NRPC 2022 Traffic Counting Program Summary

What are traffic counts?

➢ **Annual regional requirement for NH DOT**

- List of required count locations provided in spring
- Fieldwork typically done May through November
- May also include locally requested counts

|	TOWN	Site ID	LOCATION	CLAS	Install Da	Sent to D	ccepted by	Starnex	PDF	PRN	XLS
1											
2	TOTAL	118									
3	NASHUA	813150610000	TEMPLE ST EB WEST OF EAST PEARL ST		16-May	YES	YES	Done	Done	Done	Done
4	NASHUA	813150910000	WEST PEARL ST EB BETWEEN CHESTNUT ST AND WALNUT ST		7-Nov	YES	YES	Done	Done	Done	Done
5	NASHUA	813152650000	SPRING ST NB SOUTH OF EAST PEARL ST		9-May	YES	YES	Done	Done	Done	Done
6	AMHERST	820130520000	HORACE GREELEY RD NORTH OF AUSTIN RD	YES	8-Aug	YES	YES	Done	Done	Done	Done
7	AMHERST	820130543070	NH 101A (MILFORD RD) EAST OF NH 122 (EB-WB) (81013086-81	YES	8-Aug	YES	YES	Done	Done	Done	Done
8	AMHERST	820130620000	BOSTON POST RD OVER BEAVER BROOK NORTH OF NH 101		8-Aug	YES	YES	Done	Done	Done	Done
9	AMHERST	820130630000	THORNTONS FERRY RD OVER BEAVER BROOK	YES							
10	AMHERST	820130640000	BOSTON POST RD OVER BEAVER BROOK NORTH OF JONES	YES	8-Aug	YES	YES	Done	Done	Done	Done
11	AMHERST	820130930000	MANCHESTER RD OVER BEAVER BROOK		8-Aug	YES	YES	Done	Done	Done	Done
12	AMHERST	820130960000	BOSTON POST RD OVER SOUHEGAN RIVER	YES	8-Aug	YES	YES	Done	Done	Done	Done
13	HUDSON	222290217030	NH 102 (DERRY RD) AT LITCHFIELD TL	YES	27-Jun	YES	YES	Done	Done	Done	Done
14	HUDSON	822290300000	WEBSTER ST SOUTH OF ELM AVE	YES	20-Jun	YES	YES	Done	Done	Done	Done
15	HUDSON	822290410000	NH 102 (DERRY RD) NORTH OF EASY ST		20-Jun	YES	YES	Done	Done	Done	Done
16	HUDSON	822290423070	NH 111 (BURNHAM RD) NORTH OF CENTRAL ST (EB-WB) (8122	YES	31-Oct	YES	YES	Done	Done	Done	Done
17	HUDSON	822290440000	NH 3A (CENTRAL ST) WEST OF LIBRARY ST		13-Jun	YES	YES	Done	Done	Done	Done
18	HUDSON	822290510000	NH 111 (FERRY ST) EAST OF LIBRARY ST		13-Jun	YES	YES	Done	Done	Done	Done
19	HUDSON	822290545010	DRACUT RD AT MASS SL (SB-NB) (81229094-81229095)	YES	27-Jun	YES	YES	Done	Done	Done	Done
20	HUDSON	822290600000	KIMBALL HILL RD SOUTH OF NH 111	YES	24-Oct	YES	YES	Done	Done	Done	Done
21	HUDSON	822290690000	BELKNAP RD SOUTH OF CENTRAL ST	YES	24-Oct	YES	YES	Done	Done	Done	Done
22	HUDSON	822290863070	OLD DERRY RD EAST OF NH 102	YES	11-Jul	YES	YES	Done	Done	Done	Done
23	LITCHFIELD	822630120000	ALBUQUERQUE AVE NORTH OF PAGE RD	YES	27-Jun	YES	YES	Done	Done	Done	Done

Types of counts:

- **DOT: Required for HPMS (Highway Performance Monitoring System). Tuesday-Thursday, 24-hours, 15-minute intervals, no holidays**
  - ~120 locations/year on a 3-year rotating schedule

- **Local counts**
  - 32 total for 2022 in communities of Amherst, Hudson, Milford, Nashua and Pelham

- **Volume**

- **Classification**

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Volume

➢ Single tube in roadway, only counts number of vehicles passing a single point

➢ Can also be directional but requires two tubes

➢ Historically, 90% of all DOT counts were volume only

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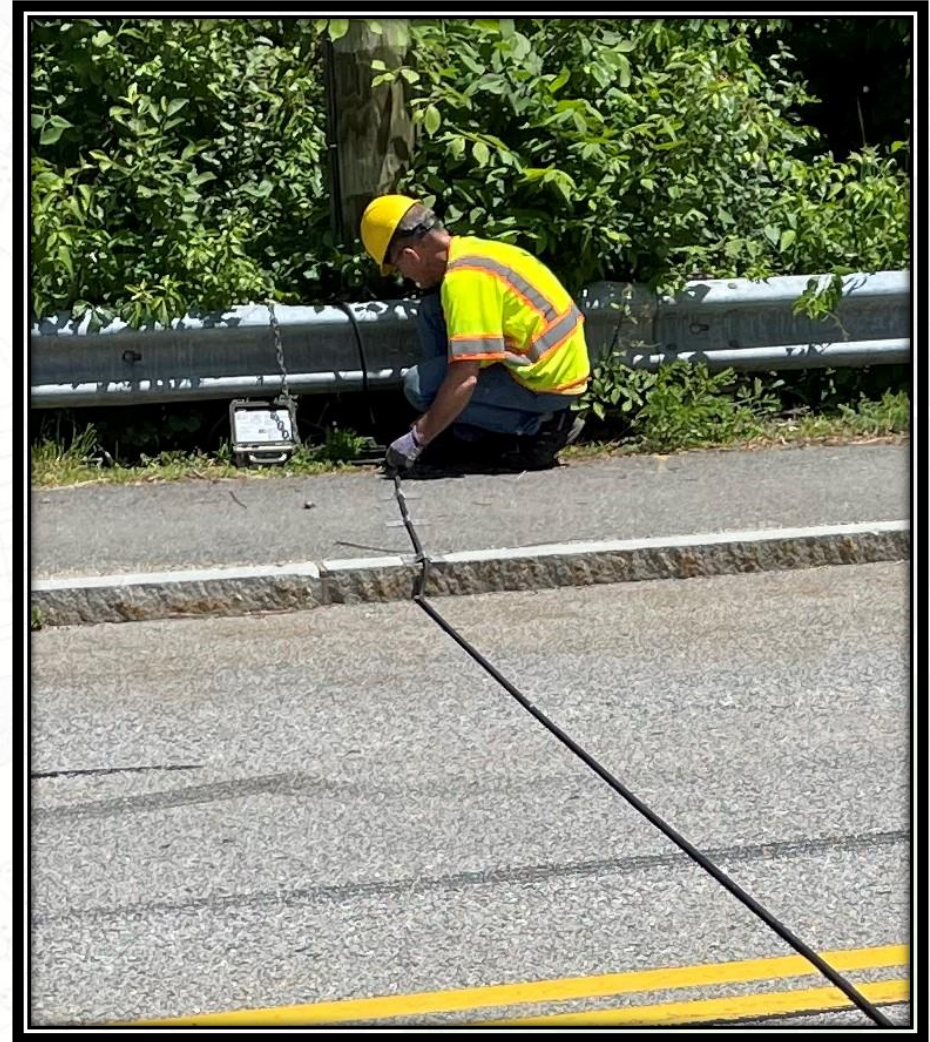
Classification

