITE/FHWA Traffic Calming ePrimer: https://safety.fhwa.dot.gov/speedmgmt/traffic_calming/

Factors Influencing Operating Speeds and Safety on Rural and Suburban Roads

PUBLICATION NO. FHWA-HRT-15-030

MAY 2015

....appendix

LATERAL SHIFT



Source: City of Sparks Public Works:
Traffic Division, Reno, NV

Figure 142. Photo. Lateral shift.⁽¹⁰¹⁾

Description

A lateral shift is a curb extension that shifts travel lanes to one side of the road for an extended distance and then back to the other side.⁽¹⁰²⁾

Design Details

A lateral shift generally includes a center island with curbing, which prohibits vehicles from entering the opposing lane. They may also incorporate landscaping in the center island.⁽¹⁰¹⁾ The curb can be constructed from different materials, such as concrete, granite, or asphalt, depending on the desired appearance.

Safety Effectiveness

No published safety evaluation for a lateral shift was found.

Speed Reduction Effectiveness

Lateral shifts from the installation of raised traffic islands have been shown to reduce 85th-percentile speeds by 11 mph (-25 percent).⁽¹⁰²⁾

Cost

The cost to construct a lateral shift can vary significantly, which is mainly dependent on the type of material (i.e., concrete or granite), size of the offset, and the length of the transition.⁽¹⁰¹⁾



[Home](#) / [Safety](#) / [Speed Management Safety](#)

Speed Management Safety

USLIMITS2



Facts & Statistics

Engineering Speed Limits

Traffic Calming ePrimer

Ongoing Research

Reference Materials

Related Web Site Links

Speed Management

Speeding - traveling too fast for conditions or exceeding the posted speed limits - is a contributing factor in 26 percent of all fatalities. In 2020, there were 38,824 fatalities on our Nation's roadways, of which 11,258 were speeding-related - increased by 17 percent from the previous year. Speeding is a safety concern on all roads and for all road users. Although much of the public concern about speeding has been focused on high-speed Interstates, only 14 percent (1,344) occurred on interstate highways, rural and urban combined, while 86 percent of speeding-related fatalities occurred on non-interstate roadways. Speeding is a complex issue involving engineering, driving behavior, education, and enforcement. FHWA is the lead agency accountable for the engineering actions.



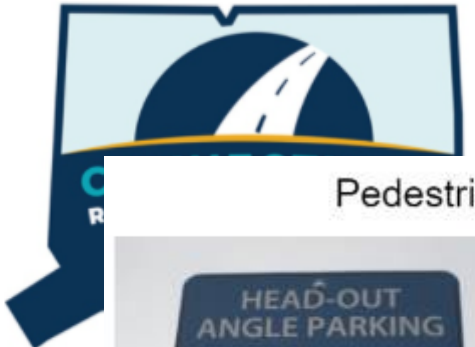
Last updated: Monday, September 26, 2022

Local Traffic Calming Resources

Connecticut Safety Examples

About This Resource

Making decisions to improve safety on local roadways is not an easy task. We have prepared this repository of Connecticut safety countermeasure examples to assist you in evaluating solutions to safety concerns in your municipality. We hope the following information will be helpful as you navigate this tool.



Countermeasures By Type

- [Pedestrian and Bicycle Safety Enhancements](#)
- [Planning and Policies](#)
- [Roadway Improvements](#)

Countermeasures By Agency

- [Town of Fairfield](#) CTD
- [Town of Farmington](#) CTD
- [City of New Britain](#) CTD
- [Town of New Milford](#) CTD

