



CITY OF WASHINGTON, ILLINOIS

Committee of the Whole Agenda Communication

Meeting Date: March 13, 2023

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Agenda Item: Traffic Calming

Background: At the last Council meeting, a resident on Gilman spoke on the potential need for traffic calming on Gilman. The process that the city currently follows is when a complaint is received, the police department responds and investigates.

Explanation: The speed limit for most of the City's local roads is 25 mph. That speed limit looks pretty fast for stationary parents and guardians looking out for the safety of their children. If 25 mph looks fast, 30 mph can look like a race car. While this exaggeration of speeds is not always the case, the speed trailer has shown that traffic is not way out of the norm. However, while the speed trailer does collect a large quantity of data, it can also act as a speed deterrent and slow vehicles down. The longer a speed trailer sits in a location, the less effectiveness it has on speed reduction. Once the trailer is removed, the traffic will largely return to the pre-investigation speeds.

Traffic calming is not a one-size-fits-all type of process. Traffic calming can be accomplished through education, enforcement, or engineering with each carrying very different price tags, target distinct behaviors, and ultimately produce diverse ending results.

- Education can be achieved through signage, such as the posting of additional speed limit signs, slow down signs, etc. The cost of signs is relatively cheap but also requires long term maintenance responsibilities. Some homeowners also do not want signs in their greenspace even if they would be within right-of-way.
- Enforcement comes from the Police Department (PD). The shifting of personnel resources to monitor areas places the financial burden on those who do not abide by the speed limit. Residents can complain that a neighborhood is being unfairly targeted if patrolled heavily versus its surrounding area.
- Engineered solutions are typically the most expensive. There are temporary (removable) solutions and permanent solutions. While these solutions do often show a benefit in locally slowing traffic down, the farther a vehicle gets away from the deterrent, the more speeds increase. Solutions also will change the neighborhood feel and appearance, traffic patterns, can reduce accessibility to homes, and can affect drainage plans.

Policy: The City does not have a traffic calming policy. Staff has identified potential steps for a policy that could help align the appropriate solution with the least amount of public dismay as follows:

