



# MEMO

<b>TO:</b>	Board of County Supervisors
<b>FROM:</b>	Jarad L. Phelps Chief of Police
<b>THRU:</b>	Christopher E. Martino County Executive
<b>DATE:</b>	November 10, 2020
<b>RE:</b>	Prince William County Traffic Safety Presentation November 17, 2020 – Board of County Supervisors

At the Board of County Supervisors meeting on May 12, 2020, the Police Department was issued Directive 20-29, relating to efforts to reduce speeding. This directive stemmed from a conversation regarding the fatal pedestrian accident that occurred on Cardinal Drive on May 1, 2020. Supervisor Angry wanted to know what efforts were being taken to reduce speeding in Prince William County. Additionally, Chair Wheeler asked the Police Department to explore the Vision Zero traffic program that Arlington County had adopted. Attached to this memo is a presentation, which includes findings and recommendations, that will be reviewed with the Board at its meeting on November 17, 2020. Also attached is the most recent speed study for Cardinal Drive.

The Police Department and the PW Department of Transportation will be available at the Board meeting for further clarification or discussion.

ATTACHMENTS:     PowerPoint Presentation: Traffic Safety  
                          Speed Study Summary: Cardinal Drive – Route 610

# Traffic Safety

Prince William County Police Department  
Response to Dir 20-29 / Efforts to reduce speeding

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## Current Efforts To Reduce Speeding (Supervisor Angry, DIR 20-29)

- ▶ Public Education/ Community Outreach
- ▶ Proactive Enforcement
- ▶ Crash Data/ Statistical Analysis
- ▶ Selective Targeted Enforcement

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## Public Education/Community Outreach

- ▶ Facebook live safety campaigns  
(Three Facebook live appearances)
- ▶ Public Announcements  
(683 messages posted on Facebook, Twitter, and Instagram)
- ▶ Media Releases  
(11 news releases to the media and public)
- ▶ Traffic Complaint Line  
(254 complaints received and addressed)

\* All stats throughout presentation based on 2019 DATA

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## Proactive Enforcement

- ▶ Tracker Enforcement  
(Problem areas monitored based on complaints)  
\*514 hours monitored, and 825 tickets issued
- ▶ RIMP Enforcement  
(Most dangerous intersections monitored based on crash data)  
\*6,626 hours monitored, and 2,203 tickets issued
- ▶ RADAR Enforcement  
\*12,047 hours monitored, and 20,448 tickets issued

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## Crash Data/ Statistical Analysis

- ▶ Day to day review of all crashes  
(Conducted by Crash Unit Supervisors)
- ▶ Annual review of reports identifying
  - Crashes (types and location)
  - Seatbelt use
  - Alcohol/Drug use
  - Pedestrian
- ▶ Traffic Safety Task Force  
(Meets quarterly/ Formed May 2020)

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## Traffic Safety Task Force Members

- ▶ **Prince William County Police**  
Traffic Safety Section
- ▶ **Prince William County Dept of Transportation**  
Traffic Safety Engineering Branch Manager/Safety Planner
- ▶ **Virginia Dept of Transportation**  
Safety Planner/Traffic Engineer
- ▶ **Virginia DMV**  
Program Manager, Highway Safety Office/ Law Enforcement Liaison/  
Multidisciplinary Crash Investigation Team
- ▶ **Virginia State Police**  
Multidisciplinary Crash Investigation Team

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## Selective Targeted Enforcement

- ▶ Grant Funded Enforcement/ Targeting 4 Areas
  - ▶ **Pedestrian/ Bicycle Safety**
    - \*119 hours monitored/35 Pedestrian and 12 bicycle violations
  - ▶ **Speed**
    - \*489 hours monitored/977 total violations cited,688 for speeding
  - ▶ **Alcohol**
    - \*2,559 hours monitored/154 arrest for DUI, 385 various citations, and 12 Felony arrest
  - ▶ **Occupant Protection (Seatbelt/Child Safety)**
    - \*575 hours monitored/ 1,067 total violations cited,101 for seat belt/child restraint

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## Cardinal Drive Enforcement Strategies

(Supervisor Angry, DIR 20-29)

- ▶ In 2019, Cardinal Drive had over 400 hours of recorded enforcement and 825 citations were issued
- ▶ This year between 01/01/20 and 08/19/20, there has been over 300 hours of recorded enforcement and 341 citations have been issued
- ▶ A speed study was conducted by PWCDOT at the request of the Prince William County Police (attached). The results indicated the majority of drivers comply with the posted speed limit
- ▶ Recommendation is to increase targeted enforcement and have a no tolerance approach for speeding

