



Date: May 5, 2015

To: Thomas J. Bonfield, City Manager
Through: Keith Chadwell, Deputy City Manager
Bo Ferguson, Deputy City Manager
From: Mark D. Ahrendsen, Transportation Director
Dan Curia, Fire Chief
Subject: Speed Hump Policy Revisions

Executive Summary

Since the City Council first adopted a Speed Hump policy in 1996, more than 700 speed humps have been installed on City streets. Speed humps have proven to be very effective, relatively low-cost measures which have reduced excessive speeding on residential streets. However, there is an increasing cumulative negative impact to first responders and response times to medical emergencies, structure fires and other emergencies. To address this concern, the Transportation and Fire Departments recommend several speed hump policy revisions to limit speed hump eligibility criteria to streets with more significant excessive speeding.

Recommendation

The Department of Transportation recommends that the City Council approve a revised City of Durham Speed Hump Policy.

Background

The City has installed speed humps in accordance with a City Council policy first adopted in February 19, 1996, as amended. The policy was developed in response to resident requests to address persistent speeding problems on residential City streets. It provided the necessary eligibility and petition criteria to ensure streets had data-verified speeding problems and the support of abutting property owners. The policy also includes provisions for City Council initiated projects, a petition process for the removal of petition-ordered speed humps, and consideration of impacts to emergency and other service providers.

Funding for speed hump construction was initially funded through the City's Capital Improvements Program and in more recent years through the Transportation Department's operating budget. This resulted in the installation of more than 700 speed humps citywide. The Transportation Department's FY 2014-15 operating budget includes \$50,000 for speed hump construction work. Work is performed through contracts administered by the Public Works Department. The fiscal year 2014-15 speed hump contract is underway and includes installation of 12 petitioned speed humps on five streets (Arnette Ave., Jersey Ave., Onslow Ave., Penn Dr., and Stuart Dr.) and the petition-driven removal of five speed humps located on Duke Homestead Road between Carver St. and N. Duke St. The construction costs average \$2,310 per hump for installation and range from \$546 to \$2,948 each for removal depending on the amount of required pavement structure repair. Receiving petitions to

remove speed humps are rare; and staff recalls just two such instances of this occurring, including the pending Duke Homestead Rd. project. Generally, speed humps are easily installed, relatively low-cost, and highly effective in reducing speeds.

Issues and Analysis

The Transportation Department administers the speed hump policy. This includes receiving residents' requests for speed humps, performing the required studies, collecting traffic speed and volume data, determining eligibility, preparing petitions, and providing project notifications. As indicated in the policy, the study process includes consultation with emergency service providers. Due to the cumulative effect of speed humps on first responder response times, the Durham Fire Department has steadily increased its concerns and objections to the placement of new speed humps.

The Fire Department cites increased response times for emergency medical services, structure fires and first alarm assignments and their decreasing adherence to established response time performance measures. As one example, the actual response time over the past two years from Fire Station 7, (3919 N. Duke St.) to calls at the Eno Valley Swim Club located 1.8 miles away ranged from 5.5 minutes to a little more than 8 minutes. The average actual response time was 6.8 minutes. The response time should average 4 minutes. The response time is adversely affected by the route's nine speed humps located on Rippling Stream Road. The Fire Department estimates that each speed hump delays first responders by 10 seconds and varies by vehicle size. While this is one example, speed humps are increasingly affecting response times citywide. Due to these impacts, the Fire Department expressed concern with the construction of additional speed humps.

The Transportation and Fire Departments met on several occasions to discuss the speed hump program and policy. All agreed speed humps are an effective traffic calming tool that can contribute to an improvement in the quality of life by reducing excessive vehicle speeding on residential streets. There is also agreement that they are significantly increasing first responder response times with a corresponding adverse community impact. Recognizing this, the departments propose revisions to the speed hump policy. The changes are proposed to limit the installation of new speed humps to less traveled streets which have the most significant speeding violations. The proposed changes include:

1. Increasing the 85th percentile eligibility criteria from 6 mph to 10 mph over the posted speed limit (policy section 2);
2. Reducing a street's maximum daily traffic volume eligibility from 2,500 to 2,000 vehicles per day (policy section 3);

To test the potential policy impact for future speed hump requests, the Transportation Department reviewed speed and volume data collected for 124 speed hump study requests. Of these 43, (35%) would have met the proposed new criteria. Of the remaining cases, 76 (61%) failed to meet the speed requirement, four (3%) exceeded the maximum volume, and one failed both criteria.

Additional policy changes are proposed for clarification. The adopted "Thoroughfare Plan" will soon be superseded by a new "Comprehensive Transportation Plan," therefore the proposed revision in policy section 2. For clarification in the event the Fire Department or other agency objects to speed hump installations that otherwise meet the policy criteria, the City Manager will be the final administrative arbiter (policy section 4). While the current policy allows the

removal of petitioned speed humps where traffic circulation and safety concerns justify their removal, a revision is recommended to clarify that this decision is made by the City Manager (policy section 8). No speed humps have been removed under this policy section. Under unique circumstances (Section 6), there are lower criteria standards for speed hump eligibility within 1,000 feet of schools and parks, or where they might be part of a Police Department comprehensive crime reduction program. The proposed change allows the installation of speed humps in proximity to schools and parks without a public hearing and approval by City Council.

Alternatives

The City Council may choose to continue with the current policy. This will require the Fire Department to continue preparing evaluations and justifications for denying speed hump request which meet all other criteria.

Financial Impact

This item has no direct financial impact. However, the more restrictive policy is expected to result in fewer new speed hump installations and lower associated construction costs. For example, none of the speed humps in the current construction contract met the proposed 85th percentile speed requirement (more than 35 mph). The actual 85th percentile speeds ranged from 31.3 to 34.7 mph. The potential construction cost savings could be \$50,000 per year, the current annual budget appropriation for speed hump construction.

SDBE Summary

The Department of Equal Opportunity/Equity Assurance did not review this item for compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

Attachments

A – Proposed Speed Hump Policy Revisions