Pedestrian and Bicycle Safety Enhancements



Bike Friendly (Head-out Angle) Parking
City of New Britain



Bike Lanes with Textured Surface
City of New Haven



Crosswalk Signing and Marking Enhancements
City of New Britain



High Intensity Activated Crosswalk (HAWK)
CTDOT and City of Storford



Leading Pedestrian Interval
City of Storford



Road Diet
City of New Britain

Safe speeds: roadway treatment technical toolkit

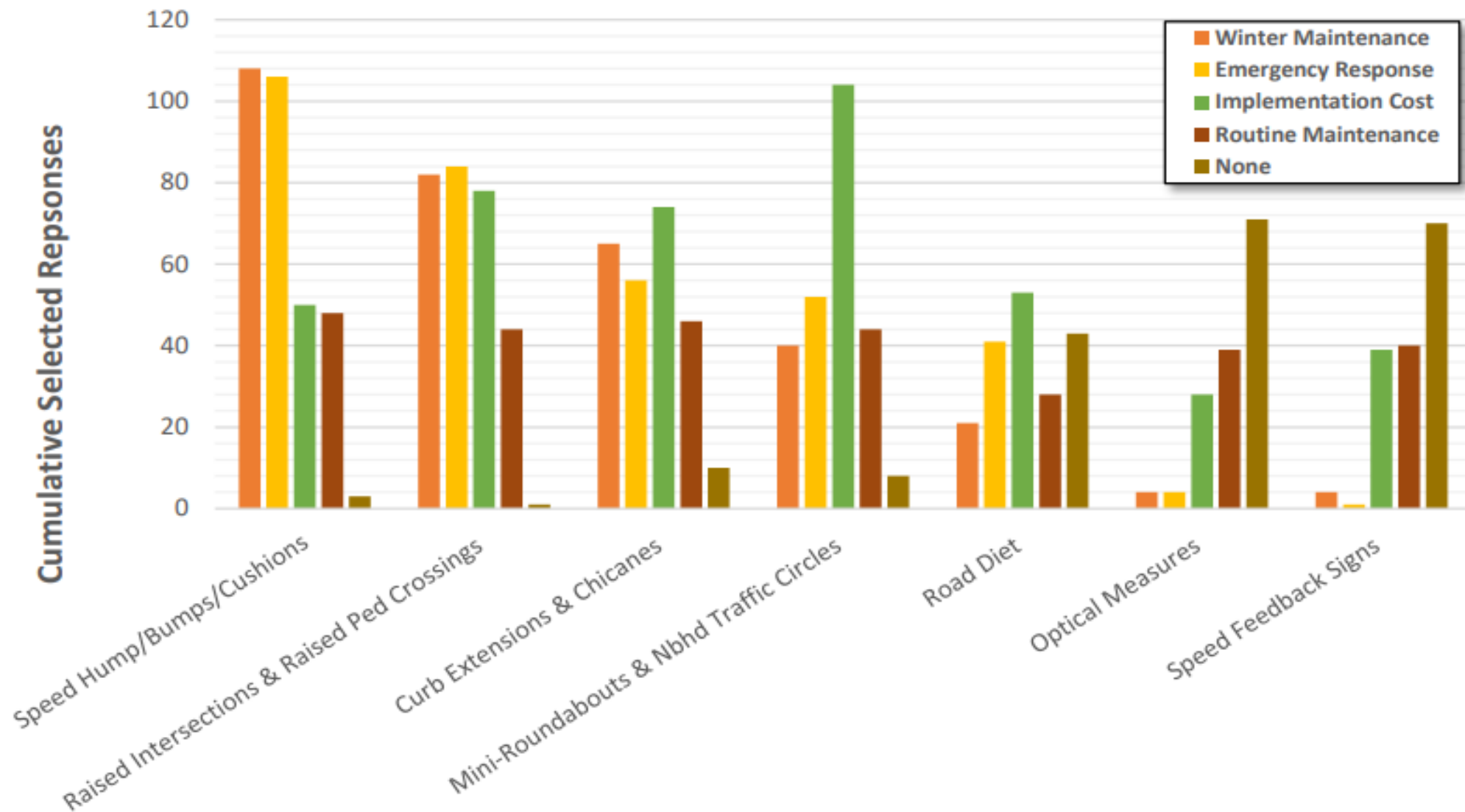
Speed management to prevent serious injuries and fatalities.

