



City of Arts & Innovation

City Council Memorandum

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: DECEMBER 13, 2022

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM – PROPOSED REVISIONS

ISSUE:

Review of proposed revisions to the Neighborhood Traffic Management Program regarding the installation of speed humps.

RECOMMENDATION:

That the City Council approve the proposed revisions to the Neighborhood Traffic Management Program regarding the installation of speed humps.

COMMITTEE RECOMMENDATION:

The Mobility and Infrastructure Committee met on July 9, 2020 with Chair Conder, Vice Chair Perry, and Member Hemenway present to consider recommending that City Council approve the removal of speed humps from the Neighborhood Traffic Management Program. After discussion, the motion carried with two aye votes and one no note.

BACKGROUND:

The Neighborhood Traffic Management Program (NTMP) was designed to provide general guidelines for the assessment of traffic issues on local, collector, and arterial roadways throughout the City as well as outline various traffic mitigation measures which may serve as suitable solutions to demonstrated traffic issues.

On May 8, 2008, the Transportation Committee (currently known as the Mobility and Infrastructure Committee) reviewed proposed comprehensive revisions to the NTMP. The Committee voted unanimously to direct Public Works Department staff to integrate recommended additional revisions into the NTMP and present the revised proposal to the Committee for reconsideration.

On August 14, 2008 the Committee reviewed the expanded NTMP proposed revisions and voted unanimously to approve the proposed revisions with a stipulation that an appeal process be

incorporated into the program.

On September 9, 2008, City Council approved the final proposed revisions to the NTMP.

In 2011, the Public Works Department suspended the practice of utilizing speed humps to address speeding concerns. In 2014, the Public Works Director formally discontinued the placement of new speed humps in accordance with their engineering judgement, although, the NTMP was not updated to reflect this traffic control change.

On July 1, 2020, the Transportation Board (Board), with eight of nine members present, reviewed proposed removal of speed humps from the NTMP. The Board members present voted unanimously to recommend the proposed revisions to the NTMP.

DISCUSSION:

The NTMP is a crucial component of the tools utilized by the Public Works Traffic Engineering Division to evaluate and seek resolution of public traffic concerns. Traffic Engineering Division staff collaboratively work with residents to enhance safety throughout our neighborhoods by identifying issues, conducting analyses, determining plausible solutions, and implementing the most appropriate traffic calming measures. The NTMP process takes a comprehensive approach to implementing traffic mitigation measures by considering the potential impacts to adjoining streets and/or nearby communities to ensure that traffic problems are not shifted from one street to another. The Public Works Department previously installed speed humps under the NTMP but formally stopped this practice in 2014, although the last new speed hump installation occurred in 2011.

At the request of our elected officials, the Public Works Department is revisiting the matter regarding speed humps under the NTMP. Expanded use of navigation technologies (e.g. Google Maps, Waze, Apple Maps, etc.) has led to drivers using alternate routes to avoid traffic congestion, shorten drive times, and reach their destinations faster which may include shifting their paths of travel from collector and arterial roadways to local roadways. As a result, a common request received by the Public Works Traffic Engineering Division is for speeding mitigations. For example, nearly 100 requests were received in 2019 alone. Residents will often request or reference speed humps when raising speeding concerns, as the City maintains the humps which were installed prior to 2011.

History of Speed Humps in the Neighborhood Traffic Management Program

Revisions proposed to the NTMP in 2008 were aimed at simplifying the process of identifying and implementing neighborhood traffic calming measures. As directed by the Transportation Committee on May 8, 2008, the Public Works Department incorporated general guidelines, evaluation timelines, and less restrictive criteria for speed hump construction. The expanded revisions included:

- Eliminating the requirement for residents to fund a portion of the costs associated with the implementation of speed humps;
- Requiring that solutions with broad impacts on neighborhoods involve approval by a majority of residents;

- Establishing that installation of solutions defined as “Secondary Solutions” be considered at the discretion of the Public Works Department and that traffic volumes, speed data, and/or field observations would be the basis for identification of solutions in addition to factors, such as: road width, vertical and/or curvilinear alignment, topography, etc., which may impact the use of certain mitigation tools; and
- Changing the speed hump process which required Fire and Police Department approvals prior to considering speed hump installation

Speed hump basic criteria at that time included consideration of the devices on 25 MPH local streets, having no more than two travel lanes, 24-hour traffic volumes between 500 to 2,000 vehicles, and a vertical roadway grade of less than 8%. Additional thresholds included projects allowing for placement of a minimum of two speed humps and at least 30% of total traffic exceeding the speed limit by greater than 5 MPH to demonstrate a persistent speeding concern enabling residents to petition for speed humps. Petition criteria required support from a minimum of 70% of all property owners or residents on the street where the humps are being considered and 100% of residents within 100 feet of the proposed speed hump locations. Thus, petition signatures, street layout, intersecting streets, driveways, manhole covers, etc., were factors in determining speed hump placement with consideration of applicable minimum and maximum distance standards.

In March 2014, the Public Works Director requested the discontinued use of speed humps as a viable speed reduction measure and these devices were removed from the Mitigation Measure Options list associated with our NTMP. Even though a formal revision of the NTMP to exclude the use of speed humps did not occur, their use and practice was halted in response to the Public Works Director’s engineering judgement.

