



City Council Memorandum

City of Arts & Innovation

TO: HONORABLE MAYOR AND CITY COUNCIL DATE: MAY 7, 2024

FROM: PUBLIC WORKS DEPARTMENT WARDS: ALL

SUBJECT: NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM – PROPOSED REVISIONS

ISSUES:

Review of proposed revisions to the Neighborhood Traffic Management Program (NTMP) to reinstate the use of speed humps with modifications to the “Traffic Conditions” qualifying criteria and authorize reprogramming of Measure A funds in the amount of \$100,000.

RECOMMENDATIONS:

That the City Council:

1. Approve the proposed revisions to the Neighborhood Traffic Management Program (NTMP) to reinstate the use of speed humps as a local street secondary mitigation measure option with modifications to the “Traffic Conditions” qualifying criteria; and
2. Authorize the Chief Financial Officer, or designee, to transfer \$100,000 in Measure A funds from the Arterial Interconnections Project to the Speed Hump Traffic Calming Project account.

COMMITTEE RECOMMENDATION:

On August 10, 2023, the Mobility and Infrastructure Committee reviewed this matter, all three members were present. The Committee voted unanimously to recommend that the City Council consider the proposed revisions to the Neighborhood Traffic Management Program (NTMP).

BACKGROUND:

The Neighborhood Traffic Management Program (NTMP) was designed to provide general guidelines for the assessment of traffic concerns on City roadways and outlines traffic mitigation measures which may serve as suitable solutions to demonstrated traffic issues.

On July 1, 2020, the Transportation Board (Board), with eight of nine members present, reviewed and unanimously approved a proposal to remove speed humps from the NTMP.

On July 9, 2020, the Mobility and Infrastructure Committee (Committee) reviewed this matter with all three members present. The Committee voted 2 to 1 (2 in support and 1 in opposition) to recommend the proposed NTMP revisions.

On December 13, 2022, the City Council reviewed proposed revisions to the NTMP. Following discussion, City Council voted 6 to 1 (6 in support and 1 in opposition) to refer the proposals back to the Mobility and Infrastructure Committee.

On August 10, 2023, the Mobility and Infrastructure Committee voted unanimously to recommend that the City Council consider the proposed revisions to the NTMP including the reinstatement of speed humps.

DISCUSSION:

The Neighborhood Traffic Management Program (NTMP) is one of many resources utilized by the Public Works Traffic Engineering Division to evaluate public traffic concerns and implement mitigation or other measures where appropriate to improve traffic safety and/or operations to address issues and concerns. The NTMP process takes a comprehensive approach to implementing traffic mitigation measures by considering the potential impacts to adjoining streets and/or nearby communities. Speed humps were previously installed under the NTMP until 2011 when their use was suspended. Utilization of speed humps was formally stopped in 2014 at the direction of the Public Works Director resulting from concerns regarding the potential diversion of traffic, noise, expense, impacts to emergency vehicles, and concerns regarding their efficacy. Each of these elements were discussed with the Committee to develop a comprehensive approach to reintegrate speed hump installation into the NTMP's assessment and petition process.

Alternative Mitigation Measures for Local Streets:

While the focus of this report is the reinstatement of speed humps into the Neighborhood Traffic Management Program, the following alternative measures were discussed with the Committee and would continue to serve as traffic calming measures as part of the NTMP. Because not all streets are eligible for speed humps, the following measures are important tools for the Public Works Department to address speeding concerns. These tools are referenced below:

Initial / Primary Measures:

- Riverside Police Department spot traffic enforcement
- Deployment of the radar speed feedback trailers or Changeable Message Boards; and/or
- Posting of speed limit signs.

Secondary Measures (if Initial / Primary Measures are unsuccessful):

- Centerline striping / Raised reflective markers (RPM's);
- Curve warning or Chevron signs;
- Stop signs;
- Truck or turn prohibition signs;
- Street narrowing by striping; and/or

- Speed feedback signs (typically grant or project funded).

Additional Measures not reflected in the NTMP which may be considered in some instances (if Secondary Measures are unsuccessful):

- Flashing LED Edge lit Stop Signs (primarily grant funded);
- Flashing LED lit Curve warning or Chevron signs (primarily grant funded);
- Speed limit pavement legend; and/or
- Neighborhood traffic circles (grant funded or project funded).

A matrix to determine the potential effectiveness in reducing speeds for several of the engineering speed management countermeasures can be found on the Federal Highway Administration's (FHWA) webpage.

