## WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA

### **ORDINANCE NO. 1037**

AN ORDINANCE OF WHITEMARSH TOWNSHIP, MONTGOMERY COUNTY, PENNSYLVANIA, AMENDING CHAPTER 111, "VEHICLES AND TRAFFIC", ARTICLE II, "TRAFFIC REGULATIONS", OF THE CODE OF THE TOWNSHIP OF WHITEMARSH TO ESTABLISH 4-WAY STOP INTERSECTIONS AT WELLS STREET AND SUMMIT AVENUE, WELLS STREET AND ROBERTS AVENUE, AND WELLS STREET AND HILLCREST AVENUE; AUTHORIZING THE WHITEMARSH TOWNSHIP POLICE DEPARTMENT TO ENFORCE THE STOP INTERSECTIONS; AUTHORIZING THE APPROPRIATE SIGNS TO BE ERECTED; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING A SEVERABILITY CLAUSE; AND PROVIDING FOR AN EFFECTIVE DATE

**WHEREAS**, the Board of Supervisors has enacted the Code of Ordinances of Whitemarsh Township, which include, *inter alia*, provisions governing vehicles and traffic in Whitemarsh Township; and

WHEREAS, the Board of Supervisors is authorized to establish "stop intersections" at certain locations in Whitemarsh Township pursuant to 75 Pa.C.S.A. § 6109(a)(1); and

WHEREAS, the Whitemarsh Township Police Department has conducted the required traffic study (attached hereto as Exhibit "A" an incorporated herein by reference) at the intersections of Wells Street and Summit Avenue, Wells Street and Roberts Avenue, and Wells Street and Hillcrest Avenue, and determined that 4-way stop intersections are required at each of these intersections in order to protect the health, safety, and welfare of the residents of Whitemarsh Township and the traveling public; and

WHEREAS, the Board of Supervisors has determined that it is in the best interests of the health, safety and welfare of the residents of the Township and the traveling public to establish 4-way stop intersections at Wells Street and Summit Avenue, Wells Street and Roberts Avenue, and Wells Street and Hillcrest Avenue in order to protect the safety of the traveling public at those intersections;

**NOW, THEREFORE**, be it, and it is hereby **ORDAINED** by the Board of Supervisors of Whitemarsh Township, and it is hereby **ENACTED** and **ORDAINED** by authority of same as follows:

**Section 1.** Chapter 111 of the Code of Ordinances of Whitemarsh Township, entitled "Vehicles and Traffic", Article II, entitled "Traffic Regulations", is hereby amended as follows:

Section 111-14, "Stop Intersections", is amended to add or revise (as the case may be) the following in alphabetical order, with asterisks denoting 4-way stop intersections:

\*\*Hillcrest Avenue and Wells Street Hillcrest Avenue

\*Roberts Avenue and Wells Street Roberts Avenue

\*Summit Avenue and Wells Street Summit Avenue

\*Wells Street and Hillcrest Avenue Wells Street

\*Wells Street and Summit Avenue Wells Street

\*Wells Street and Roberts Avenue

Section 2. The Whitemarsh Township Police Department is authorized to enforce the stop intersections established by this Ordinance.

Wells Street

**Section 3.** The appropriate signs are authorized to be erected in accordance with the provisions of this Ordinance.

**Section 4.** All ordinances or parts thereof inconsistent with the provisions of this Ordinance are hereby repealed to the extent of the inconsistency.

**Section 5.** It is hereby declared to be the legislative intent that if a court of competent jurisdiction declares any provision of this Ordinance to be invalid or ineffective in whole or in part, the effect of such decision shall be limited to those provisions which are expressly stated in the decision to be invalid or ineffective, and all other provisions of this Ordinance and the Code of Ordinances of Whitemarsh Township shall continue to be separately and fully effective.

**Section 4.** This Ordinance shall be effective at the earliest possible date permitted by the provisions of the Whitemarsh Township Charter.

ORDAINED and ENACTED the 11th day of April, 2024.

