

# Woodward Heights Traffic Analysis

400 feet east of Indiana

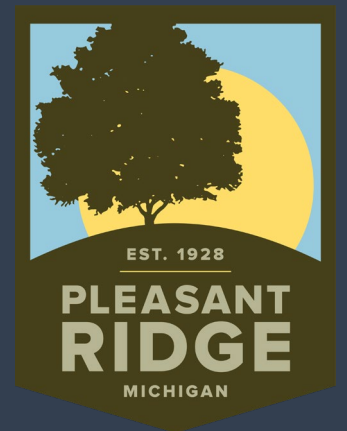
April 21-28, 2015

June 12-17, 2020

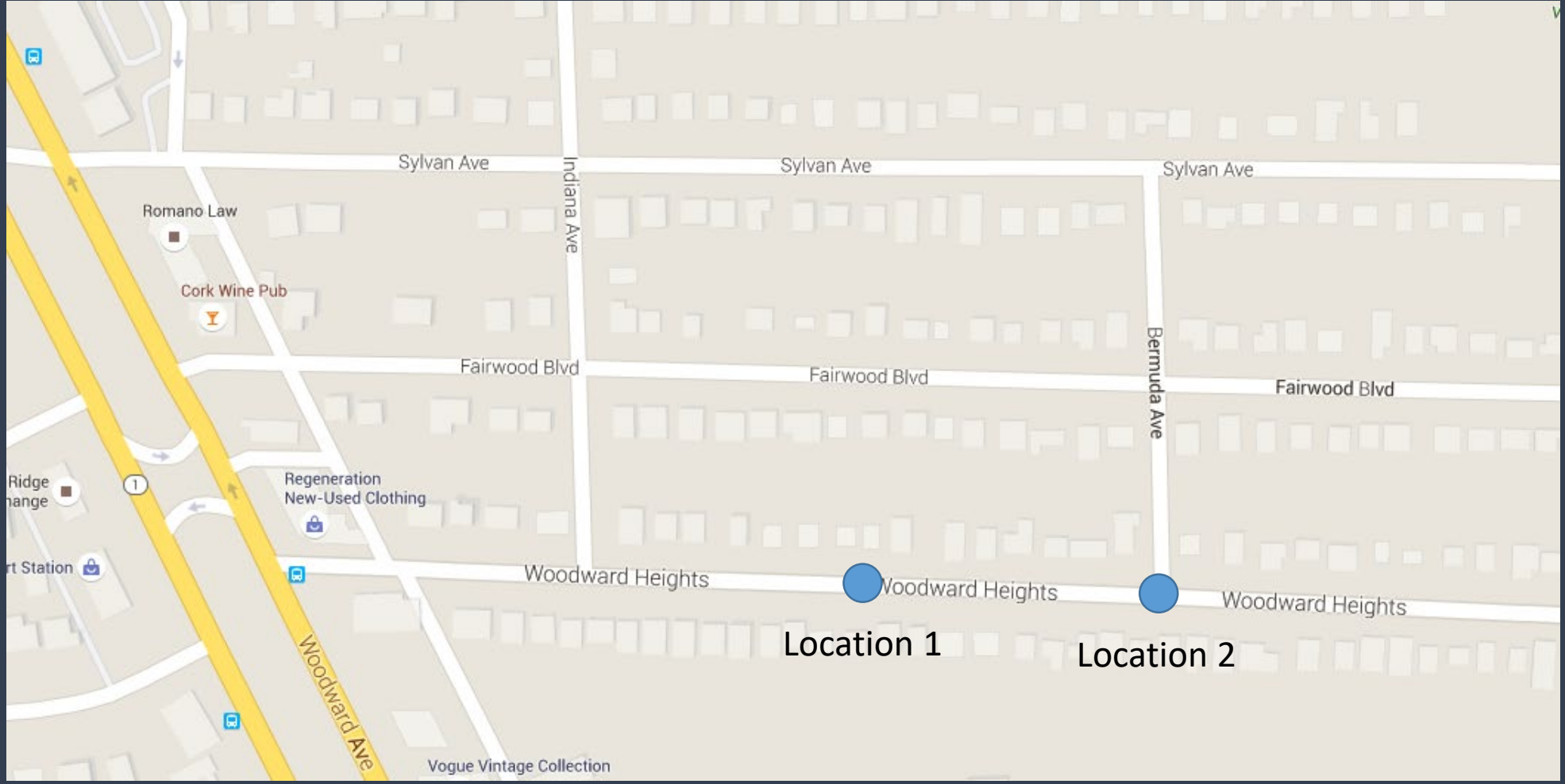
July 28-29, 2020

At Bermuda

July 31 – August 5, 2020



# Count Locations



# Bottom Line Up Front

- Vehicle speed did not increase during test
  - *Speeds unchanged at location 1*
- @ Bermuda – average speed was 23.5 mph
  - *Stop sign removal did not result in excessive speed through intersection*

# Key Data

*AM peak hour is 11am – noon, and PM peak hour is 5-6pm*

	<b>1: Mid-Block</b>	<b>2: at Bermuda</b>
Average Daily Traffic (weekday)	2,622	2,319
Average Daily Trucks	39	32
Average Speed	25.4 mph	23.5 mph
85 <sup>th</sup> Percentile Speed	29.0 mph	27.0 mph
% over 25 mph	46.6%	30.1%
% over 30 mph	12.9%	7.1%
% over 35 mph	2.3%	1.2%

# Detailed Analysis Location 1

Between Indiana & Bermuda

# Key Data

*AM peak hour is 11am – noon, and PM peak hour is 5-6pm*

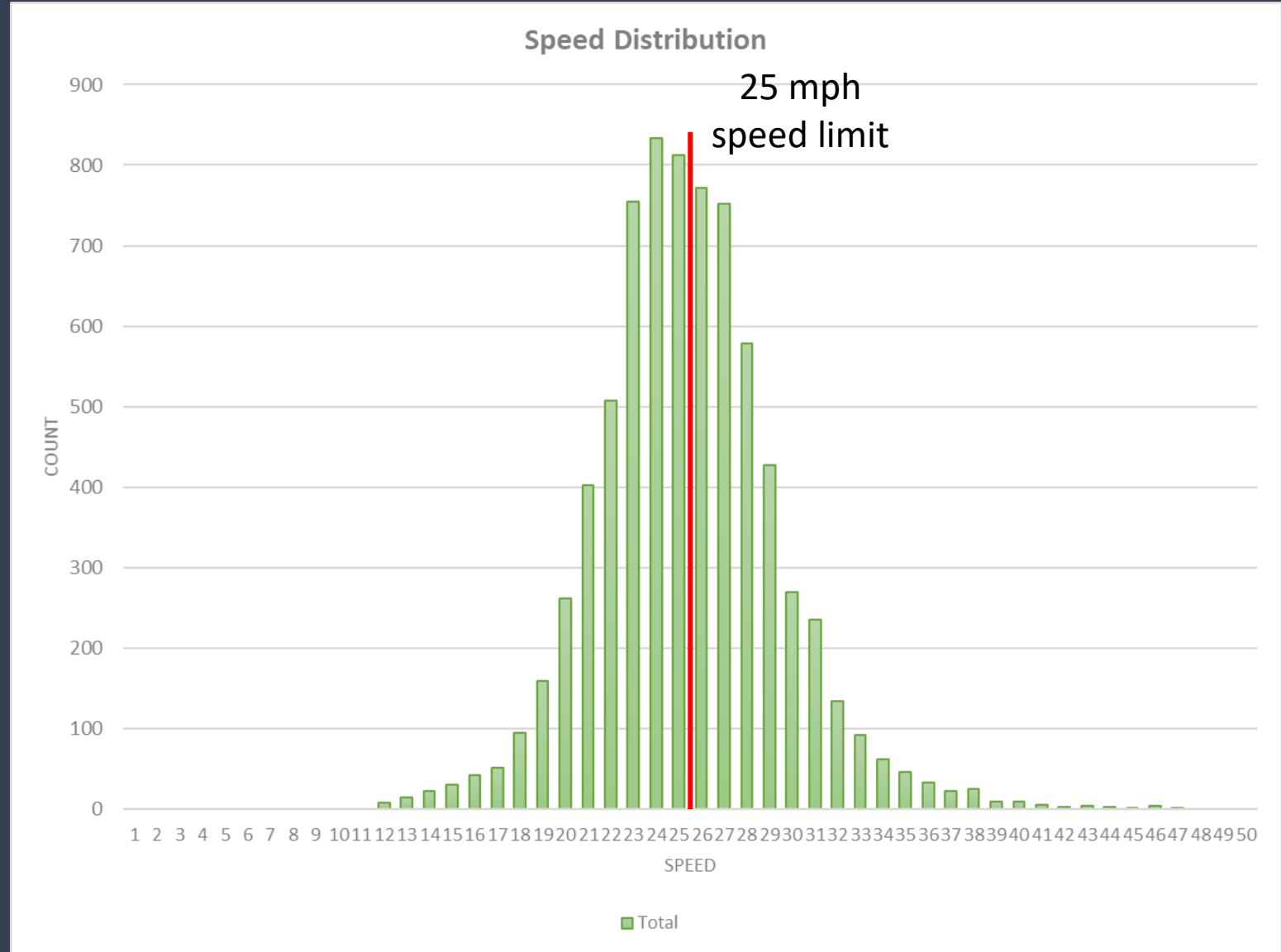
	May 2015	June 2020	July 2020
Average Daily Traffic (weekday)	2,854	2,354	2,622
AM Peak Hour Vol. (weekday)	228	163	177
PM Peak Hour Vol. (weekday)	306	225	236
Average Daily Trucks	18	52	39
Average Speed	26.2 mph	25.2 mph	25.4 mph
85 <sup>th</sup> Percentile Speed	29.9 mph	29.0 mph	29.0 mph
% over 25 mph	54.7%	45.6%	46.6%
% over 30 mph	16.4%	11.7%	12.9%
% over 35 mph	3.8%	1.8%	2.3%