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## VDOT

- ▶ VDOT is helping reduce crashes and associated deaths and injuries by deploying eight systemic safety counter measures at various locations (Overview attached)
  - ▶ High - Visibility backplates/ on traffic lights
  - ▶ Flashing yellow turn arrows
  - ▶ Curve signs
  - ▶ Pedestrian Crossings
  - ▶ Edgeline Rumble Strips
  - ▶ Centerline Rumble Strips
  - ▶ Shoulder Wedges
  - ▶ Unsignalized Intersections

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## Vision Zero

(Supervisor Wheeler, DIR 20-29)

- ▶ Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all. First implemented in Sweden in the 1990s, Vision Zero has proven successful across Europe. It has been gaining momentum in the US and has been adopted by over 40 jurisdictions nationwide, local participants include: City of Alexandria, Arlington County, Montgomery County, and DC
  - ▶ It revolves around four basic principles:
    - ❖ Control speed
    - ❖ Ensure equality during enforcement
    - ❖ Engage the community
    - ❖ Establishes a plan that collects data and has a clear evaluation process.

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## Vision Zero Recommendations

- ▶ Community outreach
- ▶ Conduct Crash / Traffic Safety Research and Collect Data
- ▶ Create an action plan
- ▶ Create a Vision Zero task force
- ▶ Focus on Speed Management
- ▶ Prioritize Roadway Design
- ▶ Establish Actionable strategies  
(such as road reconfiguration or speed cameras)

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## Vision Zero Roadblocks for Prince William County

- ▶ Participation requires a rail mass transit system linked around the County
- ▶ Participation in this initiative requires the jurisdiction to have authority over most of its roadways, currently we do not have authority over most of our roads and the cost to obtain that authority according to PWCDOT would be prohibitive
- ▶ The program is designed for city areas with heavy pedestrian foot traffic as opposed to our suburban areas

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## Vision Zero Overview

- ▶ PWC does not have authority over our roads in the same way places like Arlington, Alexandria, and DC have. Cost to obtain authority is prohibitive
- ▶ Vision Zero would require mass transit
- ▶ In concept Vision Zero is a great program, but it is not practical to implement such a program here
- ▶ Our current enforcement efforts are already in line with the Vision Zero principles

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## Recommendations Going Forward

Continue our current path and continue to explore new traffic options

- ▶ Traffic Safety task force meets quarterly/ Collaborative problem solving and solutions
- ▶ Dashboard heat maps reviewed quarterly for crash patterns and problem areas
- ▶ Facebook live safety campaigns
- ▶ Public announcements
- ▶ Traffic complaint line

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## Recommendations Going Forward Cont.

Continue our current path and continue to explore new traffic options

- ▶ Tracker Enforcement (Problem areas based on complaints)
- ▶ RIMP Enforcement (Most dangerous intersections based on crash data)
- ▶ RADAR Enforcement
- ▶ Consider new enforcement efforts such as speed cameras in school zones

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## Thank You



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# PRINCE WILLIAM COUNTY

## Speed Study Summary Cardinal Drive - Route 610 06/2020

At the request of the Prince William County Police Department (PWPD), the Prince William County Department of Transportation (PWCDOT) conducted speed studies at three locations on Cardinal Drive. The studies took place between May 14, 2020 and June 17, 2020. The posted speed limit for Cardinal Drive is 45 MPH and VDOT classifies Cardinal Drive as a Minor Arterial.

The maps below show the approximate locations where each speed study was conducted. The daily traffic count and the Average Daily Traffic Count (ADT) for each study location is given in the table below. The daily average speed and the daily eight-fifth percentile speeds for each day can also be found in the tables.

### **Dale City Moose Lodge, 15424 Cardinal Drive**

Speed studies were conducted on both approaches to the Dale City Moose Lodge, 15424 Cardinal Drive from May 14, 2020 to May 21, 2020. The VDOT 2019 Average Annual Daily Traffic count for this section of road is 19,000 vehicles per day.

In the eastbound direction, an average daily traffic count of 5,517 vehicles per day was recorded with an average speed of 45.3 MPH (85<sup>th</sup> percentile speed = 49.6 MPH). See Table 1.