ATTEST

Craig McAnally, Secretary

WHITEMARSH TOWNSHIP BOARD OF SUPERVISORS

Fran McCusker, Chairman



Whitemarsh Township Police Department

Date: November 20, 2023

To: Chief Christopher Ward

From: Officer John Hartman #71

Reference: Cedar Heights Neighborhood

The Traffic Safety Unit was requested to evaluate the current traffic conditions in the Cedar Heights Neighborhood. This evaluation includes an examination of traffic volume, speed, right-of-way, and signage. The Traffic Safety Unit follows PennDOT warrants which define the standards used to install and maintain traffic control devices on all public streets. These warrants are the adopted criteria found in the federal MUTCD (Manual on Uniform Traffic Control Devices) published by the Federal Highway Administration (FHWA).

Cedar Heights is a single-family residential neighborhood that sits between North Lane and Cedar Grove Road. Access to this neighborhood from North Lane is by Wells Street, Durant Street and Hallowell Street. Access to the neighborhood from Cedar Grove Road is by Wells Street, which is the main road that connects North Lane and Cedar Grove.

#### **Speed Limits**

The speed limit in this neighborhood is 25 mi/h and is posted as you enter the neighborhood on Wells Street from Cedar Grove, on Wells from North Lane, on Hallowell from North Lane, and on Durant from North Lane. Speed limit signs are also posted on Roberts, Summitt, and Hillcrest going in both directions from Wells. All signs are supported by township ordinances and meet both MUTCD and PennDOT standards.

Traffic Safety Unit conducted speed studies on each street in the neighborhood. The MUTCD recommends speed limits should be within 5 mi/h (8 km/h) of the 85<sup>th</sup> percentile speed of free-flowing traffic. The 85<sup>th</sup> percentile speed is the speed that 85 percent of drivers travel at or below and is one of the best indicators of a reasonable and safe speed. The 85<sup>th</sup> percentile for all roads in the neighborhood fell within 13 mi/h to 29 mi/h, with an average of 20 mi/h. This is within the recommended 5mi/h range for a 25 mi/h road.



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#### -Recommendations

- Two speed limit signs have been identified as in need of replacement, both are on Wells, located between Cedar Grove and Hillcrest.
- There is a damaged "Watch Children" sign attached to the speed limit sign on Wells between Hillcrest & Summit that needs to be replaced.
- No additional speed signage is needed.

### **Stop Signs**

There are currently six intersections in the neighborhood that are controlled by a stop sign. Each was examined to determine if it met current MUTCD warrants. Our findings have determined that the stop signs at the following intersections do not meet these standards.

- Wells Street at Summit Avenue
- Wells Street at Roberts Avenue

These two intersections are four-way intersections with stop signs for traffic on Wells, and no stop signs for traffic on Summit or Roberts. This goes against MUTCD warrants, as the main road (Wells) should have the right of way over the secondary roads (Summit and Roberts).

Section 2B.05 STOP Sign Applications STOP signs should be used if engineering judgment indicates that one or more of the following conditions exist:

A. Intersection of a less important road with a main road where application of the normal right-of-way rule would not be expected to provide reasonable compliance with the law;

To confirm this, the Traffic Safety Unit conducted a volume study to determine which roads were most travelled in the neighborhood. The average daily vehicle count is below:

	Wells Street	1229
	Hillcrest Avenue	522
	Summit Avenue	497
•	Roberts Avenue	380
	<b>Durant Street</b>	265
	Hallowell Street	127



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This would support removing the stop signs for traffic traveling on Wells Street and installing new two-way stop signs for traffic traveling on Summit and Roberts.