➢ Class counts require 2 tubes in the roadway

➢ Capable of collecting data for volume, speed, direction and vehicle type

➢ 13 different vehicle classifications

➢ Historically, 10% of all DOT counts were classification

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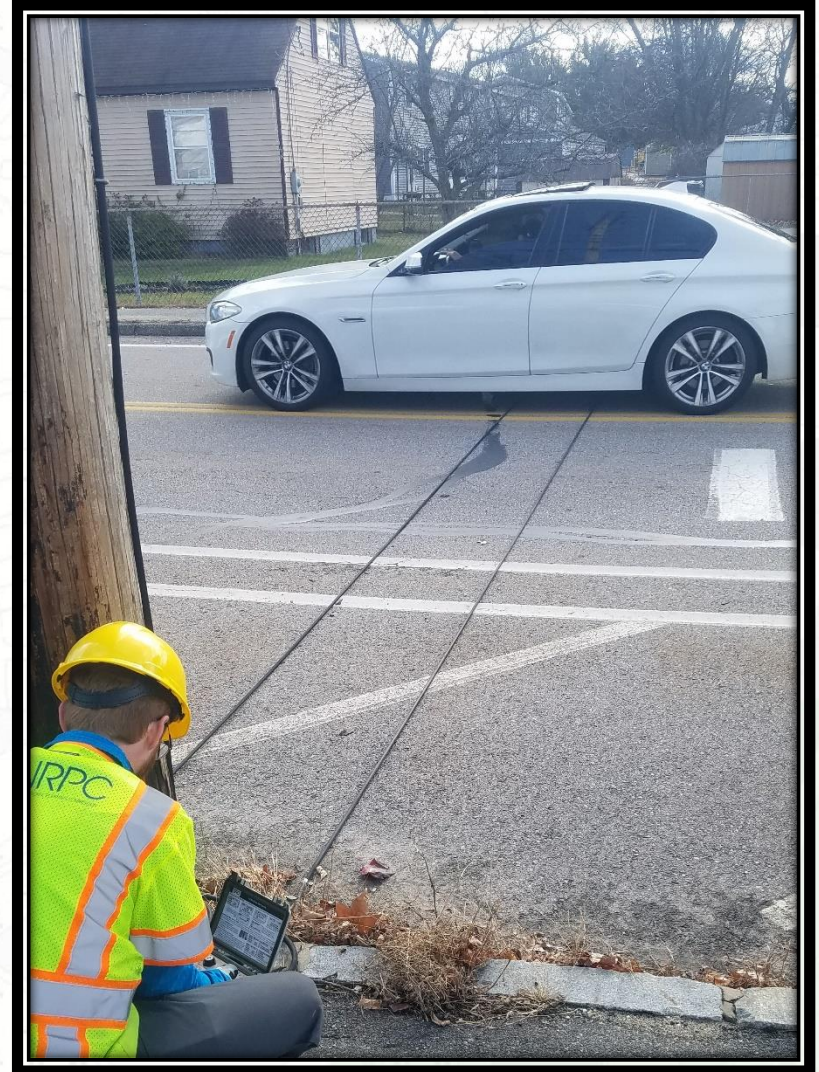
FHWA Vehicle Classifications

1. Motorcycles
2 axles, 2 or 3 tires

2. Passenger Cars
2 axles, can have 1- or 2-axle trailers

3. Pickups, Panels, Vans
2 axles, 4-tire single units
Can have 1 or 2 axle trailers

4. Buses
2 or 3 axles, full length

5. Single Unit 2-Axle Trucks
2 axles, 6 tires (dual rear tires), single-unit

6. Single Unit 3-Axle Trucks
3 axles, single unit

7. Single Unit 4 or More-Axle Trucks
4 or more axles, single unit

8. Single Trailer 3- or 4-Axle Trucks
3 or 4 axles, single trailer

9. Single Trailer 5-Axle Trucks
5 axles, single trailer

10. Single Trailer 6 or More-Axle Trucks
6 or more axles, single trailer

11. Multi-Trailer 5 or Less-Axle Trucks
5 or less axles, multiple trailers

12. Multi-Trailer 6-Axle Trucks
6 axles, multiple trailers

13. Multi-Trailer 7 or More-Axle Trucks
7 or more axles, multiple trailers

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What do we do with the data?