**Table 1:** Cardinal Drive eastbound approach to the Moose Lodge at 15424 Cardinal Drive.

<b>Date</b>	<b>Daily Traffic Volume (vehicles per day)</b>	<b>Average Speed (MPH)</b>	<b>85<sup>th</sup> Percentile Speed (MPH)</b>
14-May	5,336	45.3	49.6
15-May	6,192	45.9	50.2
16-May	5,641	45.9	50.2
17-May	4,585	45.9	49.6
18-May	5,512	45.3	49
19-May	5,526	45.3	49.6
20-May	5,614	45.3	49.6
21-May	5,742	45.3	50.2
<b>Average</b>	<b>5,517</b>	<b>45.3</b>	<b>49.6</b>

In the westbound direction, an average daily traffic count of 4,683 vehicles per day was recorded with an average speed of 45.3 MPH (85<sup>th</sup> percentile speed = 49.6 MPH). See Table 2.

**Table 2:** Cardinal Drive eastbound approach to the Moose Lodge at 15424 Cardinal Drive.

Date	Daily Traffic Volume (vehicles per day)	Average Speed (MPH)	85 <sup>th</sup> Percentile Speed (MPH)
14-May	4,259	40.9	45.9
15-May	5,305	41.5	46.5
16-May	5,004	41.5	46.5
17-May	3,875	41.5	46.5
18-May	4,258	41.5	45.9
19-May	4,692	42.2	47.1
20-May	4,817	44.6	49.6
21-May	5,255	45.3	49.6
<b>Average</b>	<b>4,683</b>	<b>45.3</b>	<b>49.6</b>



**Figure 1:** Location of the speed studies conducted near the Moose Lodge, 15424 Cardinal Drive.

### **Benita Fitzgerald Drive Intersection**

Speed studies were conducted on the approaches to the intersection of Benita Fitzgerald Drive, from May 27, 2020 to June 4, 2020. The VDOT 2019 Average Annual Daily Traffic count for this section of road is 18,000 vehicles per day.

In the eastbound direction, an average daily traffic count of 6,474 vehicles per day was recorded with an average speed of 38.4 MPH (85<sup>th</sup> percentile speed = 44 MPH). See Table 3.

**Table 3:** Cardinal Drive eastbound approach to Benita Fitzgerald Drive.

<b>Date</b>	<b>Daily Traffic Volume (vehicles per day)</b>	<b>Average Speed (MPH)</b>	<b>85<sup>th</sup> Percentile Speed (MPH)</b>
27-May	6,401	38.4	44
28-May	6,146	38.4	44
29-May	7,091	37.8	43.4
30-May	6,737	37.8	44
31-May	6,156	38.4	44
1-Jun	6,438	38.4	44
2-Jun	6,269	38.4	44
3-Jun	6,310	38.4	44
4-Jun	6,716	38.4	44
<b>Average</b>	<b>6,474</b>	<b>38.4</b>	<b>44</b>

In the westbound direction, an average daily traffic count of 6,192 vehicles per day was recorded with an average speed of 41.5 MPH (85<sup>th</sup> percentile speed = 46.5 MPH). See Table 4.

**Table 4:** Cardinal Drive westbound approach to Benita Fitzgerald Drive.

<b>Date</b>	<b>Daily Traffic Volume (vehicles per day)</b>	<b>Average Speed (MPH)</b>	<b>85<sup>th</sup> Percentile Speed (MPH)</b>
27-May	5,955	41.5	46.5
28-May	5,606	41.5	46.5
29-May	6,963	41.5	46.5
30-May	6,521	41.5	46.5
31-May	5,630	41.5	47.1
1-Jun	6,210	42.2	47.1
2-Jun	6,014	41.5	47.1
3-Jun	6,639	41.5	46.5
<b>Average</b>	<b>6,192</b>	<b>41.5</b>	<b>46.5</b>



**Figure 2:** Location of the speed studies conducted near the Bernita Fitzgerald Drive intersection.

### Waterway Drive Intersection

Speed studies were conducted on the approaches to the intersection of Waterway Drive, from June 13, 2020 to June 17, 2020. The VDOT 2019 Average Annual Daily Traffic count for the section of road west of Waterway Drive is 24,000 vehicles per day, while the VDOT 2019 Average Annual Daily Traffic count for the section of road east of Waterway Drive is 19,000 vehicles per day.

In the eastbound direction, an average daily traffic count of 8,154 vehicles per day was recorded with an average speed of 45.3 MPH (85<sup>th</sup> percentile speed = 50.2 MPH). See Table 5.

