City of Napa
Neighborhood Traffic Calming Program (NTCP)

Community Outreach Meeting #2
March 15, 16, and 22, 2023
Contact:
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Transportation Planner
City of Napa Staff

Presenter:
Ruta Jariwala
Principal Engineer
TJKM Transportation Consultants
Workshop Agenda

- Program Overview
  - NTCP Goals
  - Project Timeline
  - Roadway Type
- Community Input Summary
- Traffic Calming Toolbox
  - Introduction to Traffic Calming
  - Traffic Calming Tiers
  - Traffic Calming Measures
- Decision Making Process
- Feedback and Next Steps
**NTCP Goals**

- **Engage** community members from the onset to finish – a community-driven process

- **Develop** traffic calming solutions and toolbox based on the 4 E’s – Education, Empowerment, Enforcement, and Engineering

- **Identify** a clear decision-making process (application and petition)
Project Timeline

- **Project Start**
  - Review of Background Studies and Plans

- **Listening Workshop**

- **Community Workshop 1**
  - (Nov. 16, 17, 29, 30, & Dec. 1, 2022)

- **Preliminary Toolbox and Process**
  - Draft City’s Updated Neighborhood Traffic Calming Program (NTCP)

- **Community Workshop 2**
  - (March 15, 16, & 22, 2023)

- **Finalize Toolbox and Process**
  - Fine-Tune and Incorporate Final Comments

- **Community Workshop 3**
  - (Summer 2023)

- **Publish Updated NTCP Guide**

- **Present to City Council for Adoption**
Roadway Types

- **Local Roads:**
  - Provides direct access to abutting land uses.
  - Typically up to 700 vehicles per day (vpd).

- **Collectors:**
  - Gathers traffic from local roads and channels it to arterial roadways.
  - Typically up to 6,300 vpd.

- **Minor Arterials:**
  - Interconnects principal arterials and serves trips of moderate length.
  - Typically up to 14,000 vpd.

- **Principal Arterials:**
  - Serves major activity centers and longer trips.
  - Typically up to 27,000 vpd.

Source: DKS, 2021; Napa County, 2018; City of Napa, 2021; Dyett & Bhatia, 2021
NTCP Roadways

- The NTCP is primarily intended for providing traffic calming measures on Local Streets and Collector Roads.

- The City has recently updated its Local Roadway Safety Plan (LRSP) process which identified countermeasures to address traffic safety concerns (including speeding) on Arterial and Collector Roads. The LRSP is one of multiple programs that focuses on major thoroughfares.
Community Input Summary
Input to Date

- 486 Total Concerns
- Responses Collected From:
  - Workshop #1 Meetings
  - Online Map Tool
  - Emails
  - Phone Calls
Community Input Summary

Traffic Concerns by Type

Concern Category

- Speeding: 169
- Pedestrian Safety: 138
- Bicycle Safety: 72
- Intersection Control Issues/Violations: 37
- Street Layout: 27
- Lighting and Visibility: 25
- Cut Through: 18
Community Input Summary

Citywide Roadways with Highest Reported Concerns
(Includes Principal Arterials, Minor Arterials, Collectors, and Local Roads)

Roadways

<table>
<thead>
<tr>
<th>Roadways</th>
<th>Reported Concerns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jefferson Street</td>
<td>43</td>
</tr>
<tr>
<td>Imola Avenue</td>
<td>28</td>
</tr>
<tr>
<td>Redwood Road</td>
<td>26</td>
</tr>
<tr>
<td>3rd Street</td>
<td>17</td>
</tr>
<tr>
<td>California Boulevard</td>
<td>17</td>
</tr>
<tr>
<td>Linda Vista Avenue</td>
<td>17</td>
</tr>
<tr>
<td>1st Street</td>
<td>16</td>
</tr>
<tr>
<td>Browns Valley Road</td>
<td>16</td>
</tr>
<tr>
<td>Silverado Trail</td>
<td>15</td>
</tr>
<tr>
<td>Trower Avenue</td>
<td>12</td>
</tr>
</tbody>
</table>
Community Input Summary

NTCP-Focused Roadways with Highest Reported Concerns
(Includes Collectors and Local Roads)
Community Input Summary

**Concerns by Location**

- **Intersection Concerns:** 266
- **Corridor Concerns:** 220

**Concerns by Road Classification**

- **Principal Arterial:** 16%
- **Major Collector:** 33%
- **Minor Arterial:** 32%
- **Local St:** 18%
- **NTCP:** 48%
- **Trail:** 1%

- **48% of concerns were reported along “Arterial” Roadways.**

- **51% of concerns were reported along “Collectors” and “Local Roads.”**
Community Input Summary

Concerns at Intersections

Speeding (30%) and Pedestrian Safety (28%) were the top concerns reported at intersections.
Speeding (41%) and Pedestrian Safety (29%) were the top concerns reported along roadway segments.
Traffic Calming Toolbox
Introduction to Traffic Calming

- Improves safety
- Increases mode choice
- Creates standardized and transparent process
- Streamlines applications
- Increases efficiency in administrative procedures
- Results in community-oriented solutions for community concerns
- Allows City to invest responsibly
The 4 E’s of Traffic Calming

**Education**
- Educational materials
- Safety campaigns
- Safety trainings

**Engineering**
- Assess existing conditions
- Low-cost to high-cost
- Near-term to long-term

**Enforcement**
- Increased patrols
- Focused enforcement

**Empowerment**
- Community liaison
- Safety initiatives
Introduction to the Toolbox

- An NTCP provides a list of traffic calming measures. Each tier has its pros, cons, and suitable environment for application.
- The Toolbox allows the community and City staff to assess each tier and find the most appropriate measure to address a safety or speeding concern.
- There are three categories of devices: **Tier I, Tier II, and Tier III.**
Traffic Calming Tiers

**Tier I**
Involves minor engineering analysis and design considerations, some community outreach, and lower implementation costs.