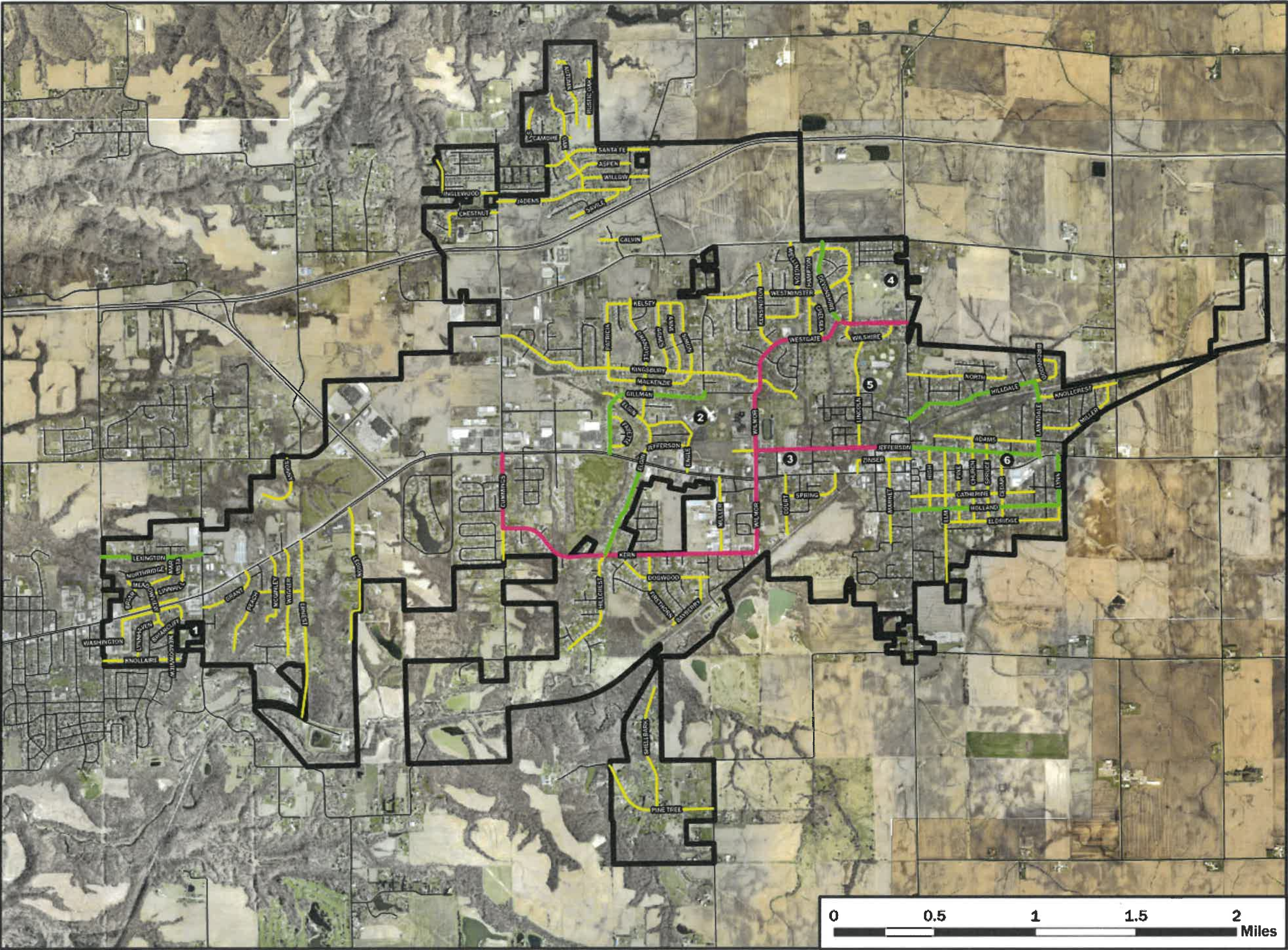
1. A complaint is submitted for speeding on a specific street.

2. If practical and advisable, PD can place a speed trailer at the particular location. This will slow vehicles down initially and show the residents that progress is sought towards a goal.
3. When the speed trailer is removed, either PD or Engineering will set out traffic counters to collect speed and traffic data.
 - a. New traffic counters would need to be purchased to collect data.
4. The appropriate solution can be identified based on the roadway and speed characteristics:
 - a. Road Characteristics
 - i. Road Classification of Local Road or some Minor Collectors
 1. Minor Collectors are designed to collect traffic from local roads. Adding traffic calming on collectors will shift more traffic to local roads which is not advisable.
 - a. Collectors are better candidates for enforcement and education.
 - ii. Straightaway street length of more than 1,500 ft with no stop/yield control.
 - iii. Road width/on-street parking/driveway access should be reviewed.
 - b. Speed
 - i. If the 85th percentile speed is in line with speed limit but there are extreme outliers, enforcement of the extreme outliers is the appropriate solution.
 - ii. If the 85th percentile speed is slightly higher, education would likely be the appropriate solution.
 - iii. If the 85th percentile speed is well out of the range of the speed limit, then engineered solutions can be proposed.
5. If an engineered solution is to be proposed, the Engineering Department will assemble an exhibit of the method that can be incorporated. This exhibit should be mailed to the neighbors on the block for their input. The neighbors will be just as affected and potentially impacted more if signs are to be placed in their yards or something placed in the roadway in front of their home.
6. If 70% of the neighbors agree that there is an issue and they would like the addition of the appropriate solution, the location and solution is brought to Council for discussion and implementation.
7. Post installation data should then be collected to identify the impact of the solution.

Solutions: There are around 20 solutions identified by both the Federal Highway Administration and Institute of Transportation Engineers. Attached with the memo is a quick summary of eight potential solutions staff has identified that might be justifiable for use in the city. Each solution comes with pros and cons. The pros are largely that they decrease the speed of traffic. The cons vary by solution but normally include high cost, slower emergency response, traffic rerouting, limited large vehicle access, and drainage concerns.

