

# DPW & YOU

— *Making a difference, together* —

## Riedel Road/Johns Hopkins Rd Traffic Committee Meeting

May 28, 2024 at 7 PM (Virtual)



[DPWandYOU.com](http://DPWandYOU.com)

# Agenda

1. Introductions
2. Slide Presentation
3. Questions and Answers
4. Next Steps

# Data Collection

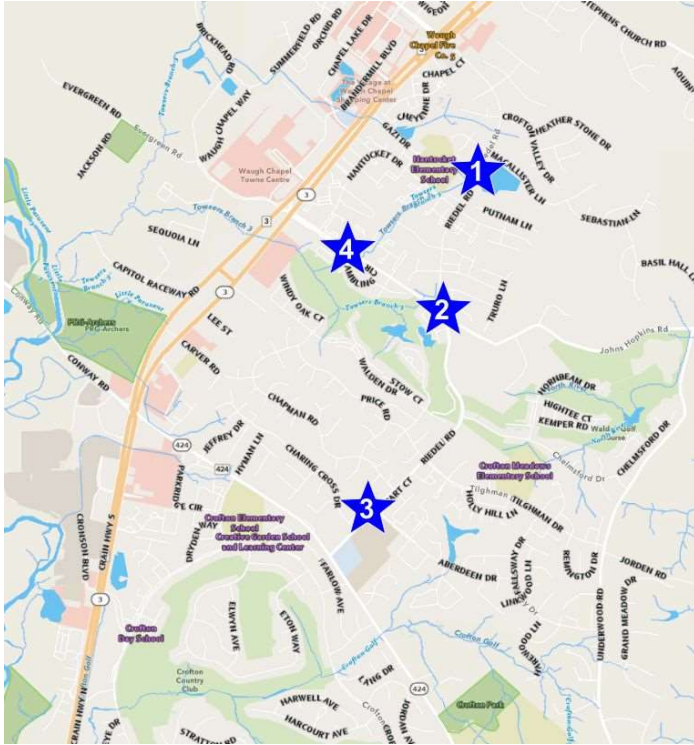
- Performed two data collection efforts
  - Fall of 2023 (December 11 - 17)
  - Spring 2024 (May 6 - 14)
- Fall of 2023
  - Used tubeless devices
  - Four locations
  - Not detailed vehicle classification
- Spring of 2024
  - Used tube counters
  - Six locations
  - More detailed vehicle classification

StatTrak

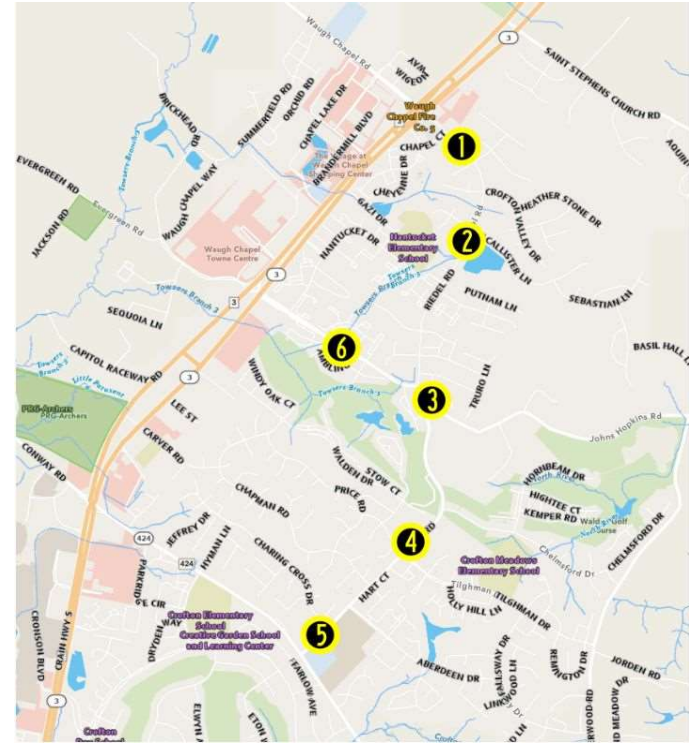


Tube Counter

# Data Collection - Locations



Fall 2023



Spring 2024



# Speed & Volume Summary

Year	Method	Location	Posted Speed Limit (mph)	Median Speed - 50% (mph)	Prevailing Speed - 85% (mph)	Average Daily Traffic (veh/day)
2024	Tube Count	1 - Chapel Court	35	32	38	11,682
2024	Tube Count	2 - Macallister Road	35	34	41	10,791
2024	Tube Count	3 - Between Johns Hopkins Road intersections	35	30	34	18,989
2024	Tube Count	4 - Chelmsford Drive	35	30	37	15,246
2024	Tube Count	5 - Charing Cross Drive	35	32	42	16,702
2024	Tube Count	6 - Johns Hopkins Road (western leg) midpoint	35	32	37	10,678
2023	Statrak	Location 1 - Riedel Rd south of Macallister Ln	35	37	41	10,861
2023	Statrak	Location 2 - Riedel Rd between Johns Hopkins Rd	35	34	38	16,164
2023	Statrak	Location 3 - Riedel Rd south of Aberdeen Dr	35	34	39	15,426
2023	Statrak	Location 4 - Johns Hopkins Rd west of Riedel Rd	35	39	44	8,456