➢ **DOT HPMS count data is processed and sent to DOT staff to be entered into the Transportation Data Management System (MS2). The data is used to:**

- Generate AADT (Annual Average Daily Traffic)
- Analyze trends in traffic
- Create projections for future years

➢ **NRPC posts entire week of data through our website via the NRPC Traffic Count Viewer. Data can be viewed by anyone and contains traffic data from as far back as 2010**

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How it looks in the field
(STARnext)
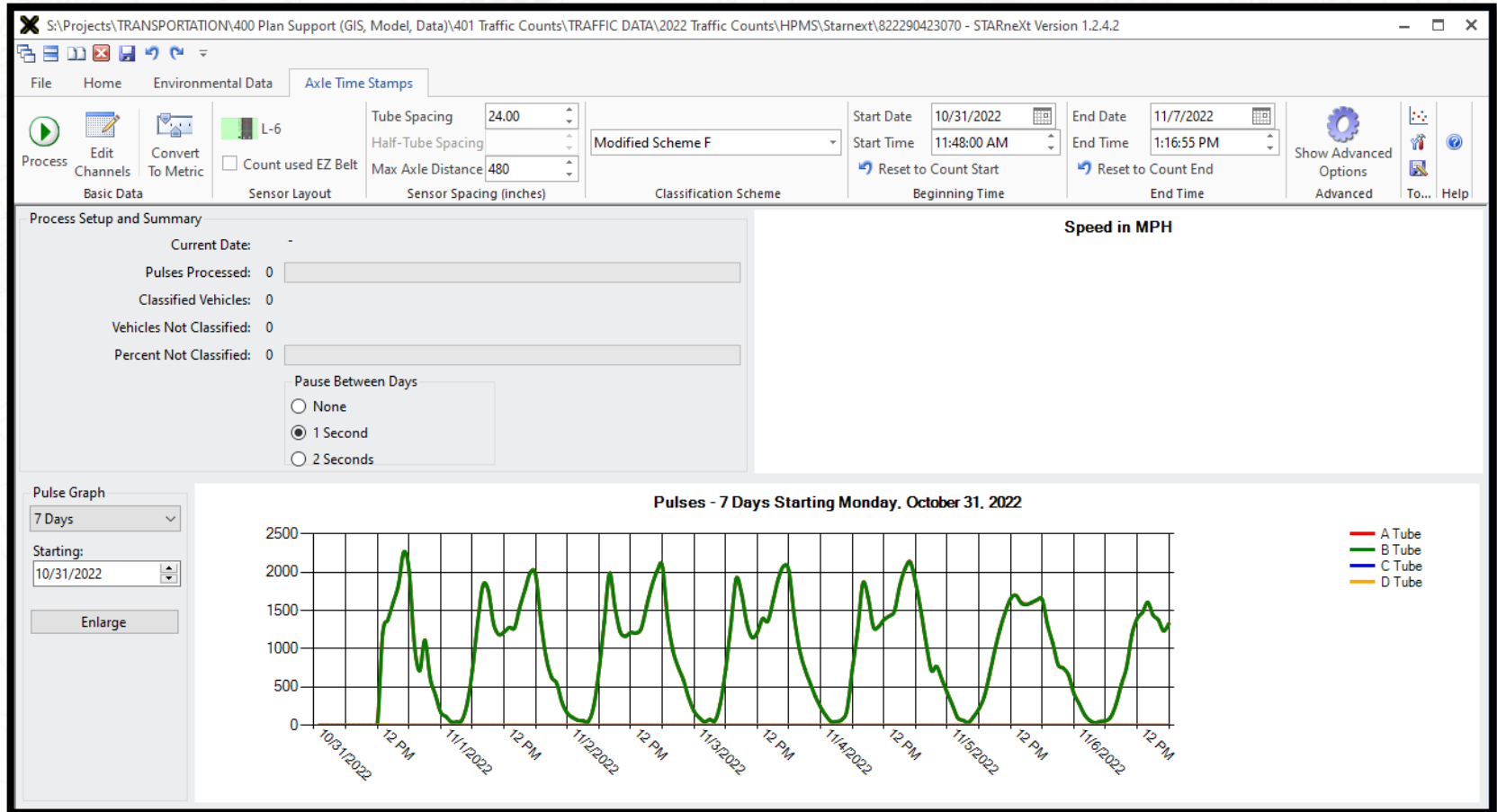
2022 Traffic Counting Summary