# July 2020 Data

*AM peak hour is 11am – noon, and PM peak hour is 5-6pm*

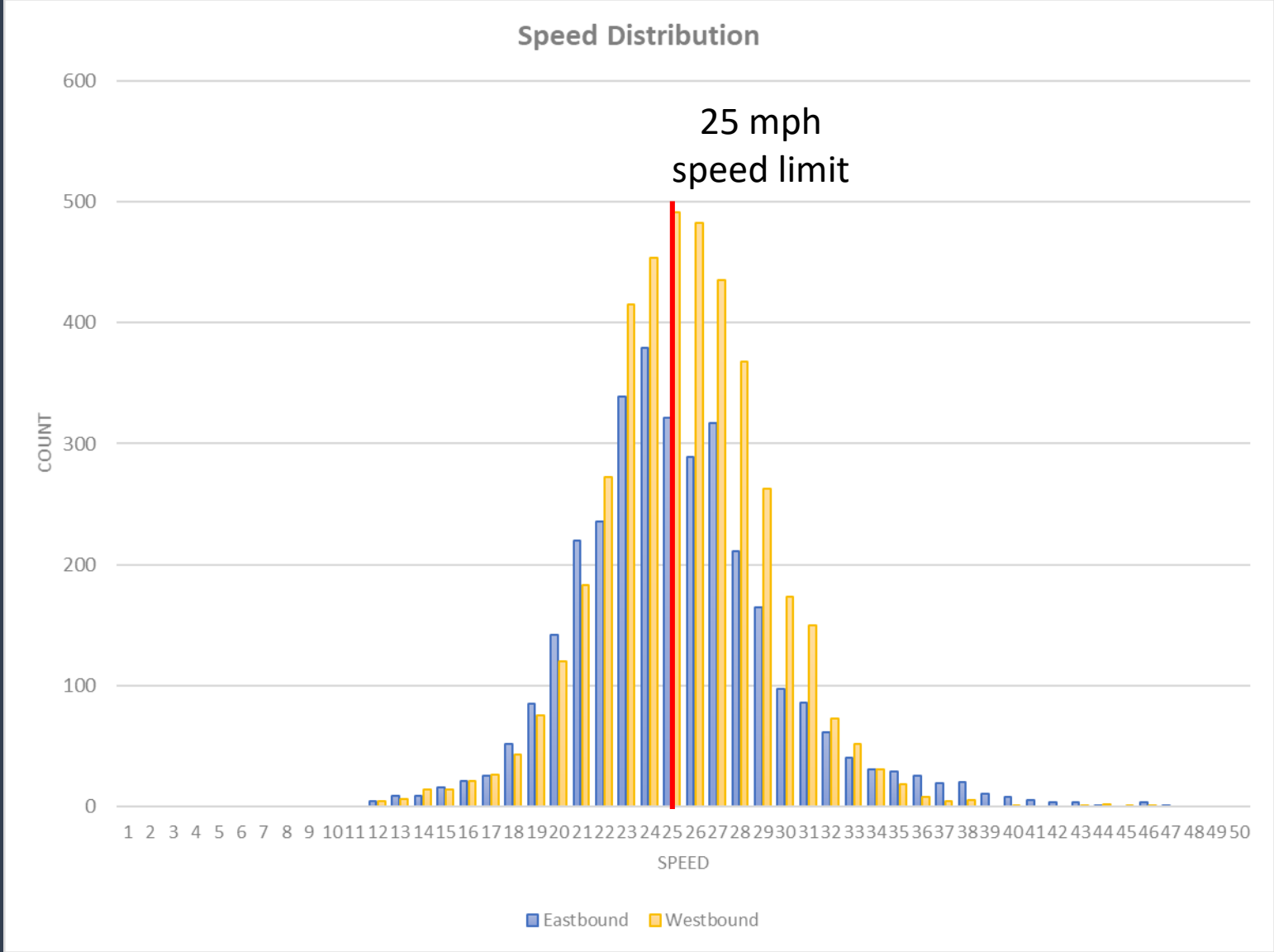
	Eastbound	Westbound	Total
Average Daily Traffic (weekday)	1,160	1,462	2,622
AM Peak Hour Vol. (weekday)	81	96	177
PM Peak Hour Vol. (weekday)	113	123	236
Average Daily Trucks	12	27	39
Average Speed	25.3 mph	25.5 mph	25.4 mph
85 <sup>th</sup> Percentile Speed	29.0 mph	29.0 mph	29.0 mph
% over 25 mph	43.4%	49.2%	46.6%
% over 30 mph	13.5%	12.4%	12.9%
% over 35 mph	3.9%	1.0%	2.3%