Factors which contributed to the discontinuation of speed humps include:

- 1) Potential diversion of traffic – installation of speed humps often results in speeding traffic diverting to adjacent parallel local roadways;
- 2) Noise – speed humps generate additional noise as a result of vehicles braking and traversing the hump;
- 3) Motorist tendency to speed in between speed humps or speed downstream of humps to make up for lost time;
- 4) Expense of installation (\$4,000 per speed hump, with a minimum of two humps or \$8,000 per location) and cost of maintenance (humps cannot withstand heavy vehicles);
- 5) Delays and disruption to emergency vehicle response times; and
- 6) Increased tendency of speeding when navigation applications direct motorists onto local roads to bypass congestion.

With nearly 100 speed hump requests received during 2019, if only 25 were to qualify, the estimated cost could easily exceed \$200,000 per year. It is anticipated that the rate of requests would increase over time as residents would once again see them as a viable option to address speeding concerns.

A review of local agency policies finds that the City of Corona and the County of Riverside prohibit the use of speed humps in the public right of way. The City of Anaheim's neighborhood traffic management policy has phased approaches that strongly discourage speed humps. The Cities of Moreno Valley and Murrieta do allow for speed hump installation and uses similar criteria to those previously used by the City of Riverside under the NTMP.

Proposed Revisions to the Neighborhood Traffic Management Program

In consideration of the potential negative impacts of speed humps, along with their high cost of installation and maintenance, the City of Riverside Public Works Department recommends the formal removal of speed humps from the NTMP. Alternative traffic calming measures include but are not limited to: deployment of the radar speed feedback trailer, RPD enforcement, posting of speed limit signs, high-visibility pavement markings displaying speed limits, speed feedback signs (preferably through grant funding), LED stop signs, and in some instances neighborhood traffic circles (preferably through grant funding). A matrix to determine the potential effectiveness in reducing speeds for each engineering speed management countermeasure is provided here:

Link: [Engineering Speed Management Countermeasures | FHWA \(dot.gov\)](#)

As shown, the observed reduction in speeds for the following traffic calming measures are: pavement markings displaying speed limits (1-3 MPH), radar speed feedback trailers and dynamic speed feedback signs (reduction of 1-7 MPH), and traffic circles (reduction of 4 MPH).

Costs estimates based on 2021 data for each of the above referenced alternative measures are attached for comparative purposes (Attachment 3).

The Federal Highway Administration (FHWA) offers an excellent resource for information and visual images of various types of traffic calming measures on their website which can be accessed via the following hyperlink: https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm

Additional options for consideration include potential pilot projects involving the temporary deployment of rubber speed humps on local residential streets and/or installation of pavement murals or art crosswalks (Attachments 4 and 5). The estimated cost for rubber speed humps is \$3,000 per unit. The rubber speed humps would be installed on a temporary basis and intended to be rotated to other similar local streets after a pre-determined amount of time. Using removable/temporary materials will allow staff to be responsive to speed hump requests while avoiding the long-term costs associated with traditional speed humps. During the pilot program, staff would additionally review potential impacts of temporary speed hump installation to the underlying pavement and their effectiveness in serving as a reminder to motorists to reduce vehicle speeds. Staff would additionally review their durability and potential to serve as a rotating and temporary traffic control device. Staff will coordinate with other local agencies that have already constructed pavement murals and art crosswalks to incorporate any lessons learned from their programs. The pilot projects would be temporary in nature and additional research would be required to select pilot project materials, determine estimated costs, and formulate practices and policies which would be presented later for consideration. The Public Works Traffic Engineering Division will bring presentations to the Transportation Board to initiate the rubber speed hump pilot and pavement murals/art crosswalks program.

STRATEGIC PLAN ALIGNMENT:

This proposal aligns with **Strategic Priority 2 – Community Well-Being** and **Goal 2.4 - Support** programs and innovations that enhance community safety, encourage neighborhood engagement, and build public trust.

This item aligns with each of the five Cross Cutting Threads as follows:

1. **Community Trust** – Revision of the Neighborhood Traffic Management Program establishes Community Trust through the transparent methodology and public process set forth at multiple public meetings. The NTMP revisions are based on engineering judgement as determined by the Public Works Department.
2. **Equity** – The NTMP provides safe usage of the public right of way for all roadway users including vehicles, bicycles and pedestrians.
3. **Fiscal Responsibility** – The savings from the initial capital costs and maintenance costs of multiple speed humps are better utilized when implementing other cost-effective traffic calming measures to regulate speeds on the roadway, to inform motorists about the design speed, and to increase safety.
4. **Innovation** – This project is neutral towards this cross-cutting thread
5. **Sustainability & Resiliency** – This project is neutral towards this cross-cutting thread.

FISCAL IMPACT:

There is no immediate fiscal impact associated with this action at this time. Staff will return at a later date to present any fiscal impact associated with direction received from City Council.

Prepared by: Gilbert Hernandez, Public Works Director
Certified as to availability of funds: Edward Enriquez, Interim Assistant City Manager/Chief Financial Officer/City Treasurer
Approved by: Kris Martinez, Assistant City Manager
Approved as to form: Phaedra A. Norton, City Attorney

Concurs with:



Chuck Conder, Chair
Mobility and Infrastructure Committee

Attachments:

1. Neighborhood Traffic Management Program Brochure
2. Speed Hump Specification
3. Alternative Traffic Calming Measures Cost Estimates Based on 2021 Data
4. Sample Rubber Speed Hump
5. Sample Images of Art and Mural Crosswalks
6. Transportation Board Meeting Minutes – July 1, 2020
7. Mobility & Infrastructure Committee Meeting Minutes – July 9, 2020
8. Presentation