TABLE OF CONTENTS

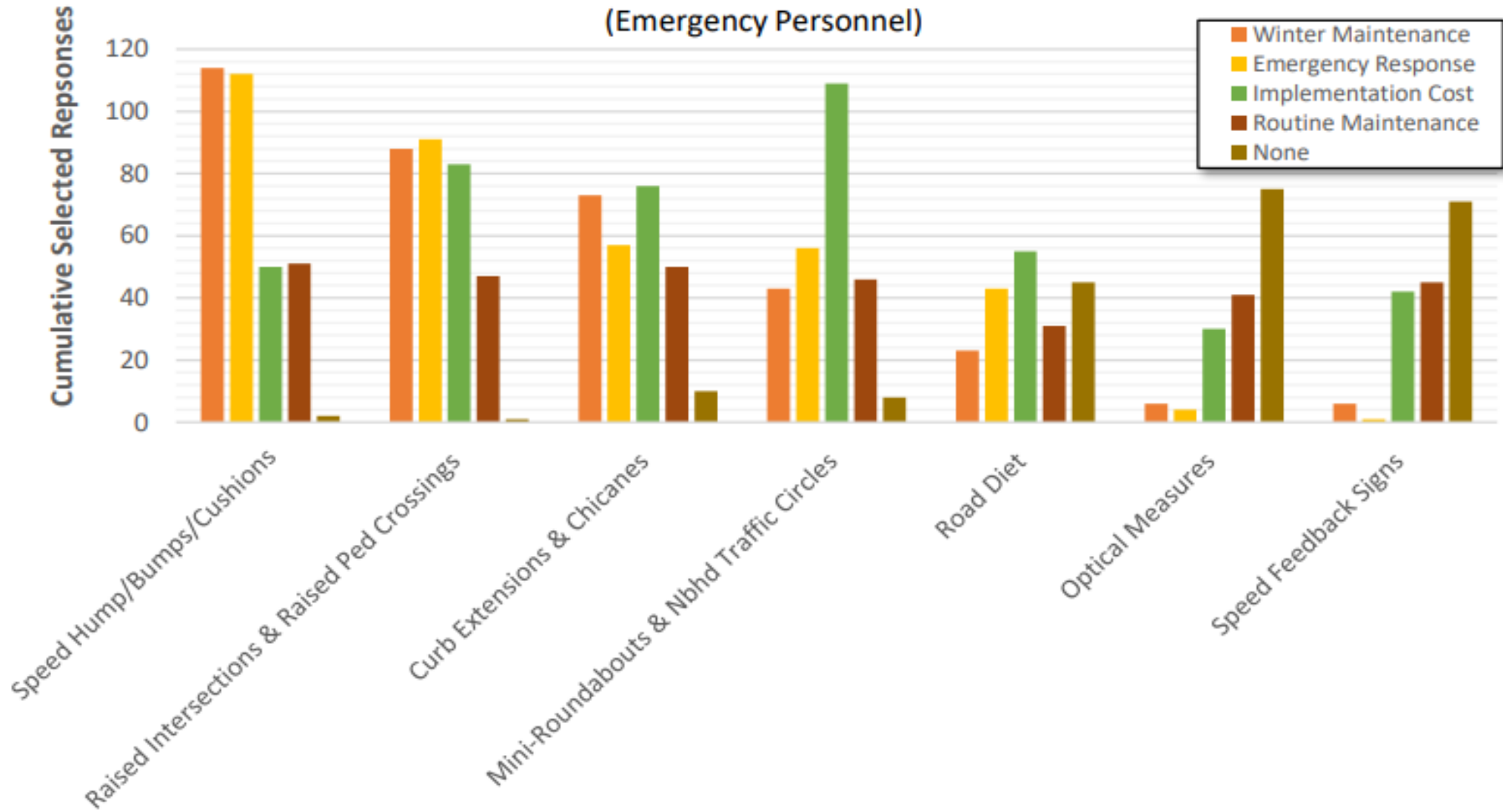
- ▼ [How to use the toolkit](#)
- ▼ [Vertical deflection countermeasures](#)
- ▼ [Horizontal countermeasures](#)
- ▼ [Mini roundabouts and neighborhood traffic circles](#)
- ▼ [Road diets and marking measures](#)
- ▼ [Speed transition zones, advisory, and feedback signage](#)
- ▼ [Take action and learn more](#)
- ▼ [Contact](#)

Public &
Professional

Challenges Regarding Speed Management Countermeasure (Public Works)



Challenges Regarding Speed Management Countermeasure (Emergency Personnel)





David Zipper 
@DavidZipper

Belfast and Edinburgh reduced their speed limits from 30 mph to 20. The result:

"The main outcome of these schemes was a reduction in road casualties at all levels of severity."


pubmed.ncbi.nlm.nih.gov/36173872/

Review

Developing and implementing 20-mph speed limits in Edinburgh and Belfast: mixed-methods study

Ruth Jepson ¹, Graham Baker ², Claire Cleland ³, Andy Cope ⁴, Neil Craig ⁵, Charlie Foster ⁶, Ruth Hunter ⁷, Frank Kee ⁸, Michael P Kelly ⁷, Paul Kelly ², Karen Milton ⁹, Glenna Nightingale ¹, Kieran Turner ¹ ², Andrew James Williams ⁹, James Woodcock ¹⁰

Southampton (UK): National Institute for Health and Care Research; 2022 Sep. Public Health Research.