# Speed Distribution





Speed Distribution:  
East and Westbound

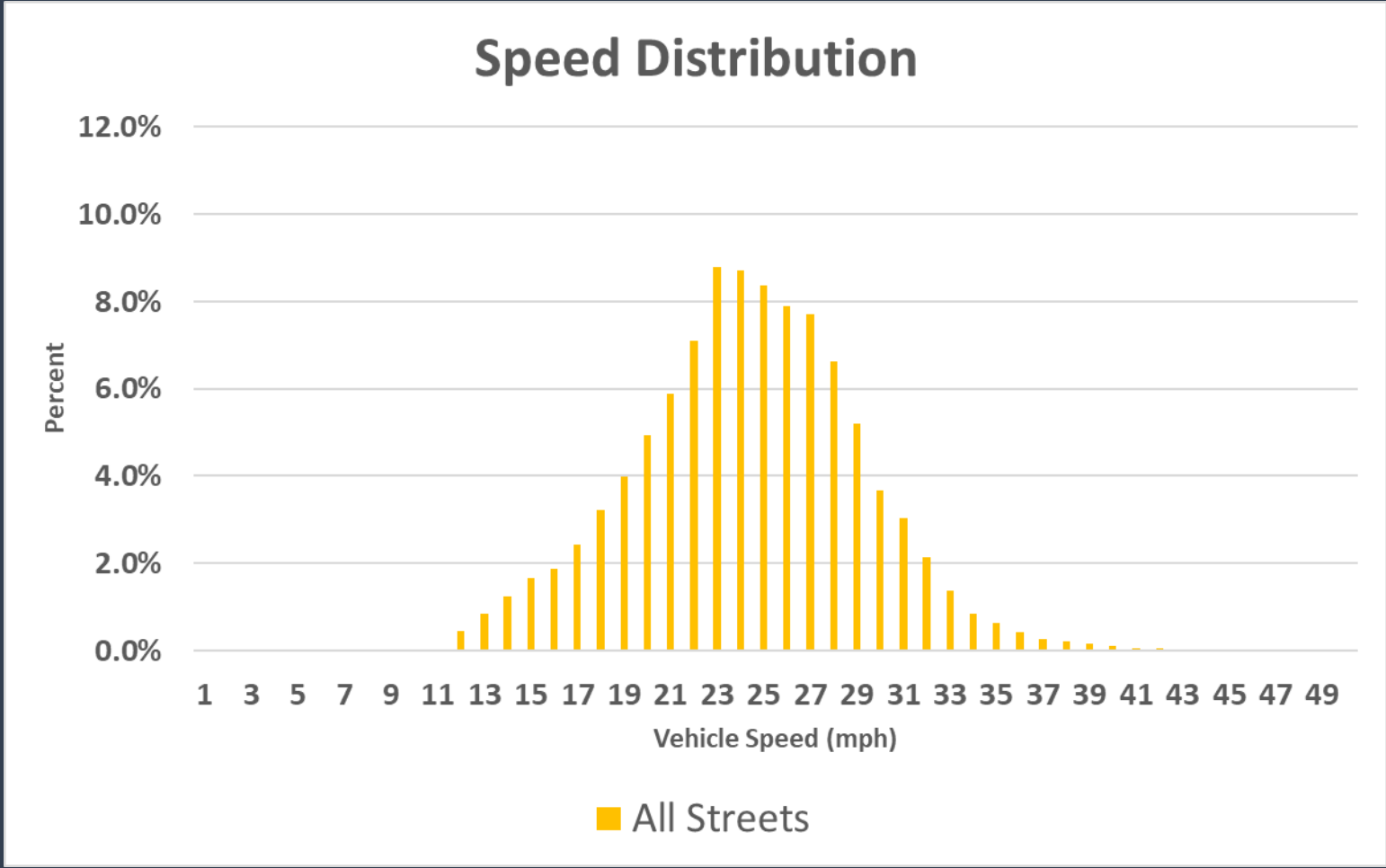


# Primary Takeaways

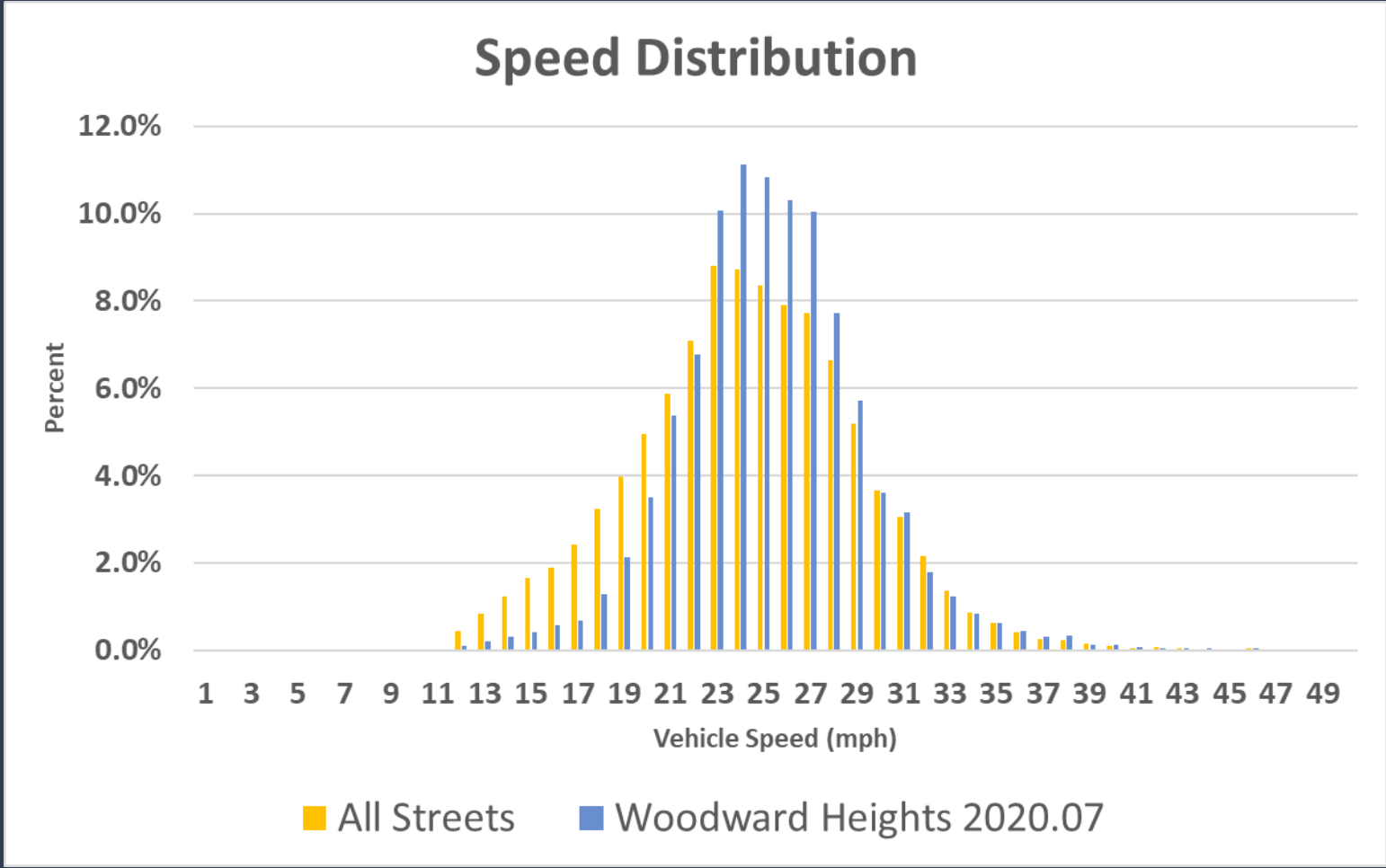
- Speeds did not significantly change during the test
- Average speed is 25.4 mph
  - *Bermuda stop sign removal has not caused increased speed*
- Volumes are below 2015 levels
  - *pandemic likely cause of reduced volume*
  - *volume increased by 300 cars from June to July – due to economy restarting?*