**Tier II**
Involves moderately complex engineering analysis and design, community outreach, and implementation costs.

**Tier III**
Involves extensive engineering analysis and design, community outreach, higher implementation costs, and is slower to implement.
Tier I Traffic Calming Measures

Edgeline/Centerline Stripping  Speed Legends  Signage  Botts Dots

High Visibility Crosswalks  Targeted Location Speed Enforcement
Tier II Traffic Calming Measures

- Angled Parking
- Dynamic Speed Feedback Signs
- Rectangular Rapid Flashing Beacon

Street Smart Program *(May Be Tier II or Tier III)*

Increased Patrol and Warnings/Citations *(May Be Tier II or Tier III)*

Multimodal Road Reconfiguration (Road Diet) *(May Be Tier II or Tier III)*

STREET SMART
Tier III Traffic Calming Measures - Continued

- Speed Cushion
- Speed Table
- Raised Crosswalks
- Raised Intersection
- Diagonal Diverters
- Partial Closure
- Full Closure
**Description:**
- Flashing beacons are used to warn drivers of school crossings and other situations where such cautions are warranted. Typically used on lower speed roadways to enhance pedestrian crossings with high demand or vulnerable users.

**Benefits:**
- Effective in alerting drivers to stop.
- Enhances bicyclist and pedestrian safety.
- Effective in reducing pedestrian collisions.

**Disadvantages:**
- May give non-auto users a false sense of safety.
- Increased implementation and maintenance costs.
- Pedestrians may choose to not push the button and cross as they deem appropriate, conflicting with driver expectations.

**Implementation:**
- Suitable for midblock locations with high traffic volumes, school zones, and crossings with high bicycle and pedestrian usage.
**TIER III | Bulbou**

**Description:**
- Bulbouts are located at intersections to tighten the curb radii and decrease the width of the roadway.

**Benefits:**
- Increases visibility of pedestrians.
- Reduces pedestrian crossing distances and time.
- Encourages slower turning speeds.

**Disadvantages:**
- Not viable for roadways with high posted speed limits.
- Potential loss of on-street parking.
- May impact emergency vehicle truck and bus access.
- May impact drainage conditions.

**Implementation:**
- Suitable for downtown areas, locations with high pedestrian volumes, and in school zones.

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**Toolbox Example**

- **Conceptual:** Bulbouts at Intersections
- **Intersection:** Wyatt Ave & Birkdale Dr
TIER III Speed Cushion/Speed Table

- **Description:**
  - Speed cushions are vertical pavement deflections with a raised parabolic shape that extend across the travel way perpendicular to traffic and provide cutouts to accommodate emerge vehicle axle widths. The raised surface is higher and occurs over a shorter travel distance than for other vertical devices. In contrast, speed tables incorporate a flat-topped “table” area which provides for a relatively gentle transition.

- **Benefits:**
  - Reduces midblock travel speeds.

- **Disadvantages:**
  - Speed reduction limited to within a few hundred feet of the treatment.
  - Causes discomfort for all drivers.
  - Increases noise and air pollution.
  - Delays emergency response vehicles.

- **Implementation:**
  - ≤ 4,000 vehicles per day, ≤ 30 mph speed limit.
  - Typically installed 500 feet apart.
TIER III Single-Lane Roundabout

- **Description:**
  - Roundabouts are located at intersections and feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points.

- **Benefits:**
  - Reduces operating speeds at the intersection.
  - Yield-controlled design means fewer stops, less delay, shorter queues.
  - Effective in reducing fatal and severe injury collisions.

- **Disadvantages:**
  - May require additional right-of-way from adjacent properties.
  - Potential loss of on-street parking.
  - Not recommended at locations with significant horizontal or vertical curvature. Special planning and design considerations are required.

- **Implementation:**
  - Recommended for two-lane intersections with low left turning volume and low heavy truck usage.
  - ≤ 20,000 vehicles per day, ≤ 30 mph speed limit, ≤ 6% grades.
NTCP Decision Making Process
### Application Evaluation Criteria

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<thead>
<tr>
<th>Criteria</th>
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<tbody>
<tr>
<td>85&lt;sup&gt;th&lt;/sup&gt; Percentile Speed</td>
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<tr>
<td>Crash History</td>
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<tr>
<td>Traffic Volumes</td>
</tr>
<tr>
<td>Truck Traffic</td>
</tr>
<tr>
<td>Vicinity to Schools</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Generators</td>
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</tbody>
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Application Process (Example)

• A Resident submits application to City.

Evaluation
• City collects data and reviews information.
• City notifies Resident of determination and next steps.

Notification

Support
• Collection of supporting signatures for neighborhood affected.
• City determines prioritization of project and determines available/future funding.

Prioritization

Implementation
• City implements traffic calming measure.

Application
Your Feedback Matters

Project Website:
https://www.cityofnapa.org/1180/Neighborhood-Traffic-Calming-Program

Comments can also be provided using the following link or QR code:
https://www.surveymonkey.com/r/GNX8R9C
Next Steps

▪ Finalize Toolbox and Process
▪ Update City’s Neighborhood Traffic Calming Program Guidelines
▪ City Council Review and Approval