Affiliations 

PMID: 36173872 Bookshelf ID: NDK584570 DOI: 10.3310/XAZI9445

[Free Books & Documents](#)

Tweet your reply



Ben Hellerstein @BHellerstein · 22h
One of my favorite features from a recent street project in [#Brookline](#). The sidewalk goes around the tree, providing a continuous accessible route for pedestrians while preserving tree canopy & creating a traffic calming bump-out. [@BlincTransport](#)



3 replies 18 retweets 113 likes  



TREC at PSU
@TRECpdx

This Friday, join us on the [@portland_state](#) campus with [@CEEdeptPDX](#) professor Jason Anderson and [@PBOTinfo](#) [#VisionZero](#) coordinator Clay Veka, as they share progress and next steps in Portland's **speed management** process. trec.pdx.edu/events/profess...



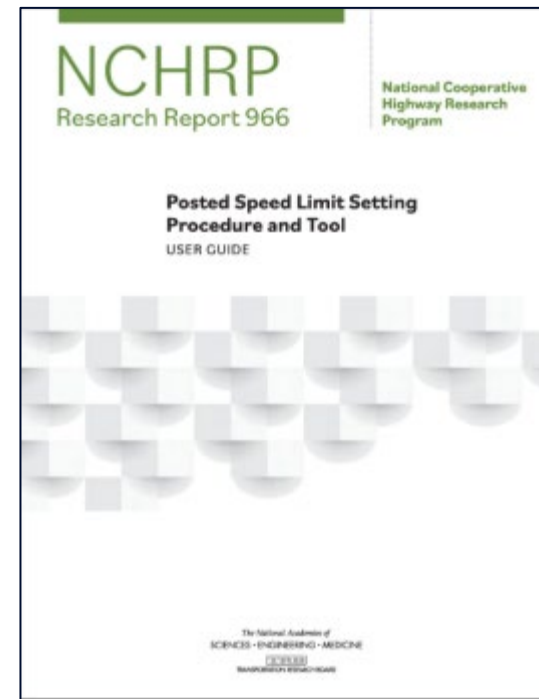
1:29 PM · 10/3/22 · [TweetDeck](#)

1 Retweet 4 Likes

Tweet your reply



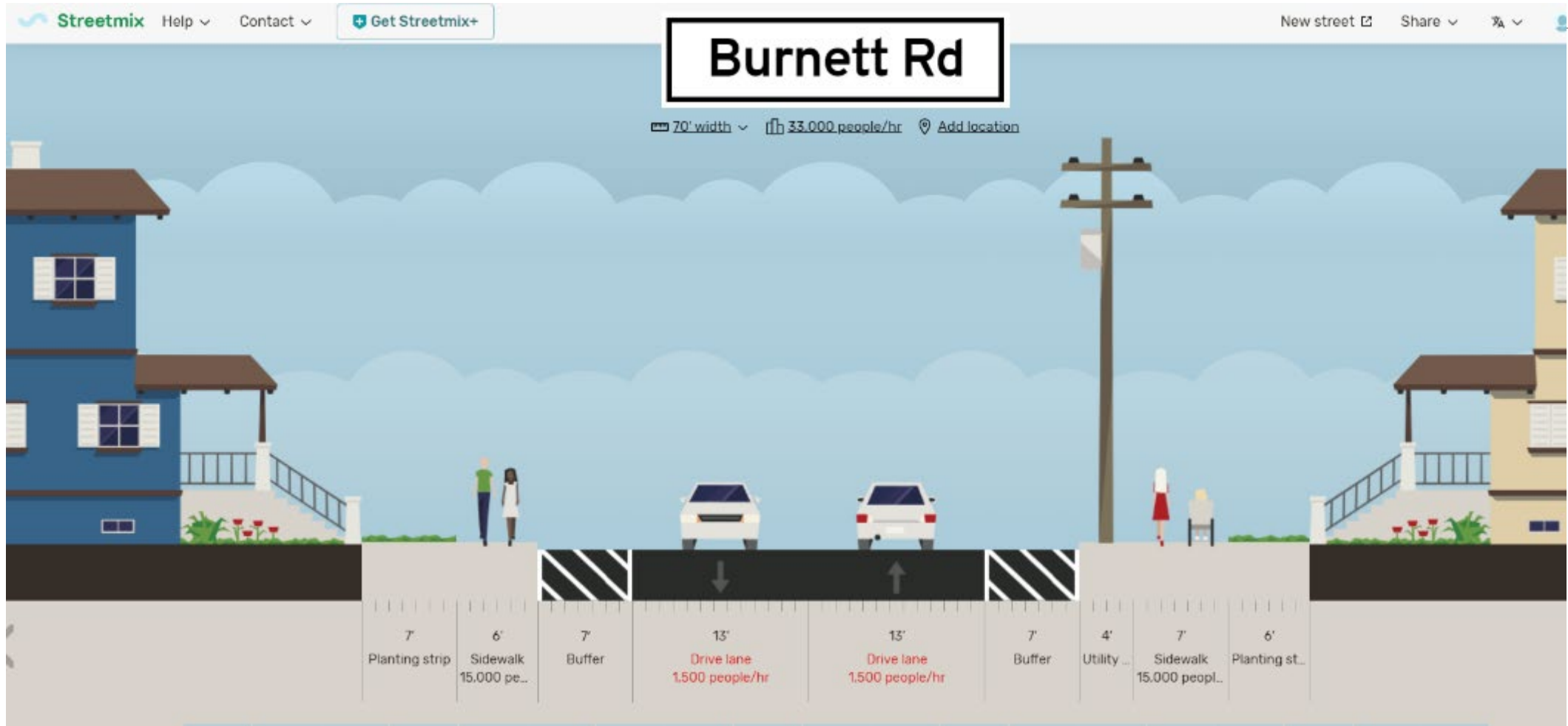
Latest Speed Limit Research (NCHRP 17-76)