# Comparative Data

# Average Speed Distribution

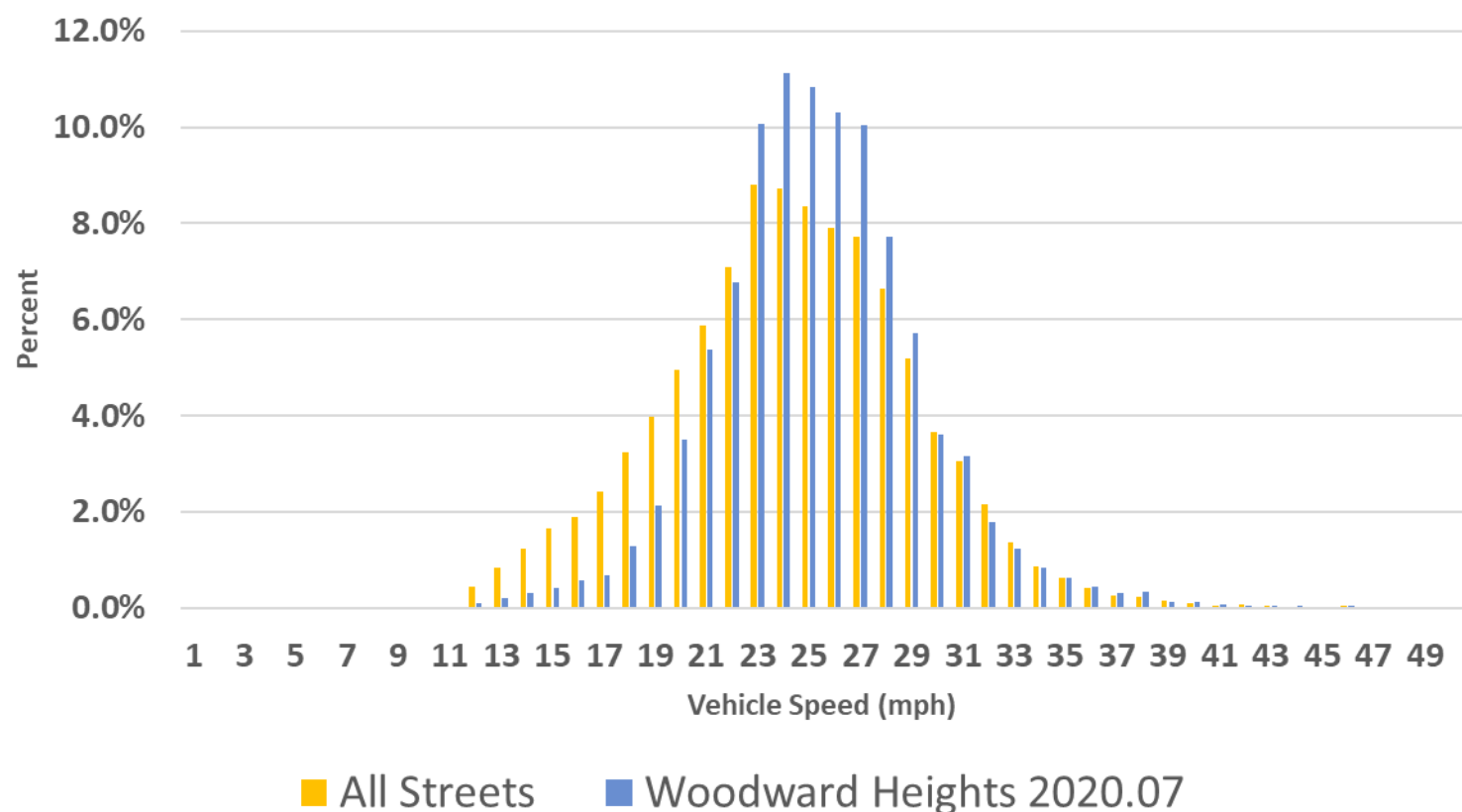


# Comparison to Average PR Street



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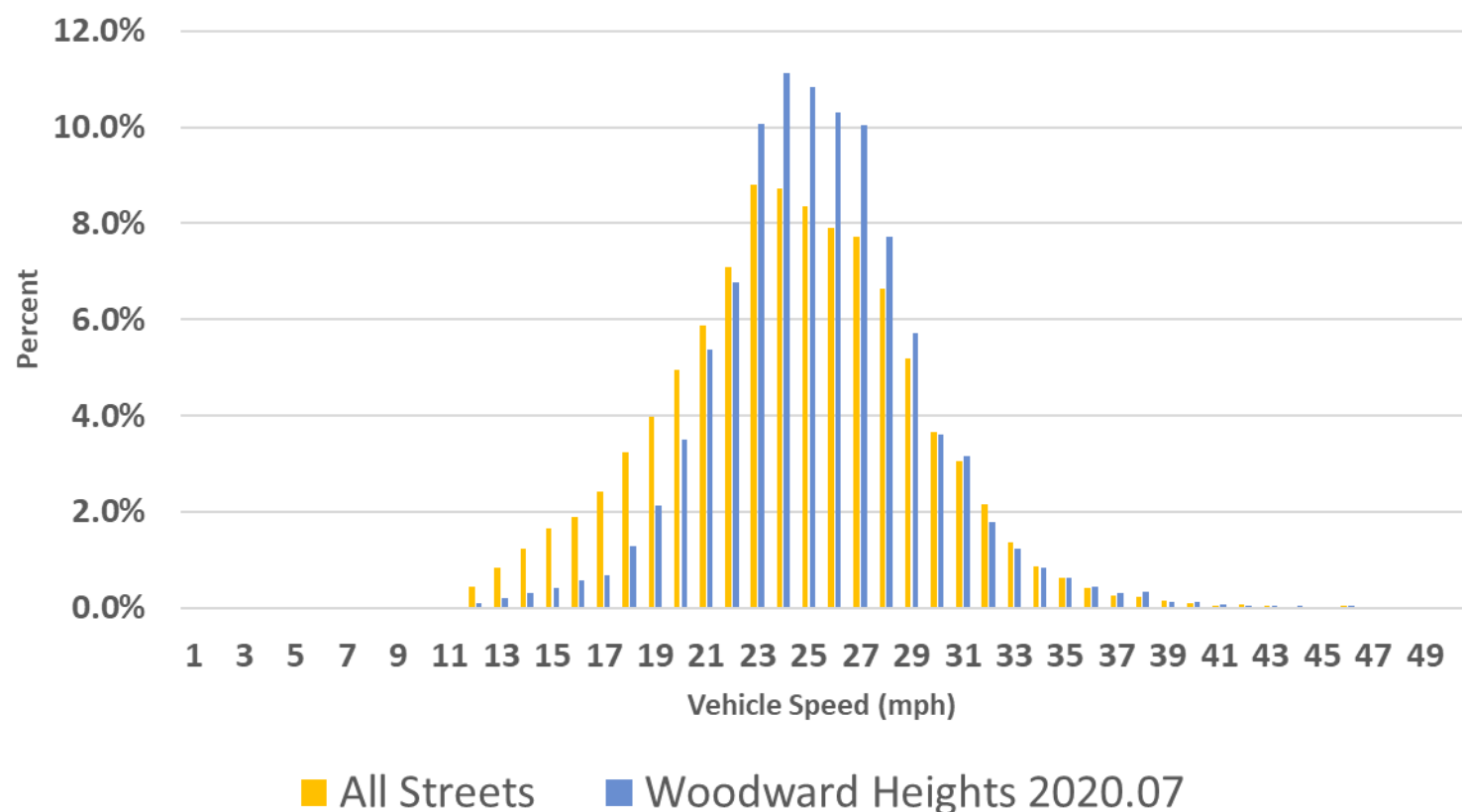
## Speed Distribution



- Woodward Heights has more central tendency, with speeds clustered in the 23-27 mph range
- Speeds above 28 mph are the same as all other PR streets
- Average and median speeds are comparable to other residential streets

# Comparison to Average PR Street

## Speed Distribution



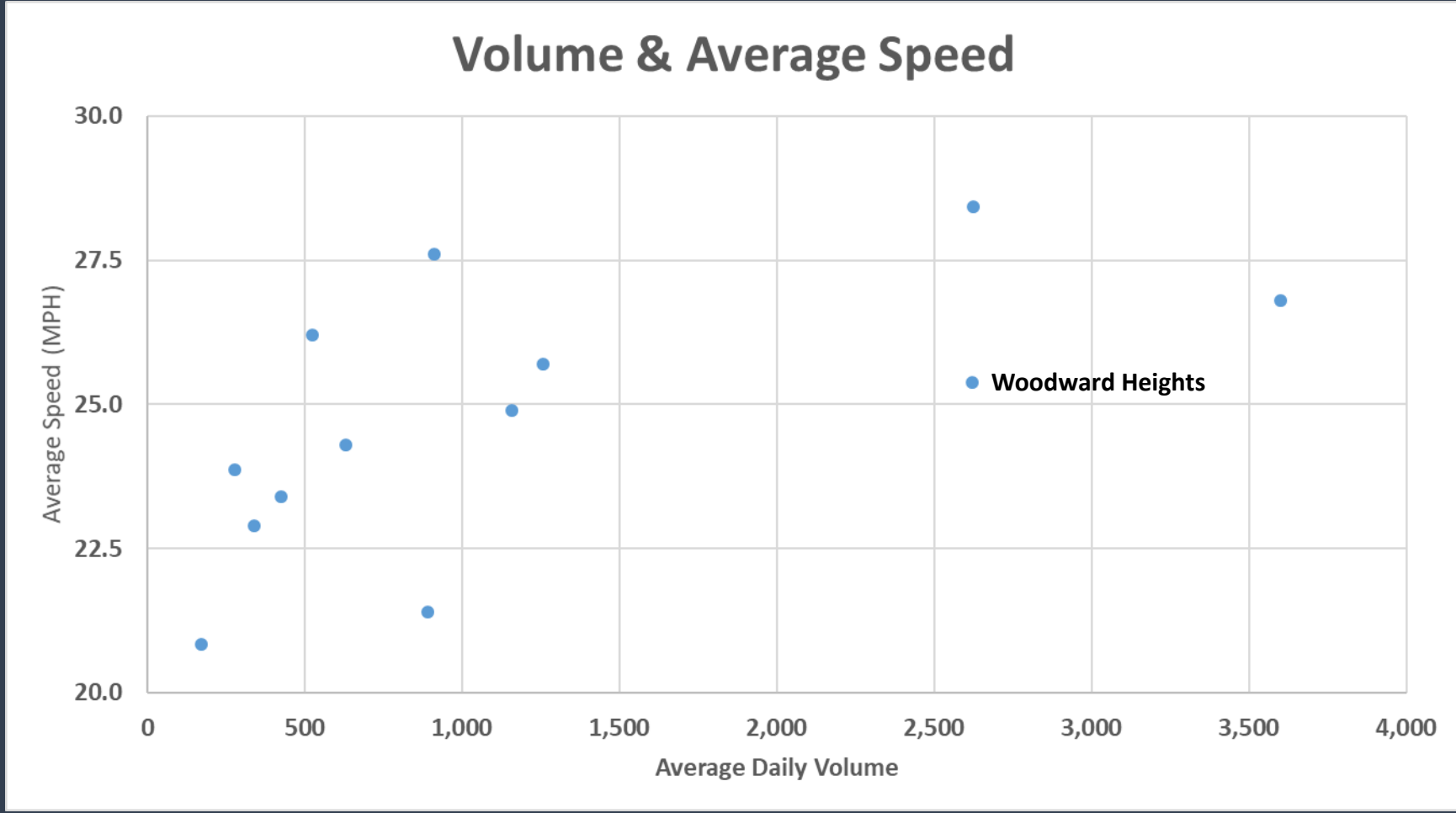
- Woodward Heights has more central tendency, with speeds clustered in the 23-27 mph range
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- Average and median speeds comparable to other residential streets

# Comparative Analysis

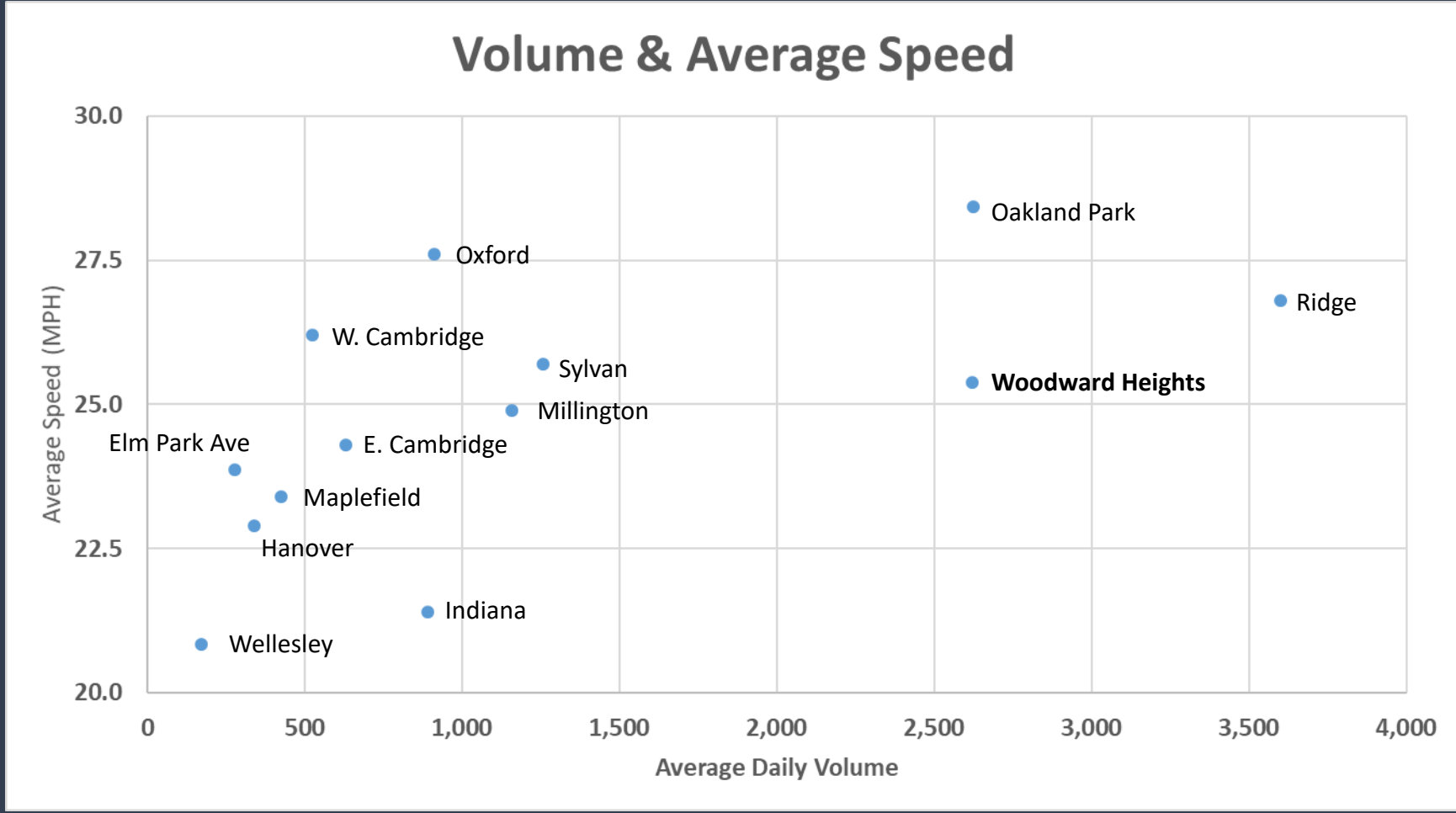
- Following slides show Woodward Heights traffic relative to other PR streets where traffic data has been collected
- Streets are where traffic volumes are known to be higher, or where we have investigated traffic speed due to resident complaints



