



RYE POLICE DEPARTMENT

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To: Rye Select Board
From: Chief Kevin Walsh *KW*
Date: 06/09/2022
Re: Speed calming humps or bumps pros and cons information

I am writing this memo because of an e-mail I received from Brian Helfrich who lives on Pine Street in Rye. Brian is asking me the process to get speed calming humps installed on Pine Street. I am not in favor of installing speed calming humps on any road in Rye. I want the Select Board to have the information I am basing my response to no to traffic calming devices.

Speed bumps are often installed in large parking lots to significantly slow traffic. The "Bumps" are not very wide and have a crown. Vehicles driving over these must significantly slow down or otherwise experience a very jarring bump as they cross over.

Speed calming humps are also installed to slow traffic. The "Humps" are typically used on residential roads. The humps are much wider than speed bumps with a similar crown height.

Before traffic calming measures are installed a study on the road and neighborhood should be done to determine the extent of the issues. Significant changes to a road will have an effect on several other Rye neighborhoods.

This ensures decisions are fact-based, supported by data and best practice standards. This process also verifies the significance of the problem.

The Pros of installing speed calming humps,

1. There is a real and verified speeding problem on the roads.
2. Speed calming humps are known to slow vehicle traffic. Keeping vehicle traffic speeds closer to the posted speed limit.

The Cons of installing speed calming humps,

1. Costs: they are expensive to install and expensive to maintain, in 2008, the cost was approximately \$4,500.00 to \$7,500.00, today's price not sure. Unknown cost for maintenance. (Source: Washington Post, Sept. 9, 2008)
2. Speed humps slow the response times of emergency vehicles. Police and fire vehicles response times are slowed by approximately three seconds for each speed calming hump they must cross. For fire, given the onboard water and vehicle weight, each speed calming hump costs fire engines approximately ten seconds in response time. As a community of a wide range of ages, rapid access from our youngest to our oldest community members in times of need is critical to saving lives and property. Sometimes seconds count – heart attack, stroke, fire, etc. (Source: ABC Orlando /WFTV, January 28, 2010, Fire captain Jeffrey Martin, St. Petersburg Times February 2, 2008, Tampa Tribune, September 20, 2008)

3. Speed humps can reduce property values – prospective homebuyers might reject home sites near speed humps. (Source: Tampa Bay Online, September 30, 2009)
4. Speed humps increase noise levels – Speed calming humps usher in sounds of scraping cars and engines revving over humps. (Source: (Tampa Bay Online, August 12, 2009)
5. Speed humps hurt the environment, increasing pollution as vehicles slow well below the speed limit and then accelerate away. They increase air pollution – on roads with speed calming humps, one study found carbon monoxide emissions increased by 82 percent, carbon dioxide emissions double, and nitrogen oxide increased by 37 percent. (Source: BBC.com, April 22, 2009)
6. Speed humps reduce vehicle fuel efficiency and increase gas consumption because drivers brake and accelerate as they traverse each speed calming hump. (Source: BBC.com, April 22, 2009)
7. Speed humps increase noise levels where they are implemented. This is due to both engine and brake noise from people slowing down and speeding up and from trucks and school busses that bounce as they cross the speed calming hump.
8. Speed humps can cause damage to vehicles, particularly performance vehicles (even at low speed). They increase the wear and tear on residential and commercial vehicles – speed calming humps are a source of excessive wear on tires, brakes, suspension systems, shock absorbers, and rattle dashboards. (Source: The Natchez Democrat, October 28, 2009)
9. Speed humps may cause discomfort to drivers and passengers.
10. Speed humps cause ground vibration when vehicles navigate them and send shockwaves to the nearby homes. The cumulative effect has been proven to damage nearby properties, such as cracks developing in exterior masonry walls and drywall-constructed walls within homes. UK regulations state such humps may not be implemented within twenty-five meters of bridges, subways, or tunnels.
11. Speed humps often divert traffic to alternative residential neighborhoods that do not have speed humps.
12. Speed humps cost drivers' money by using more fuel and brake pads in addition to the damage caused to suspension, oil pans, exhaust, etc. Such damage can make cars dangerous if the driver is not aware of the damage caused over time.
13. When vehicles drive over speed humps with their lights on, this points the dipped beam up to eye level. This not only causes light pollution in nearby houses, but also gives the illusion of the headlights being flashed, dazing, and causing confusion to other motorists, which increases the potential for accidents.
14. Speed humps are expensive to remove. Municipalities, under pressure from citizens and enforced by the courts, have been forced to remove speed humps at great expense to taxpayers. (Source: Tampa Bay Online, September 30, 2009)
15. Speed humps are a poor substitute for active enforcement.

Based on the unintended consequences and the costs, the police department does not believe speed humps will resolve poor driving behavior. The information above does not take into consideration what are the unintended consequences of adults and kids on bicycles and mopeds or motorcycles driving over a speed hump. This information is not available at the time of this memo.

The command staff and I meet regularly about developing plans for integration of speed management plans and have produced the following: Enforcement; Engineering; Education; and Effective Leadership. These management plans are reviewed on regular basis.

Enforcement: Making sure appropriate speed limit signs are posted. Public education campaign that fosters public support to increase voluntary compliance. Influence driver behavior. Enforcement and sanctions (tickets) for those who do not comply. Changing officer tolerance when the officer stops a vehicle for a violation. Each cruiser is equipped with radar units.

Engineering: Speed zones are proved to indicate the maximum reasonable and safe speed limit under favorable conditions for a section of roadway. The police department bought a radar recorder device. The device counts vehicles, logs the time of day, day of the week, direction vehicles are traveling, and how fast they are going. The staff reviews crash data and past ticket or warnings issued in prior months and years as well as review neighborhoods' road characteristics.

Road Characteristics examples:

Activity: Pedestrians, bicyclists, parking

Signage: How many signs are posted for the speed limit, reduce speed limit signs, or curve ahead signs

Sight: What are the distances for curves and hills

Home Types: Private, country club, church, private businesses in the neighborhood

Intersections: How many

Education: Research to identify and clearly understand how, when, and where to reach and target high-risk drivers. Capitalize on special enforcement activities. Enforce with media campaign-the goal is to deter poor motorist/driving behavior. Coordinate with neighboring police departments and NH State Police on saturated patrols. Use digital speed signs and moving locations to ensure signs are not part of the backdrop and not noticed by drivers.

The officers and I will continue to make drivers aware of their driving behavior.

Thank you for your continued support.

Cc: Town Administrator Becky Bergeron
Rye Fire Chief Mark Cotreau
Rye Highway Director Jason Rucker