In the consideration of making these two intersections a multiway or all-way stop, the Traffic Safey Unit refers to PennDOT and MUTCD warrants for the installation of stop signs. The MUTCD states the following criteria should be considered in the engineering study for a multi-way STOP sign installation:

- A. Where traffic control signals are justified, the multi-way stop is an interim measure that can be installed quickly to control traffic while arrangements are made for the installation of the traffic control signal.
- B. Five or more reportable crashes in a 12-month period that are susceptible to correction by a multi-way stop sign installation. Such crashes include right-turn and left-turn collisions as well as right-angle collisions.
- C. C. Minimum volumes:
  - 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
  - 2. The combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the highest hour; but
  - 3. If the 85<sup>th</sup> percentile approach speed of the major street traffic exceeds 40 MPH, the minimum vehicular volume warrants are 70 percent of the values provided in items 1 and 2.

Currently, the intersection does not meet any of the above criteria, however other criteria may be considered including;

Locations where a road user, after stopping, cannot see conflicting traffic and is not able to reasonably safely negotiate the intersection unless conflicting cross traffic is also required to stop.



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The Traffic Safety Unit conducted a sight distance study at each intersection. This study utilizes industry standards for stopping distance at 25 mi/h. Stopping sight distance provides sufficient distance for drivers to anticipate and avoid collisions. The study found that vehicles parked along Wells Street blocked the necessary stopping sight distance needed for vehicles traveling on Summit and Roberts.

#### -Recommendations

- The Township has two options for the intersections of Wells at Summit and Wells at Roberts
  - Place stop signs for all four directions at the intersections of Roberts at Wells, and Summit at Wells, accompanied by "All Way" placards.
  - or install two-way stop signs for traffic on Roberts at Wells and for traffic on Summit at Wells, with no stop signs for traffic on Wells. Additionally, we would need to place parking restrictions on Wells to allow the needed stopping sight distance for these intersections.
- The stop signs on Hillcrest at Wells for the east and west bound traffic do not have a township ordinance and are currently unenforceable. These stop signs need to be ordained.
- The stops signs at the following intersections are too small and do not meet MUTCD regulations. These signs need to be replaced with the appropriate size stop signs. The standard size for a stop sign is 30" x 30". (PennDOT Publication 236 R1-1)
  - Wells at Summit
  - Wells at Roberts
  - Wells at Hillcrest
  - o Roberts at Hallowell
  - Durant at Roberts
- The stop signs at Durant and Summit should have "All Way" placards below the stop signs.

### Vehicle Weight Limits

Whitemarsh Township has established vehicle weight limits for its local streets in the township code, section 111 Vehicles and Traffic, Article II Vehicle Weight and Limits. The only street in the Cedar Heights neighborhood that has a weight limit restriction is Wells Street at 6,000 pounds. Currently there are three "No Trucks" signs posted in the neighborhood, on Durant at North Lane, on Hallowell at North Lane and on Wells just north of Hillcrest. Durant and Hallowell do not have an ordinance that restricts weight,



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which makes them unenforceable. There is only one weight restriction sign posted on Wells and it is mid-block.

#### -Recommendation

- The "No Trucks" signs on Durant and on Hallowell need to be removed. In order
  to prohibit truck traffic based on weight, the Township would need to enact an
  ordinance based on the Township Engineer's evaluation of the roadway
  condition. Refer to PennDOT Publication 212.117 (Weight, size and load
  restrictions) for specifics.
- Two "No Trucks" signs accompanied with "Local Deliveries Only" signs need to be installed on Wells Street at the intersection with Cedar Grove, and on Wells Street at the intersection with North Lane.

#### Attachments:

- Pictures of signs that need to be replaced or removed.
- Sight Distance at Intersection
- MUTCD Signs



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Figure 1 Speed Limit Sign on Wells needs to be replaced



Figure 2 Speed Limit Sign on Wells needs to be replaced



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Figure 3No Truck sign on Hallowell needs to be removed



Figure 4 No Track sign on Durant needs to be removed.