# Volume & Average Speed



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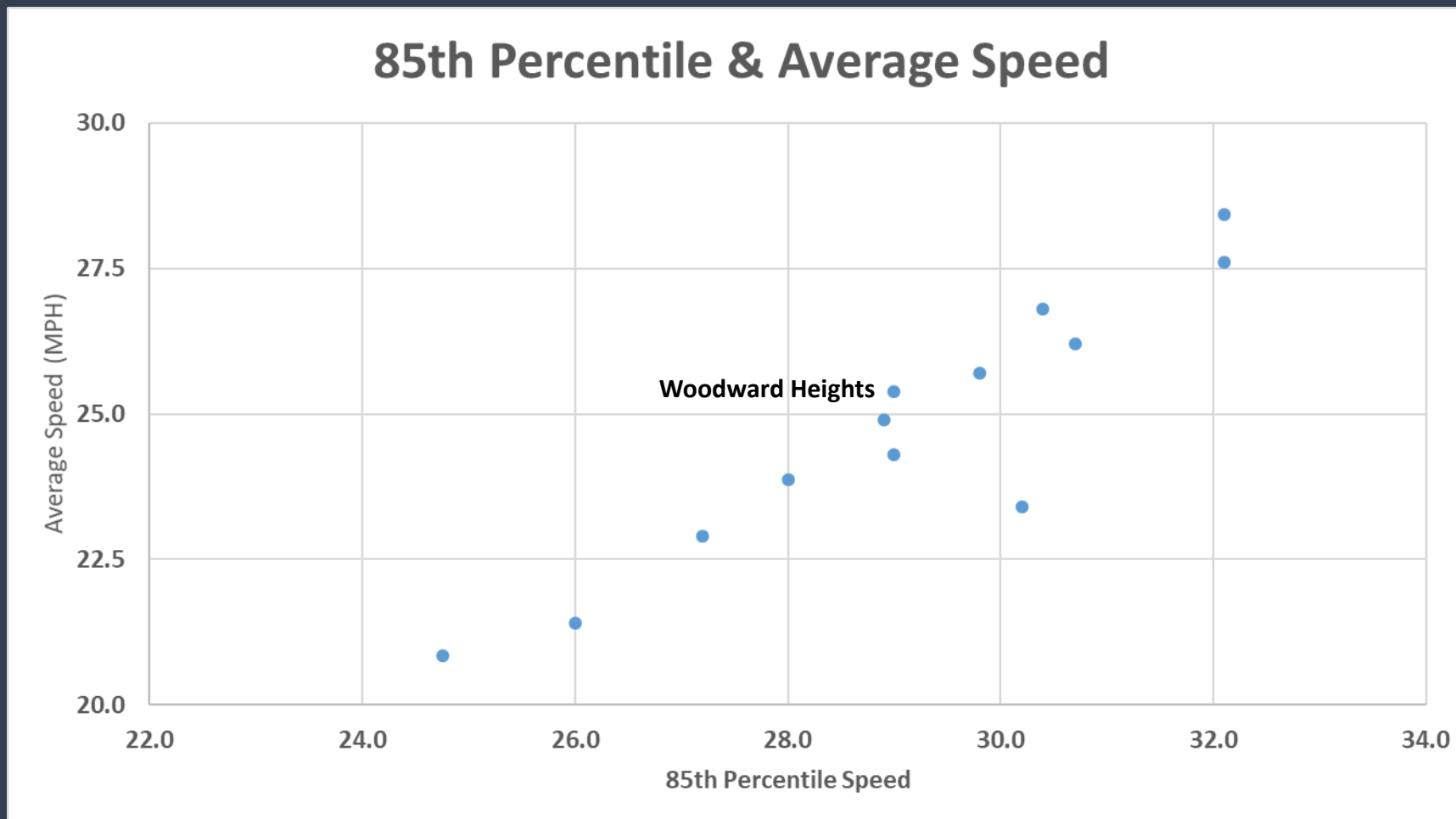
# 85<sup>th</sup> Percentile Speed

- The speed at or below which 85% of drivers travel on a given street
  - *Generally, the speed that drivers consider safe and reasonable*
- Design speed of street often equals observed 85<sup>th</sup> percentile speed

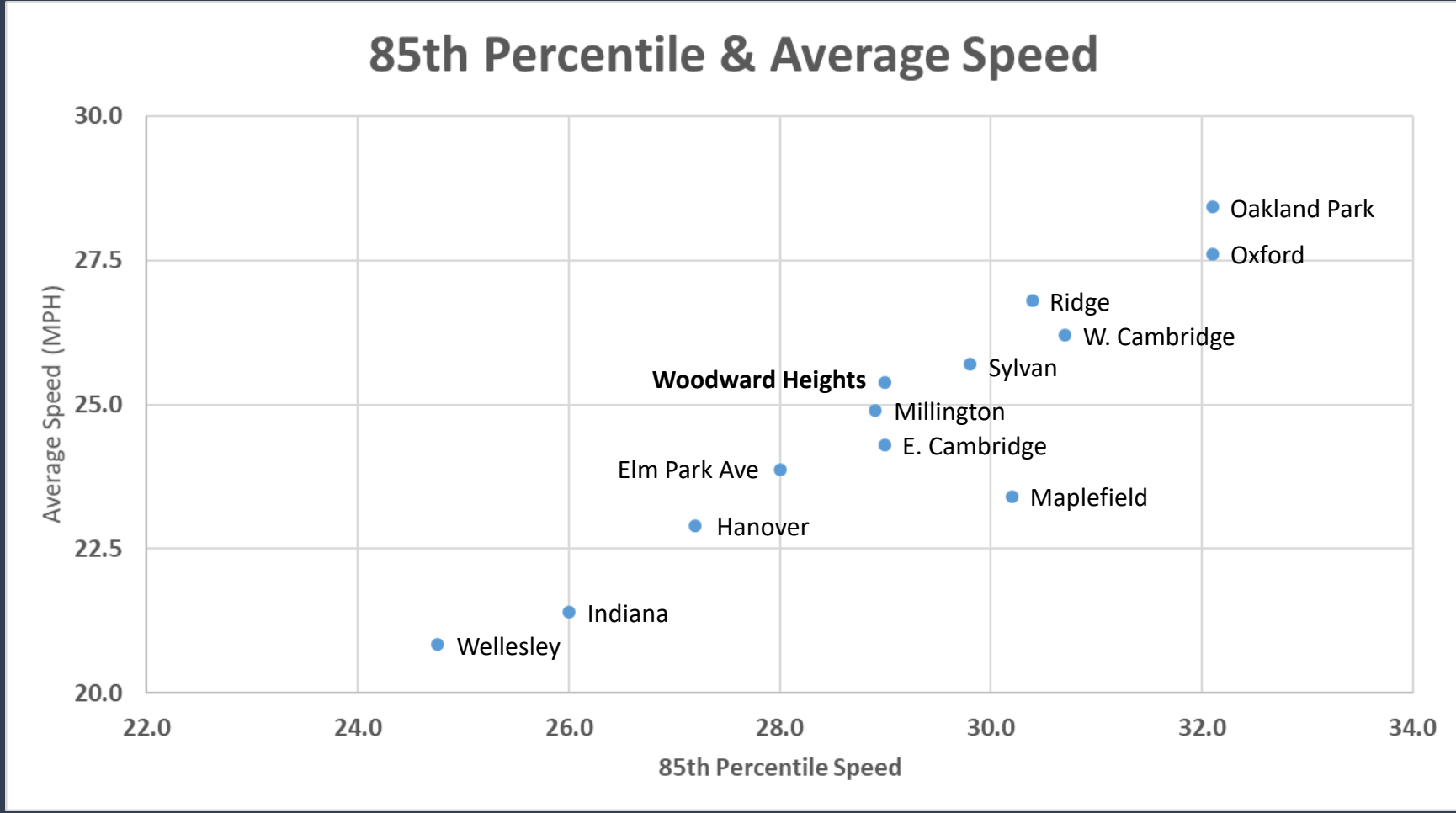
# 85<sup>th</sup> Percentile Speed

- Speed limits usually set based on 85<sup>th</sup> percentile speed
- Most residential streets have a 30 mph design speed, so 85% speeds are usually around 30mph
- Most streets have a design speed 5 mph above the target or posted speed
  - *The theory is that this builds in a “safety buffer” but it really just induces higher speeds*