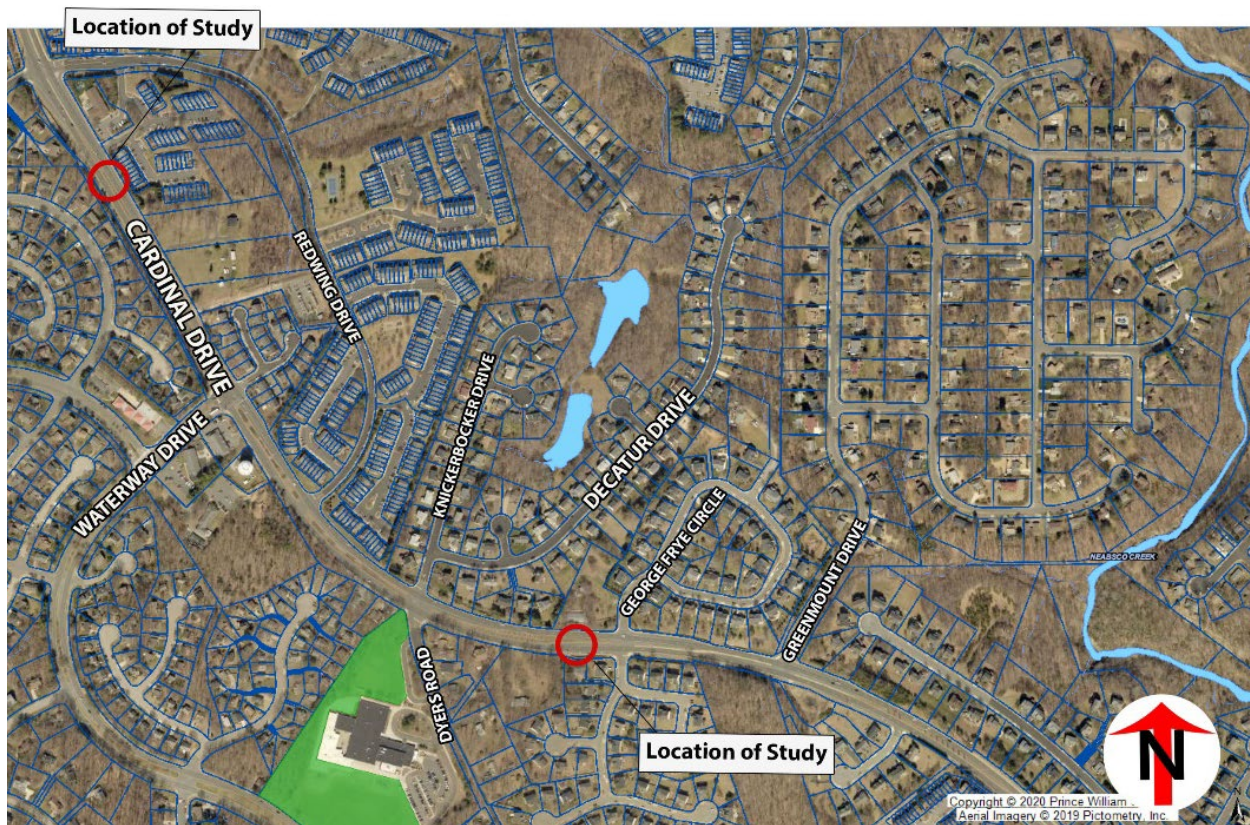
**Table 5:** Cardinal Drive eastbound approach to Waterway Drive.

Date	Daily Traffic Volume (vehicles per day)	Average Speed (MPH)	85 <sup>th</sup> Percentile Speed (MPH)
13-Jun	8,681	45.3	50.2
14-Jun	7,364	45.3	50.2
15-Jun	8,382	45.3	50.2
16-Jun	8,546	45.9	50.2
17-Jun	7,795	45.3	49.6
<b>Average</b>	<b>8,154</b>	<b>45.3</b>	<b>50.2</b>

In the westbound direction, an average daily traffic count of 6,421 vehicles per day was recorded with an average speed of 47.1 MPH (85<sup>th</sup> percentile speed = 51.5 MPH). See Table 6.

**Table 6:** Cardinal Drive westbound approach to Waterway Drive.

Date	Daily Traffic Volume (vehicles per day)	Average Speed (MPH)	85 <sup>th</sup> Percentile Speed (MPH)
13-Jun	7,115	46.5	50.9
14-Jun	6,150	46.5	50.9
15-Jun	6,680	46.5	51.5
16-Jun	6,709	47.1	51.5
17-Jun	5,452	46.5	51.5
<b>Average</b>	<b>6,421</b>	<b>47.1</b>	<b>51.5</b>



**Figure 3:** Location of the speed studies conducted near the Waterway Drive intersection.

## Recommendations Going Forward Cont.

Continue our current path and continue to explore new traffic options

- ▶ Tracker Enforcement (Problem areas based on complaints)
- ▶ RIMP Enforcement (Most dangerous intersections based on crash data)
- ▶ RADAR Enforcement
- ▶ Consider new enforcement efforts such as speed cameras in school zones

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## Thank You



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