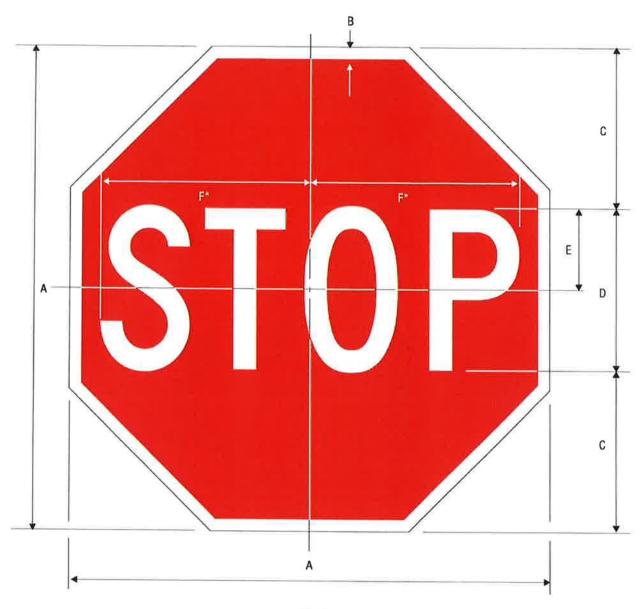


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Table 3. Sight Distance at Intersections

Speed (mph) *	(mph) * Stopping Sight Distance (ft.) Design Intersection Sight Distance (ft.)				
25	155	280			
30	200	335			
35	250	390			
40	305	445			
45	360	500			
50	425	555			
55	495	610			
60	570	665			
65	645	720			

Source: A Policy on Geometric Design of Highway and Streets, 5th Edition, American Association of State Highway and Transportation Officials (AASHTO), 2004.



R1-1 STOP \*Reduce spacing 40%

	Α	В	С	D	Е	F
	18	.375	6	6 C	3	7.75
	24	.625	8	8 C	4	10
C	30	.75	10	10 C	5	12.5
	36	.875	12	12 C	6	15
	48	1.25	16	16 C	8	20

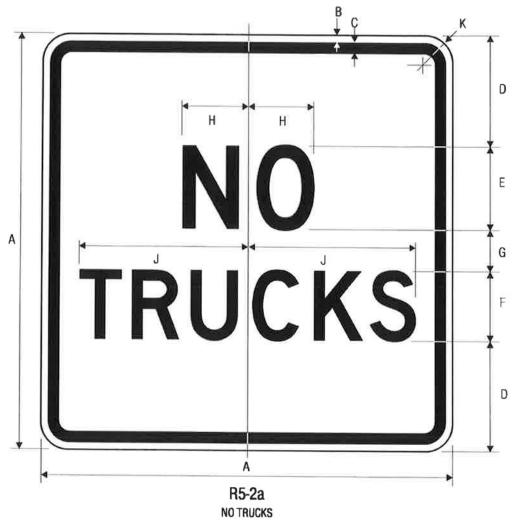


R1-4 ALL WAY

\*Series 2000 Standard Alphabets.

	Α	В	С	D	E	F	G	Н
C	18	6	.5	1.5	3 C	1.5	7	1.5
_[	24	9	.5	2	5 C	2	11	1.5
	30	12	.75	3	6 C	3	13.25	1.875
	36	15	.75	4	7 C	4	15.771	2.25
	48	18	1	4.5	9 C	4.5	20.415	3

 $\begin{array}{cccc} \text{COLORS:} & \text{LEGEND} & -\text{WHITE} & (\text{RETROREFLECTIVE}) \\ & \text{BACKGROUND} - \text{RED} & (\text{RETROREFLECTIVE}) \\ \end{array}$ 



		NO TRUC

	Α	В	С	D	E	F	G	H	J	K
	12	.375	.375	3	2.5 D	2 D	1.5	2.003	4.877	1.5
C	24	.375	.625	6	5 D	4 D	3	4	9.767	1.5
	30	.5	.75	7.875	6 D	5 D	3.25	4.843	12.269	1.875
	36	.625	.875	9.25	7 D	6 D	4.5	5.604	14.651	2.25
	48	.75	1.25	12.5	9 D	8 D	6	7.225	19.534	3

COLORS: LEGEND — BLACK
BACKGROUND — WHITE (RETROREFLECTIVE)