# 85<sup>th</sup> Percentile & Average Speed



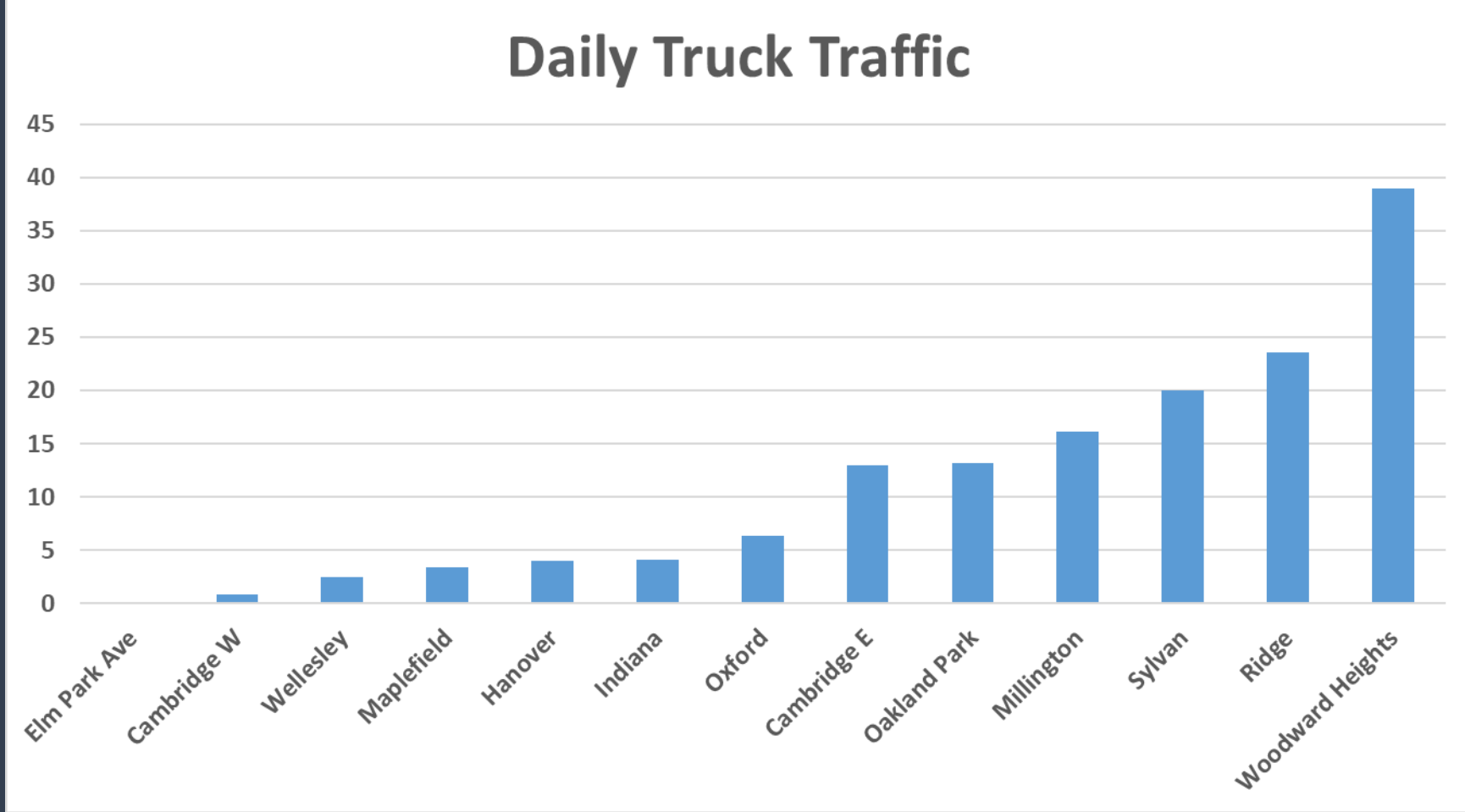
# 85<sup>th</sup> Percentile & Average Speed



# Volume & Speed Takeaways

- Volume:
  - *Woodward Heights has higher volume than most, only Oakland Park and Ridge compare*
- Speed
  - *Woodward Heights is not remarkable & has quite normal speeds*
  - *West side streets generally have higher average & 85% speeds*
- Volumes are below 2015 levels
  - *pandemic likely cause of reduced volume*
  - *volume increased by 300 cars from June to July – due to economy restarting?*

# Trucks



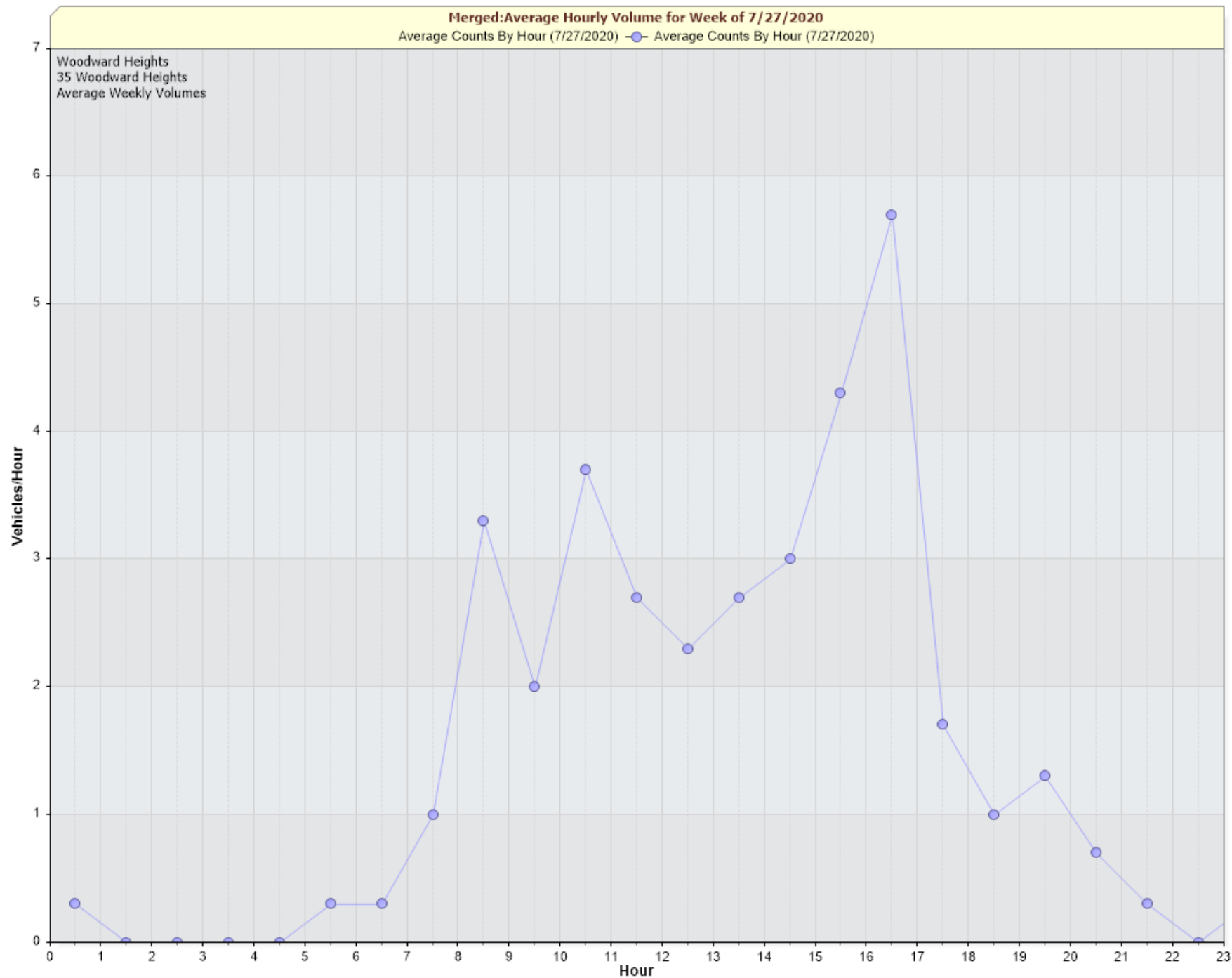


# Truck Takeaways

- Truck volume is 2-3x higher than other collector streets in the City
- Trucks = vehicles longer than 20 ft. as large vehicles
  - *Delivery vans*
  - *Busses*
  - *Dump trucks*
  - *Garbage trucks*
  - *18 wheelers*