What we send to DOT (CSV file)

NH DOT Transportation Data Management System

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How we present the data on the viewer

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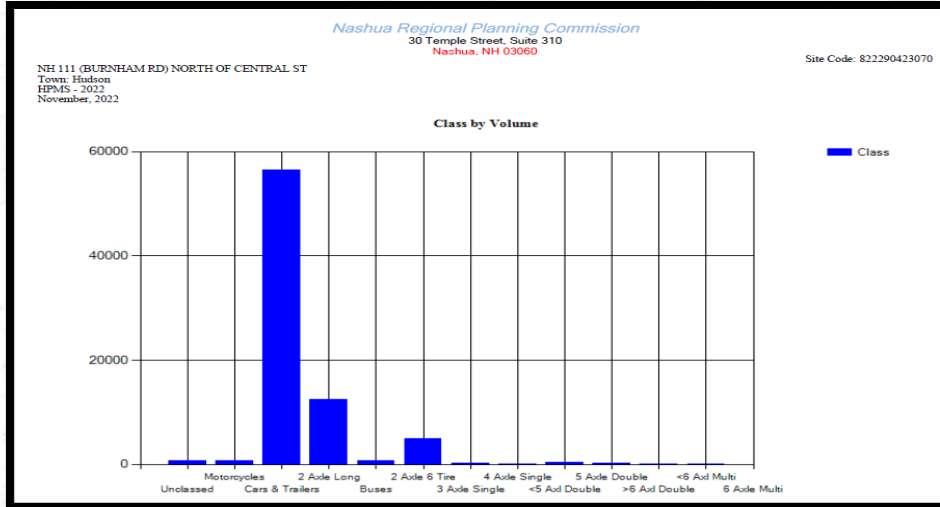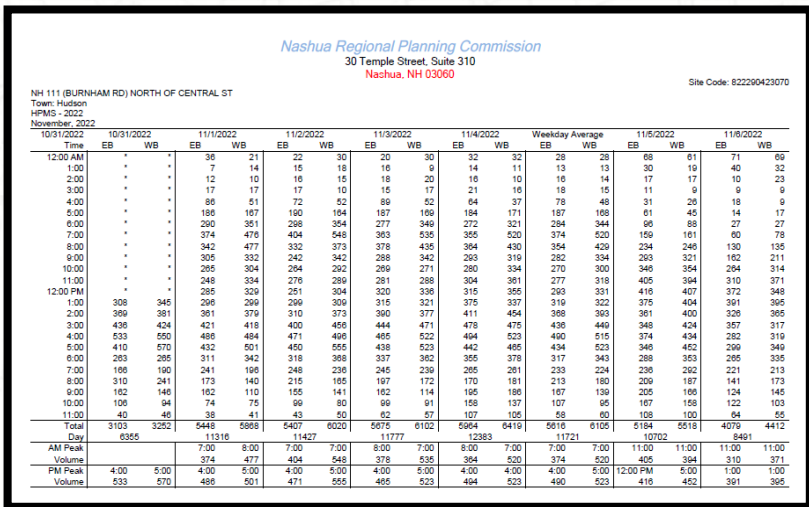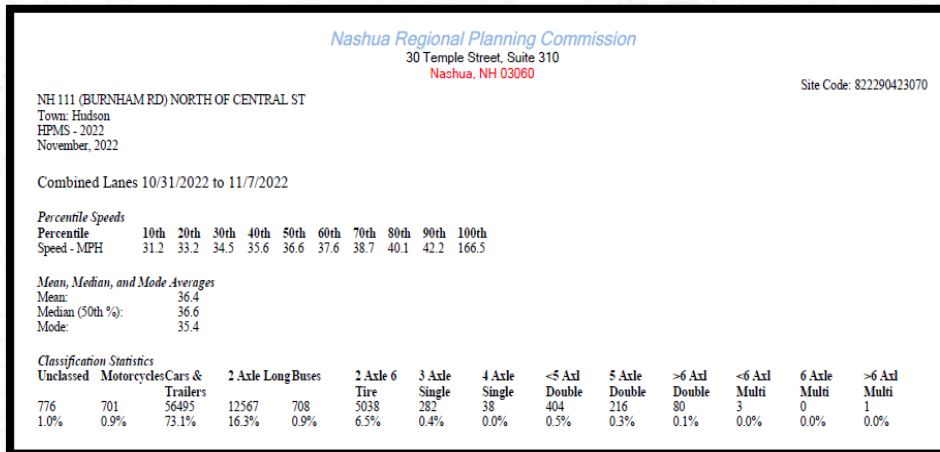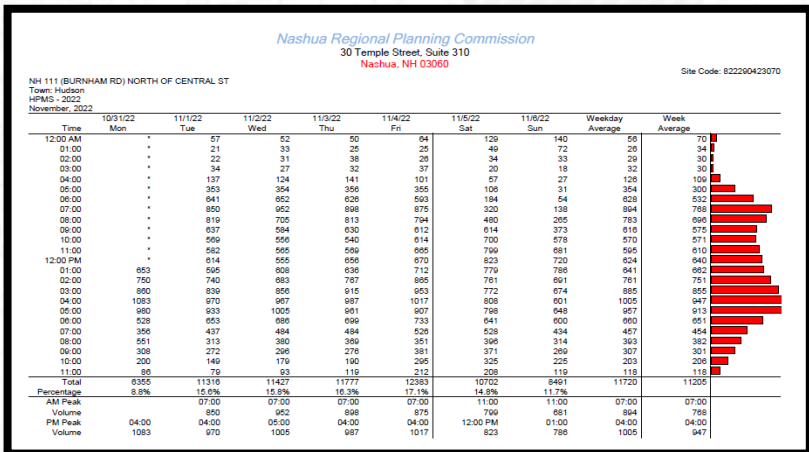
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NRPC Traffic Counts