The FHWA's observed reduction in speeds for the following alternative traffic calming measures are:

1. Speed limit pavement legend: 1-3 MPH reduction;
2. Radar speed feedback trailers: 1-7 MPH reduction;
3. Speed feedback signs: 1-7 MPH reduction; and
4. Traffic circles: 4 MPH reduction.

Cost estimates for a sampling of the above referenced alternative measures are attached for comparative purposes (Attachment 3).

Key Considerations Regarding Speed Hump Utilization:

Staff are keenly aware of the financial and workload impacts associated with reinstating speed humps, which required staff to evaluate the eligibility criteria. Details regarding these factors are listed below:

1. Volume of requests – it is common for the department to receive over 100 requests for speed humps each calendar year, which shows a continued high public interest in speed humps which could potentially result in a high number of speed hump installations annually;
2. Cost factors – if only one-fourth of the requesting neighborhoods were to qualify for speed humps, the estimated cost for 30 projects each year would be between \$480,000 and \$960,000 per year based on projects installing between the minimum number of 2 humps and 4 humps per project location; and
3. Escalation in the rate of requests – it is anticipated that requests would increase over time as changes in driver behavior continue, traffic volumes continue to rise, and motorists using alternate routes would impact additional neighborhoods and local roadways which require additional countermeasures and mitigations.

Proposed Revisions to the NTMP – Proposed Reinstatement of Speed Hump Use with Criteria Modifications:

Pursuant to the City Council's direction, and due to:

- Ongoing resident requests for speed humps as a traffic calming measure;
- Increased cut-through traffic as the result of elevated use of navigation tools directing motorists to alternative routes via local, residential streets to bypass traffic congestion on larger collector and arterial roadways or freeways to reach their destinations;
- Changes in driver behaviors (increases in distracted and non-compliant drivers), and
- Speed hump effectiveness at reducing travel speeds if proper placement is achieved;

Staff recommends the use of speed humps as a local roadway secondary mitigation measure option under the NTMP be reinstated with modifications to the "Traffic Conditions" component of the qualifying criteria. The FHWA matrix for alternative traffic calming measures and their potential effectiveness in reducing speeds (discussed above for alternative measures) showed the observed reduction in speeds with the use of speed humps within the range of 5-13 MPH.

Historic records show that in prior peak speed hump project years 61 humps were installed in 2005, 56 were installed in 2002, and 45 were installed in 2001 under prior qualifying criteria thresholds for project implementation. As construction and materials costs have significantly increased, budget constraints would not support this level of speed hump funding. Thus, proposed modifications to the "Traffic Conditions" component of the qualifying criteria (outlined in the table below) are recommended to enable restoration of speed hump use as a secondary traffic mitigation measure option for 25 MPH local roadways and manage related annual costs by targeting utilization to qualifying streets where data shows substantially elevated traffic speeds and volumes.

The table below provides a comparison of previous and proposed speed hump qualifying criteria:

SPEED HUMP QUALIFYING CRITERIA			
	<i>Roadway Characteristics</i>	<i>Traffic Conditions</i>	<i>Petition Signature Requirements</i>
Previous & Proposed (Unchanged)	<ul style="list-style-type: none"> ➤ Local Street; ➤ 25 MPH Speed Limit; ➤ 2 Travel Lanes; and ➤ Grade less than 8% 		
Previous		<ul style="list-style-type: none"> ➤ 500 Minimum 24-Hr. Traffic Volume ➤ 1,999 Maximum 24-Hr. Traffic Volume ➤ Minimum 30% of Total Traffic Exceeds Speed Limit by More Than 5 MPH 	<ul style="list-style-type: none"> ➤ Minimum 70% of all owners / residents in support; and ➤ 100% support within 100 feet of the proposed speed hump locations
Proposed		<ul style="list-style-type: none"> ➤ 750 Minimum 24-Hr. Traffic Volume; 	<ul style="list-style-type: none"> ➤ Minimum 70% of all owners / residents in

		<ul style="list-style-type: none"> ➤ 1,999 Maximum 24-Hr. Traffic Volume; and ➤ Combined 85th% Speed of 37 MPH or greater 	support
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Options for speed hump project installation may include City forces for the speed hump construction, sign fabrication and installation, and striping/markings improvements with total estimated costs per hump of \$8,000 (based on recent project bid). Consideration of equal speed hump funding allocations per Ward may also be prudent. An alternative to installation utilizing City crews is the scheduling of installation of speed humps as part of an upcoming or future Capital Improvement Project (CIP) which may defer installation costs until roadway paving is scheduled to occur and result in minor cost savings as the result of installation as part of a larger scale CIP project; however, this practice could create issues or delays due to the passing of time with regard to changes in residents along a project street versus when the qualifying speed hump petition is signed.