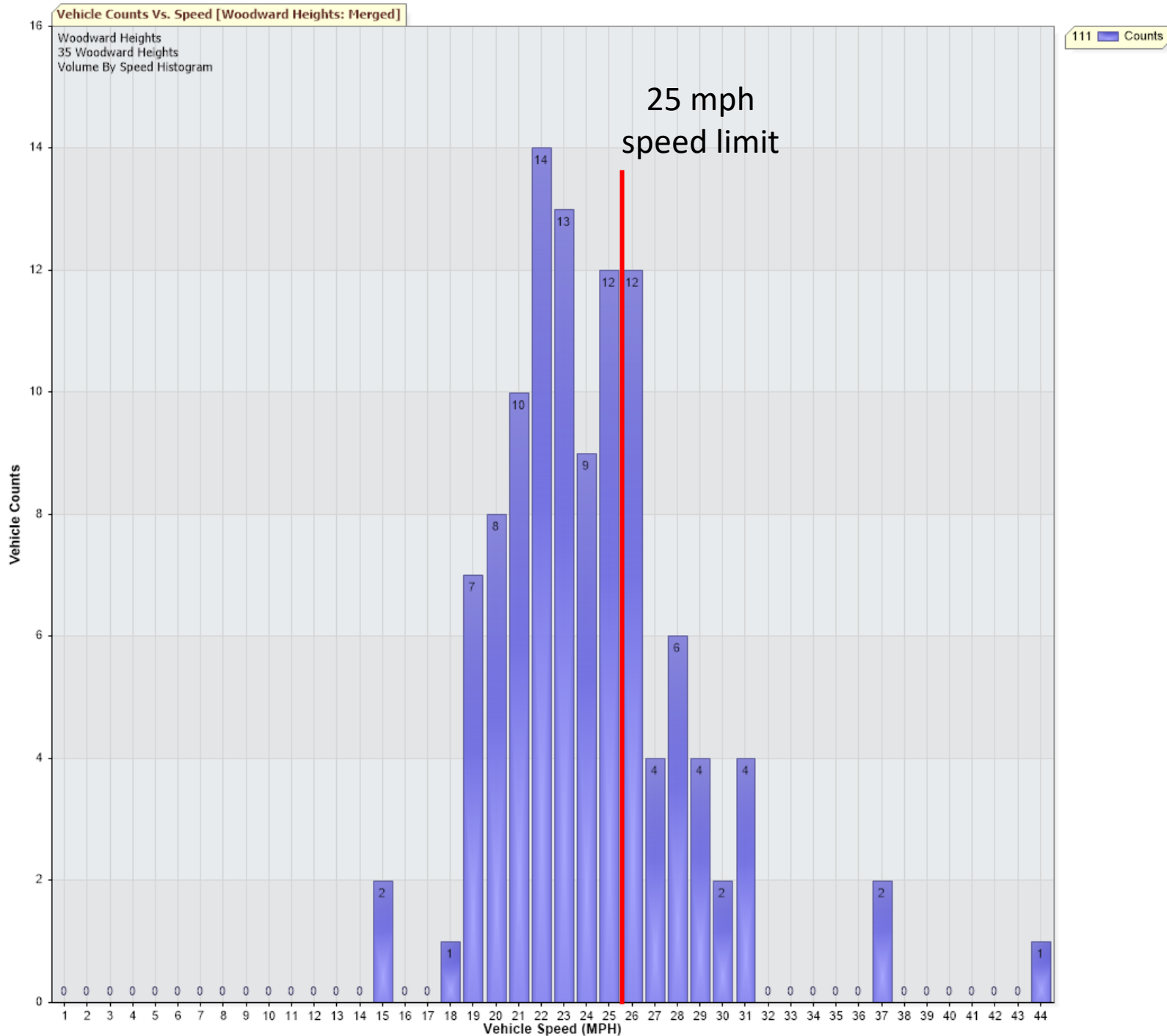
# Average Daily Trucks by Hour

- Peak truck hour is 4-5pm – 5.75 trucks/hour
- Usually 2 - 3.5 trucks/hour during the day



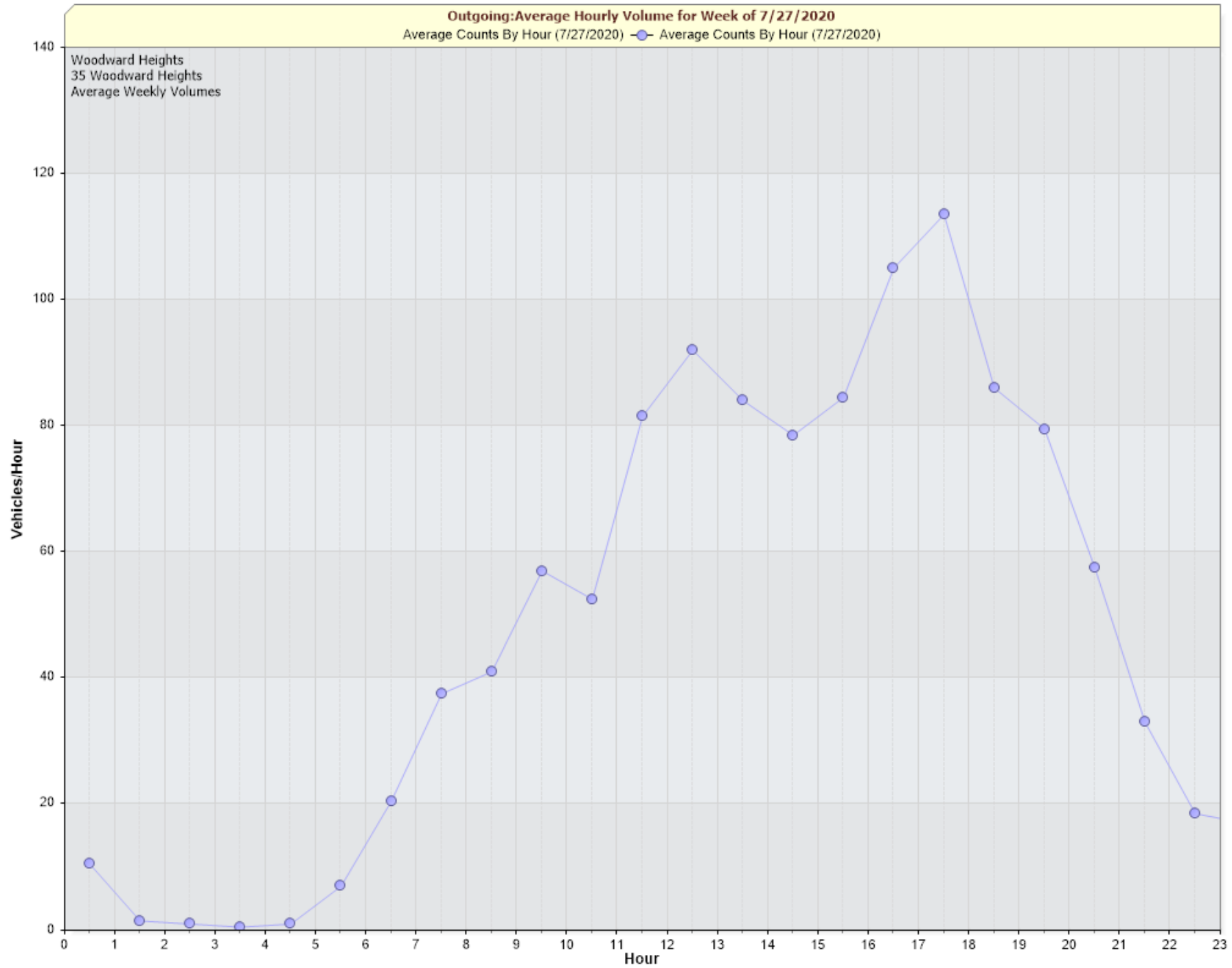
# Truck Speed

- Most trucks obey speed limit (70%)
- Nearly all trucks below 30 mph (92%)
- A few trucks have excessive speed
- Perceived speed of trucks is higher – noise and vibration