NCHRP 17-76 Speed Limit Setting Tool		
Input Cells	Description	Output Cells
Site Description Data		Color-Coding Legend
Urban core	Roadway context	Aqua = basic input cell
Collector	Roadway type	Denim = basic input cell with drop-down menu
yes	Are crash data available?	Orange = optional input cell (not needed for calculations)
User	Analyst	Green = optional input cell (use if data for agency & region are available, leave blank otherwise)
3/18/2020	Date	Rose = intermediate calculations
Example	Roadway name	Purple = final analysis results
Example 4	Description	
30	Current speed limit (mph)	
	Notes	
		Note: The "Test macros" button provides a message to verify proper macro operation.
Analysis Results		Advisory, Calculated, or Warning Messages
	Speed limit setting group	Full access
	Suggested speed limit (mph)	30
		This value is determined by speed data, site characteristics, & crash data.
Speed Data		Advisory, Calculated, or Warning Messages
30	Maximum speed limit (mph)	
33	50th-percentile speed (mph)	
Site Characteristics		Advisory, Calculated, or Warning Messages
1.2	Segment length (mi)	
2	Number of lanes (two-way total)	
Undivided	Median type	
3	Number of traffic signals	2.5 signals / mi
10	Number of access points (total of both directions)	8.33 access points / mi
Not high / Any type	Bicyclist activity / bike lane type	
Wide	Sidewalk presence / width	
Present	Sidewalk buffer	
High	Pedestrian activity	
High	On-street parking activity	Rounded-Down 50th
No	Angle parking present?	
No	Adverse alignment present?	
Crash Data		Advisory, Calculated, or Warning Messages
5	Number of years of crash data	
10,000	Average AADT for crash data period (veh/d)	
No	Is the segment a one-way street?	
50	All (KABCO) crashes for crash data period	Observed KABCO crash rate = 228.31 crashes / 100 MVMT
25	Fatal & injury (KABC) crashes for crash data period	Observed KABC crash rate = 114.16 crashes / 100 MVMT
	Average KABCO crash rate (crashes / 100 MVMT)	HSIS average KABCO crash rate = 246.62 crashes / 100 MVMT
	Average KABC crash rate (crashes / 100 MVMT)	HSIS average KABC crash rate = 73.14 crashes / 100 MVMT
1.3 x average KABCO crash rate (crashes / 100 MVMT)		
1.3 x average KABC crash rate (crashes / 100 MVMT)		
Critical KABCO crash rate (crashes / 100 MVMT)		
Critical KABC crash rate (crashes / 100 MVMT)		
		Rounded-Down 50th

The research team considered the breadth of approaches available for the setting of speed limits and the need to develop a methodology that could be used for any roadway type. The research team selected a decision-rule-based procedure for the SLS-Procedure. Given the increased emphasis on designing for the context of the roadway, the research team decided that the SLS-Procedure should be sensitive to context and use the expanded functional classification scheme available in NCHRP Research Report 855 (33). The roadway types and roadway contexts available within the expanded functional classification scheme were collapsed into four Speed Limit Setting Groups (SLSGs): Limited-Access, Undeveloped, Developed, and Full-Access. Unique decision rules were developed for each SLSG.

Complete Street Visualization Tool – Streetmix.net



Q & A/Discussion