https://www.nashuarpc.org/transportation/traffic_counts.php

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Fieldwork equipment

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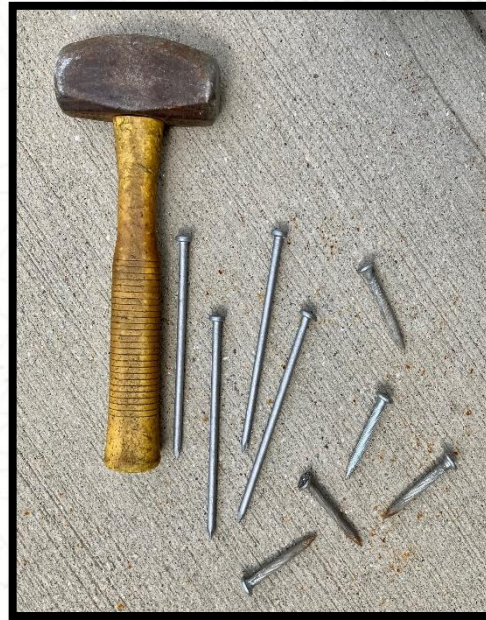
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Fieldwork safety
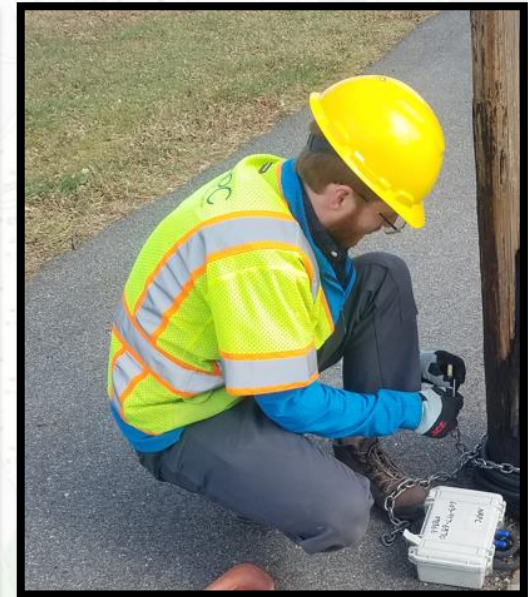
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Safety considerations

- **Distracted drivers**

- **Speeding**

- **Low visibility**
  - Large trucks and small cars
  - Inclement weather
  - Blind curves
  - Obstructions to view

- **Failure of operator to move over to a safe distance from our work zone**
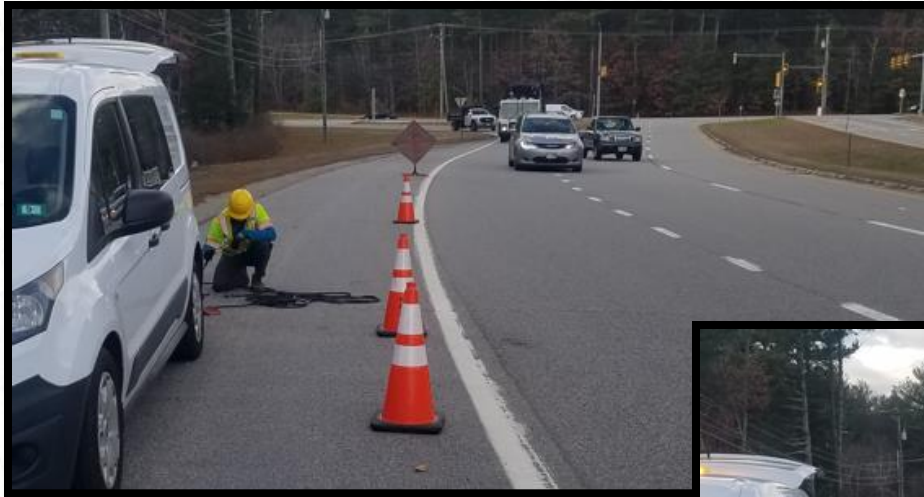
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Fieldwork safety

Fieldwork safety

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New for 2022

DOT increases class counts from 10% to 30% of total

37 class counts for 2022

How this affects NRPC fieldwork staff:

- Increased potential for bad counts/data (punctured, broken, or cut tubes, clips pulled from asphalt, counter box failure, etc.)

- Increased safety risks with more time in the roadway

- Need for more tubes, clips, nails, and counters

- Longer days out installing counters and collecting data

- Risk of incomplete data for the season

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The future of traffic counting

➢ **Leetron Vision AI-100 camera traffic counter**

- Collects class data using artificial intelligence technology

- Major safety improvement for most-hazardous locations reducing the amount of time spent in the road setting up counts

- Quick setup to save time

- NH DOT uses this technology for their traffic counts

- Future potential to collect bicycle/pedestrian data

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The future of traffic counts

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Thank you for your time!

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