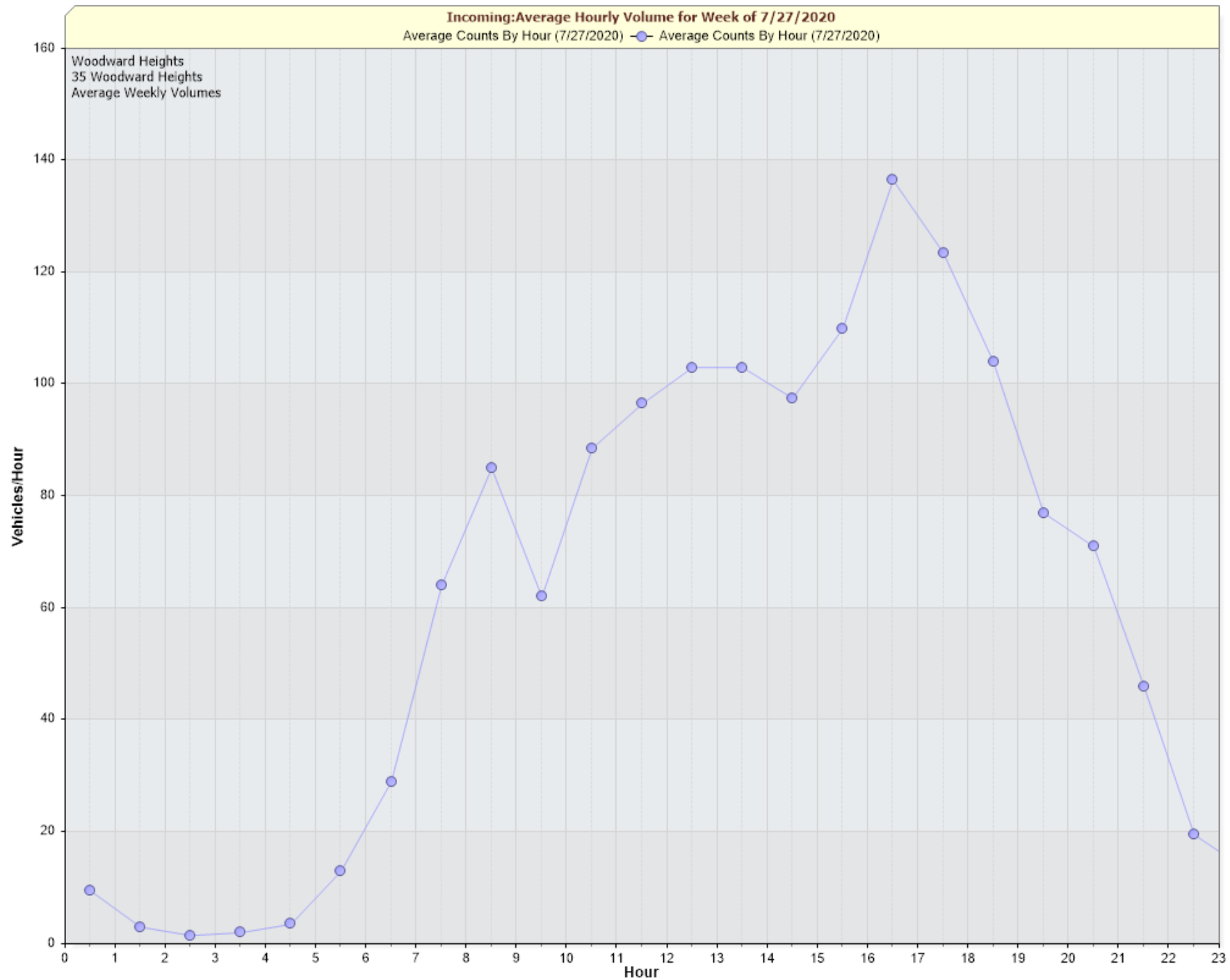


# Supplemental Data

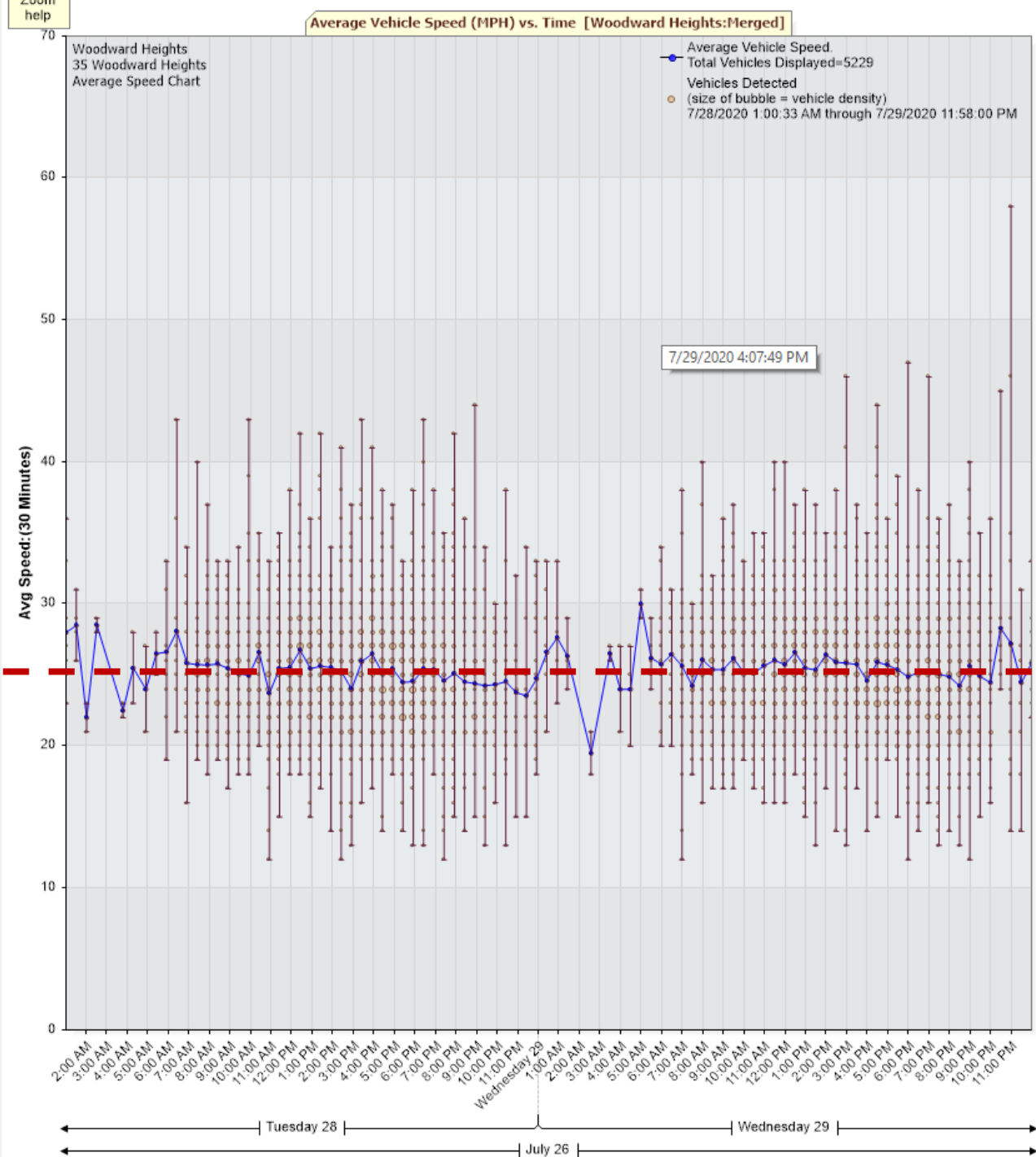
# Eastbound Avg. Hourly Volume



# Westbound Avg. Hourly Volume



# Speed Scatterchart



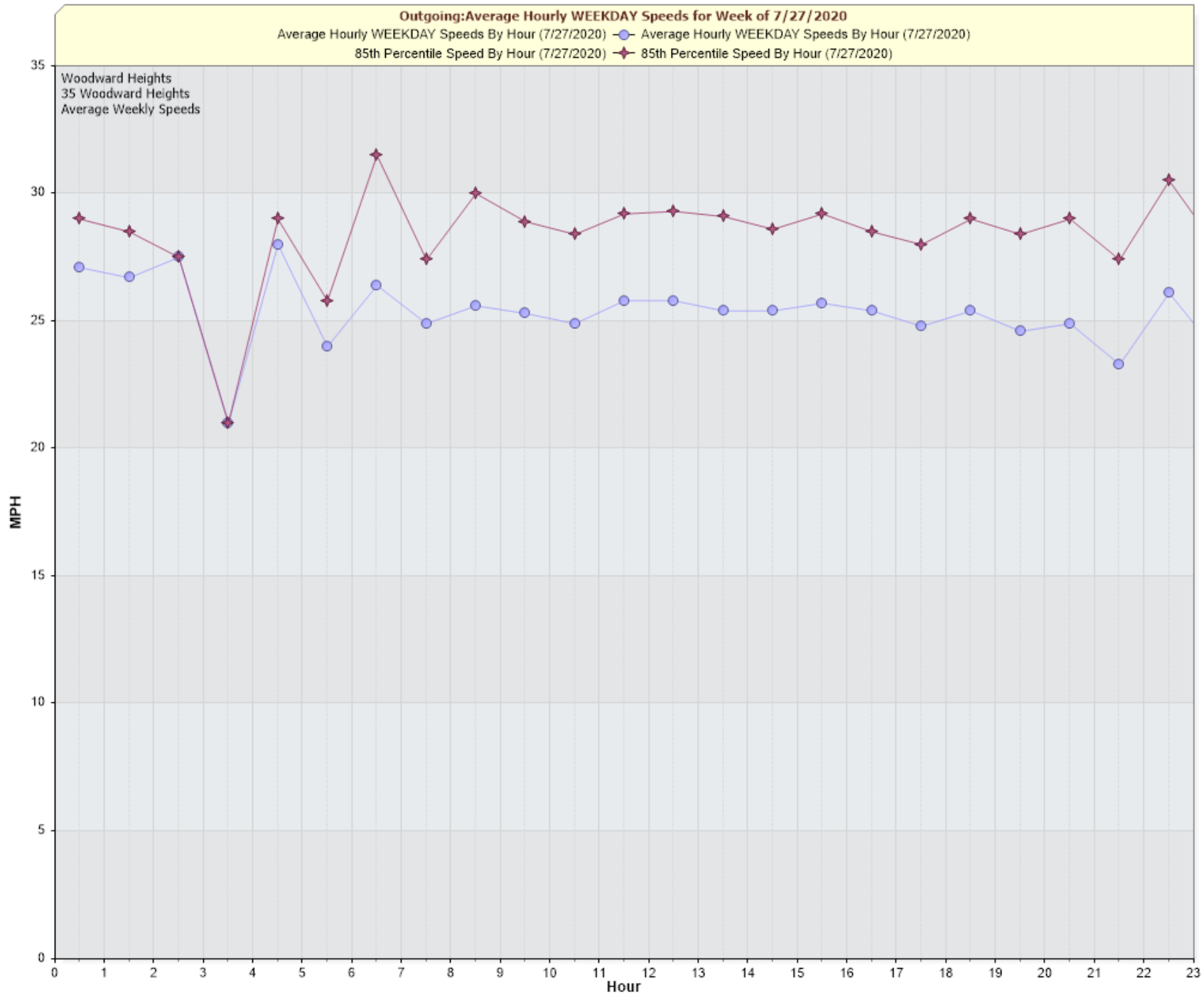
Woodward Hts.

>40 mph  
measured speed

Average measured speed  
25 mph speed limit

# Eastbound Speeds by Hour

Woodward Hts.





# Westbound Speeds by Hour