## Vehicle Class Summary - Tube Counters

Location	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Total
<b>1</b>	322 2.5%	374 2.9%	3 .1%	11 1%	3 .1%	0 0%	0 0%	30 .3%	<b>743</b> <b>6.9%</b>
<b>2</b>	29 .2%	17 .1%	1 0%	4 .1%	1 0%	0 0%	0 0%	0 0%	52 .4%
<b>3</b>	35 .2%	22 .1%	0 0%	5 0%	2 .0%	0 0%	0 0%	1 0%	65 .3%
<b>4</b>	125 .8%	298 2.0%	1 0%	8 .1%	2 .1%	0 0%	0 0%	7 0%	441 3.0%
<b>5</b>	36 .2%	15 .1%	2 0%	3 0%	1 0%	0 0%	0 0%	1 0%	58 .3%
<b>6</b>	46 .4%	38 .4%	2 .1%	5 .2%	1 0%	0 0%	0 0%	10 .1%	102 1.2%

## Vehicle Class Summary - Tube Counters

Location	% Small (class 1)	% Medium (class 2-3)	% Large (class 4-12)	Average Daily Traffic (veh/day)
<i>Location 1</i> - Riedel Rd south of Macallister Ln	.1	98.1	1.8	10,861
<i>Location 2</i> - Riedel Rd between Johns Hopkins Rd	.8	97.2	2	16,164
<i>Location 3</i> - Riedel Rd south of Aberdeen Dr	.3	97.1	2	15,426
<i>Location 4</i> - Johns Hopkins Rd west of Riedel Rd	1	98	1	8,456



# Crash Summary

Anne Arundel County - Traffic Engineering Crash Summary Results												
RIEDEL RD ( 106 Crash Locations )												
Crash Dates From 2018 To 2022					Tuesday, November 07, 2023							
<b>Crash Years</b>		<b>Weather</b>		<b>Surface Condition</b>		<b>Road Condition</b>		<b>** Road Grade</b>				
2012	2013	2014	2015	2016	Clear/Cloudy	0	Wet	19	No Defects	105	Level	96
0	0	0	0	0	Foggy	1	Dry	82	Shoulder Defect	0	Hill Crest	3
2017	2018	2019	2020	2021	Raining	15	Snow	1	Holes, Ruts, etc	0	Hill Uphill	2
0	14	23	19	19	Snow/Sleet	0	Ice	0	Foreign Material	0	Grade Downhill	3
2022	2023	2024	2025	2026	Severe Winds	0	Mud, Dirt Gravel	0	Loose Material	0	Dip Sag	1
31	0	0	0	0	Clear	75	Slush	0	Obst - Not Lighted	0	On Bridge	0
<b>Day of Week</b>		<b>Light Condition</b>		<b>Collision Type</b>		<b>Road Character</b>		<b>** Road Alignment</b>				
Sunday	15	Daylight	70	Head On	3	Straight and Level	0	Straight	79			
Monday	12	Dawn/Dusk	0	Head On Left Turn	6	Straight and Grade	0	Curve Left	13			
Tuesday	14	Dark - Lights On	23	Same Dir - Rear End	31	Straight and Hill	0	Curve Right	14			
Wednesday	15	Dark - No Lights	4	Same Dir - Rear End Turn	0	Curve and Level	0	Other	0			
Thursday	18	Dawn	3	Same Dir - Rear LT Turn	1	Curve and Grade	0	Unknown	0			
Friday	20	Dusk	3	Opposite Dir - Sideswipe	2	Curve and Hill	0	Not Applicable	0			
Saturday	12	Dark - Unknown	0	Same Dir - Sideswipe	5	On Bridge	0	<b>** New Values for 2018 Data ONLY</b>				
Unknown	0	Other	1	Same Dir - Right Turn	8	Other	0					
<b>Event</b>		<b>Severity</b>		<b>Other</b>		<b>Discontinued</b>						
Other Vehicle	66	Not Injured	0	Single Vehicle	27	<b>Not Applicable</b>						
Parked Vehicle	8	Possible Injury	0	Other	8							
Pedestrian	4	Property Damage Only	67	Unknown	0							
Bicycle	2	Fatal	1	Not Applicable	1							
Animal	1											
Fixed Object	17											
Off Road	4											