Fiscal Impact: The FY 23-24 budget does not include any funds for traffic counters or potential solutions.

Recommendation Summary: Staff recommends discussion on traffic calming and budgeting related to traffic calming.



Traffic Calming

Streets with 25mph & Longer than 1,500 ft.

Legend

- Local Roads
- Minor Collector
- Major Collector
- City Boundary

Washington Schools

- 1 Beverly Manor Elementary School
- 2 Central Elementary
- 3 Washington Community High School
- 4 Washington Middle School
- 5 Lincoln Grade School
- 6 Saint Patrick's School



Date: 3/10/2023

This map indicates approximate data locations and may not be 100% accurate. 2019 Aerial Imagery & Parcels are provided and maintained by Tazewell County.



	ITE Traffic Calming Measures							
	Speed Table	Speed Cushion	Mid-Block Raised Crosswalk	Raised Intersection	Median Island	Corner Bumpout	Chicane - Serpentine	Roundabout
Solution Type	Temporary	Temporary	Permanent	Permanent	Permanent	Permanent	Permanent	Permanent
Cost	< \$10,000	< \$10,000	< \$50,000	\$60,000	< \$10,000	< \$35,000 per leg	\$13,000	\$250,000-\$500,000
Description	Placed at an intersection	Two or more raised areas placed laterally across a roadway with gaps between raised areas	Placed at a pedestrian crossing	Flat raised areas covering entire intersections, with ramps on all approaches	Raised island located along the street centerline that narrows the travel lanes at that location	Horizontal extension of the sidewalk into the street, resulting in a narrower roadway section	A series of alternating curves or lane shifts that force a motorist to steer back and forth instead of traveling a straight path	Raised islands placed in unsignalized intersections around which traffic circulates
	Long, raised speed humps with a flat section in the middle and ramps on the ends	Often placed in a series (typically spaced 260-500' apart)	Long, raised speed humps with a flat section in the middle and ramps on the ends	Often use brick or other textured materials on the flat section and ramps	Can often double as pedestrian/bicycle refuge islands if a cut in the island is provided along a marked crosswalk, bike facility, or shared-use trail crossing	Method for narrowing pedestrian crossing distances and increase pedestrian visibility	Appropriate for mid-block locations but can be an entire block if it is relatively short	Requires drivers to slow to a speed that allows them to comfortably maneuver around them
	Sometimes constructed with brick or other textured materials on the flat section		Sometimes constructed with brick or other textured materials on the flat section		Can be placed mid-block or on the approach to an intersection	When combined with on-street parking, can create protected parking bays	Most effective with equivalent low volumes on both approaches	Controlled by YIELD signs on all approaches with pedestrian crosswalks
Potential Impacts	No impact on non-emergency access	Limited-to-no impact on non-emergency access	No impact on non-emergency access	Reduction in through movement speeds likely at intersection	May impact access to properties adjacent to islands	Effects on vehicle speeds are limited due to lack of deflection	Limited data available on speed and crash risk	Limited impact on access, except for access points immediately adjacent to intersection
	Average traffic volumes diverted 20% when a series of speed tables are implemented	Speeds determined by height and spacing; speed reductions between cushions have been observed averaging 20-25%	Average traffic volumes diverted 20% when a series of speed tables are implemented	Can make entire intersections more pedestrian-friendly	No significant impact on vehicle speeds beyond the island	Can achieve greater speed reduction if combined with vertical deflection	Street sweeping may need to be done manually	May draw additional traffic but with reduced delays and queues
	Increase pedestrian visibility and likelihood of driver yield compliance	Speeds typically increase by 0.5 mph midway between cushions for each 100' of separation	Increase pedestrian visibility and likelihood of driver yield compliance	Slows emergency vehicles	May require removal of some on-street parking and relocation of drainage features	May require some parking removal adjacent to intersections	May still permit speeding by drivers cutting straight paths across the center line	Appropriate for emergency vehicle routes and reduces severe injury crashes