Funding constraints can be resolved by annually setting aside a pre-determined amount of funds for speed humps and utilizing the funding for speed hump construction until all the funds have been exhausted for that fiscal year. The potential number of speed humps would be limited by fund availability and the remaining approved speed hump requests would then be deferred to future funding cycles.

Because limited funding is available at this time, Traffic Engineering Staff will need to apply additional scrutiny to the qualifying metrics for new speed hump installations, while also bearing in mind the equitable geographical distribution of the improvements. Some requests, while they may not rank as favorably in comparison to other requests, may occur sooner if they can be included as part of planned pavement maintenance work, as the City will benefit from economies of scale.

An initial appropriation in the amount of \$100,000 is recommended to construct speed humps for eligible residential streets. Staff anticipates accommodating 4 to 6 speed hump requests with the initial appropriation contingent upon the number of speed humps constructed for each street. If the initial appropriated budget is exhausted, staff may forward a subsequent budget appropriation request to City Council.

STRATEGIC PLAN ALIGNMENT:

The proposed revisions to the NTMP align 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** – Revisions to the Neighborhood Traffic Management Program (NTMP) establish Community Trust through the transparent methodology and public process set forth at multiple public meetings. The proposed NTMP revisions are based

on engineering judgement, cited benefits, and public interest.

2. **Equity** – The NTMP provides safe usage of the public right of way for all roadway users including vehicles, bicycles, and pedestrians. Proposed restoration of the use of speed humps as a secondary mitigation measure option under the NTMP for local 25 MPH streets and the modified qualifying criteria apply to all eligible neighborhoods and street segments.
3. **Fiscal Responsibility** – The proposed modifications to the speed humps technical qualifying criteria will aid in reducing potential annual project costs by targeting use to 25 MPH local streets experiencing both high traffic volumes and substantial speeding to provide traffic calming and increase safety at the most impacted locations.
4. **Innovation** – No innovation noted for the reinstatement of speed humps.
5. **Sustainability & Resiliency** – The proposed restoration of the use of speed humps as part of the NTMP will provide another potential traffic calming tool to reduce speeding and increase safety in eligible residential neighborhoods.

FISCAL IMPACT:

The total fiscal impact of this action is \$100,000. Upon Council approval, a reprogramming of \$100,000 in funding from the Measure A Fund, Arterial Interconnect Project to the Speed Hump Traffic Calming Project as per the table below will be recorded. With the transfer of the Measure A funds shown in Table 1 below, sufficient funds will be available in Measure A, Speed Hump Traffic Calming project account number 9927230-440313 for the reinstatement of the Speed Hump Traffic Calming Program.

Potential costs associated with the restoration of the use of speed humps with modifications to the qualifying criteria as a secondary mitigation measure option would vary annually depending on the number of qualifying speed humps projects constructed and project sizes. With nearly 120 speed hump requests received in 2021 and 2022, if only 30 streets per year were to qualify the estimated costs at minimum would be \$480,000 per year (based on a minimum of 2 speed humps per location and estimated cost of \$8,000 per speed hump) and could reach an estimated \$960,000 per year (based on 4 speed humps per location) as many streets can accommodate more than 2 speed humps.

Table 1 – Project Fund Transfer

Fund	Project	Account	Amount
Measure A	Arterial Interconnect	9586233-440313	\$100,000
Total Reduction:			\$100,000
Measure A	Speed Hump Traffic Calming	9927230-440313	\$100,000
Total Addition:			\$100,000

Prepared by: Philip Nitollama, City Traffic Engineer
 Approved by: Gilbert Hernandez, Public Works Director

Certified as to

availability of funds: Kristie Thomas, Finance Director/Assistant Chief Financial Officer

Approved by: Kris Martinez, Assistant City Manager

Approved as to form: Phaedra A. Norton, City Attorney

Attachments:

1. Revised NTMP Brochure
2. Proposed Speed Hump Policy Guidelines & Procedures
3. Alternative Traffic Calming Measures – Cost Estimate Based on 2021 Data
4. City Council Meeting Minutes – December 13, 2022
5. Infrastructure & Mobility Committee Meeting Minutes – August 10, 2023
6. Presentation