2018-2022

## Riedel Rd

- One Fatality
- 106 crashes during the five year period
- 75% of the crashes involved another vehicle, the majority were rear end collision (39%)
- 6 crashes involving Peds/Bikes
- 64% of the crashes were property damage only, 36% of the crashes reported injuries
- **2022 Two through lanes Crash rate rank - 53/70**

## Johns Hopkins Rd

- 49 crashes during the five year period
- 57% of the crashes involved another vehicle, majority straight movement meets angle (38%)
- 1 crash involving Peds
- 61% of the crashes were property damage only, 39% of the crashes reported injuries
- **2022 Four lanes Crash rate rank - 10/21**



# Speed Limit Studies

## Four Different Approaches

1. *Statutory Speed Limit Approach* - As per Maryland State Law (21-801.1 2019 Maryland State Law)
2. *Engineering Approach* - Within the engineering approach there are two approaches:
3. *Expert System Approach* - Speed limits are suggested by a computer program that uses knowledge and inference procedures that simulate the judgment and behavior of speed limit experts (source ITE).
4. *Safe System Approach* - The primary criterion is the safety of all road users, including pedestrians and bicyclists that are more vulnerable to injury and death when hit by a vehicle.

## Riedel Rd & Johns Hopkins Rd (west of Riedel Rd)

*Recommend Speed Limits by different approaches:*

- A. Statutory Speed Limit – 30 mph
- B. Engineering Approach – 35 mph
- C. Expert System Approach – 35 mph
- D. Safe System Approach – 30 mph

**New Recommended Posted Speed Limit for Riedel Rd & Johns Hopkins Rd (west of Riedel Rd)**

**30 MPH**

# Traffic Operation Enhancements

## Riedel Road Ped Crossing Near Vineyard

- Short term
  - Upgrade existing trail crossing signs
  - Upgrade inground state law signs
  - Trim tree canopy
- Midterm
  - Enhance signing with rectangular rapid flashing beacon (RRFB)
    - Pedestrian activated



# Traffic Operation Enhancements

## Creation of No Thru Trucks over 5 Ton

- *Current data collection does not show oversize vehicles traffic out of the norm for an arterial.*
  - *Riedel Road - 7%*
  - *Riva Road - 10%*
  - *Forest Drive - 9%*
- *County will perform a more detailed study.*



# Traffic Operation Enhancements

## Establish Riedel Road and Johns Hopkins Rd as the County's first safe speed corridors

- *Engineering*
- *Education*
- *Enforcement*



# Safe Speed Corridors

## Engineering

- Short term
  - Lower speed limit to 30 mph (Supported by speed study)
  - Review existing speed signing placement and adjustment
  - Review existing warning signs
- Midterm
  - Speed Activated Signage (Permanent)
  - Medians
- Long term
  - Mini-roundabouts on Riedel?
  - John Hopkins Rd - Evaluate road diet





# Safe Speed Corridors

## Education

- Short term
  - Traffic Safety Education
    - Traffic Awareness Campaigns
      - Variable Message Signs (VMS)
      - Temporary speed feedback signs
      - Flyers/Newsletters/Email blasts



# Safe Speed Corridors

## Enforcement

- Short term
  - Police Target Enforcement as part of a Traffic Awareness Campaign
- Speed Cameras
  - Short Term
    - Create school zone for Riedel Road at McCallister/Powderhorn crossing to include in the first phase of speed camera program
    - Create a school zone for Johns Hopkins at Nantucket Dr pedestrian crossing. Crossing is within ½ mile of Nantucket Elementary School and Kiddie Academy
  - Midtem
    - Submit Riedel Road and Johns Hopkins as part of 2nd Phase of Speed Camera Program



# Questions?





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**DPW & YOU**



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**24-Hour Emergency Water Service:**  
(410) 222-8400  
**Billing Inquiries:** (410) 222-1144



## Bureau of Waste Management Services

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**Bulk Trash Service / Curbside Collections:** (410) 222-6100



## Bureau of Engineering

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**General Inquiries:** (410) 222-7500



## Bureau of Highways

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**General Inquiries:** (410) 222-7321  
**Snow Line:** (410) 222-4040  
**Email:** [hwyscustomercare@aacounty.org](mailto:hwyscustomercare@aacounty.org)



## Bureau of Watershed Protection and Restoration

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**General Inquiries:** (410) 222-4240

## Customer Relations

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**General Inquiries:** (410) 222-7582  
**Email:** [pwcust00@aacounty.org](mailto:pwcust00@aacounty.org)

