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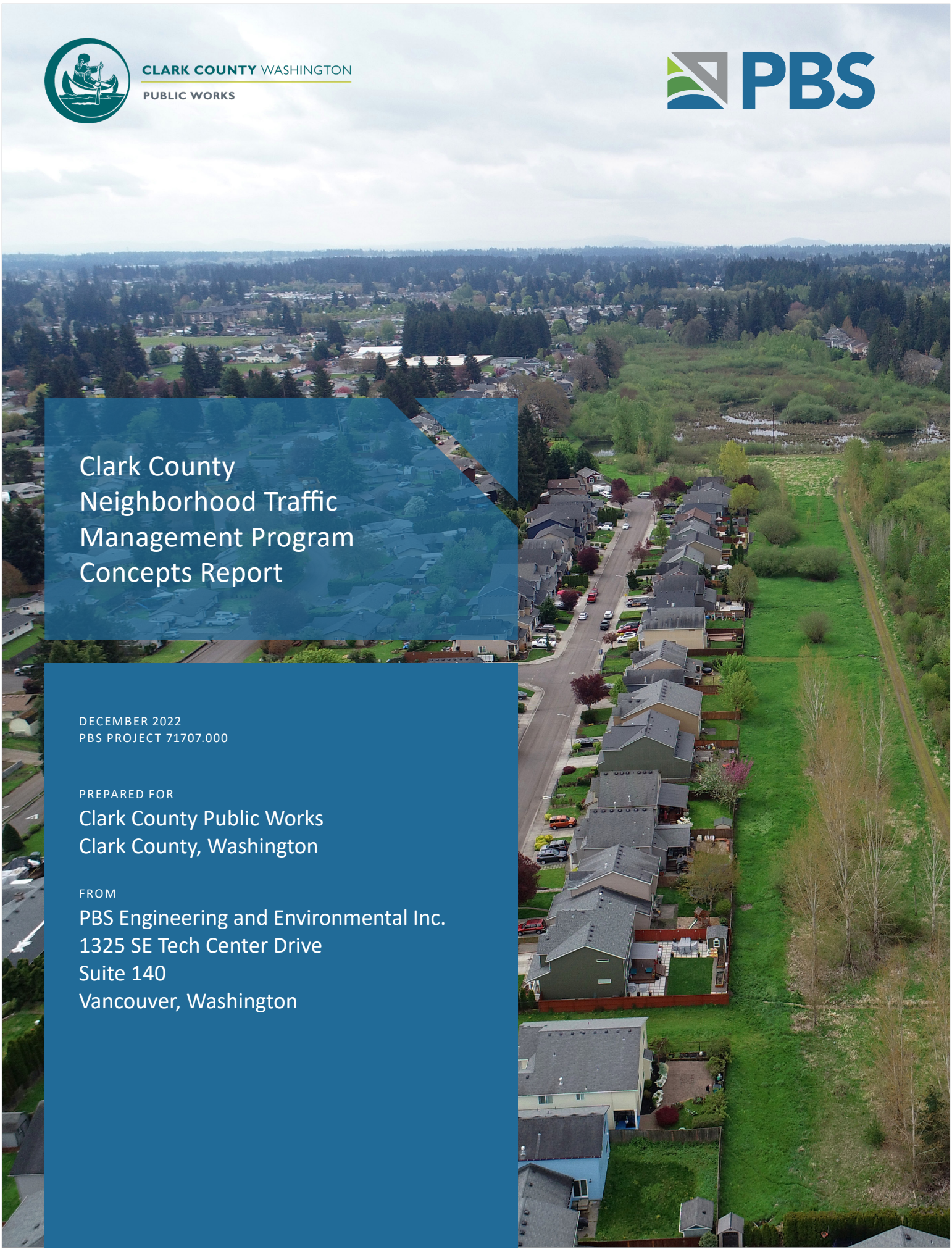

Clark County Neighborhood Traffic Management Program Concepts Report

DECEMBER 2022
PBS PROJECT 71707.000

PREPARED FOR
Clark County Public Works
Clark County, Washington

FROM
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Vancouver, Washington

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1. Overview

According to the Institute of Traffic Engineers, traffic calming is the combination of physical measures that reduce the negative effects of motor vehicle use, alter driver behavior, and improve conditions for non-motorized street users. The negative effects of vehicle speeds and/or excessive traffic volumes on neighborhood streets can diminish the residential quality of life. While residential life "quality" is subjective, vehicle speeds and traffic volumes can be quantified and compared against adopted community or industry standards. Experiences reinforce this notion as some community residents embrace traffic calming, while others are not so willing to accept the inconveniences of traffic calming in lieu of a perceived improvement in residential quality of life.

Throughout the years, Clark County (County) has received many requests, suggestions, and complaints from residents regarding traffic concerns in or near their neighborhoods. Currently, County staff do not posess the procedures to formally address these concerns.

With this in mind, Clark County, with the assistance of PBS Engineering and Environmental Inc. (PBS), has developed three neighborhood traffic management program (NTMP) concepts that include a systematic approach to handling neighborhood traffic requests and applying the most appropriate traffic management strategy for the situation at hand. Clark County's NTMP will engage the Neighborhood Association Council of Clark County (NACCC) during the identification and development of each individual strategy that will address the particular problem they are facing.

Figure 1. *Neighborhood Traffic Requests*

The County's NTMP is based on a combination of parallel strategies, which range from education to engineering solutions.

- Education—Sharing information and raising awareness about the safest and best ways to share the road by targeting distracted drivers, and informing pedestrians and bicyclists. The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their actions.
- Engineering—Identifying physical measures constructed to lower speeds, improve safety, or otherwise reduce the impacts of motorized vehicles. The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
- Enforcement—Targeted enforcement to reinforce the emphasis on education and engineering aspects of the program. County staff will collaborate with the Clark County Sheriff department to enforce speed limits.
- Equity—The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.

The NTMP provides a mechanism for residents to work with the County. The NTMP describes in detail the steps involved in participating in the program, from the initial statement of a problem to implementing traffic management strategies to address the issues identified.

2. Previous Traffic Calming Programs

Clark County first developed a neighborhood traffic program in 1994. It was included in Appendix A of the *Traffic Manual*. The 1994 *Traffic Manual* can be found in Appendix C: NTMP Background and Best Practices of this document. The 1994 *Traffic Manual* document focused on the application standards and incorporation of the strategy to solve the resident's concerns. In 1999, Clark County adopted the Clark County Neighborhood Traffic Calming Devices program. Section 12.05.290—Urban Neighborhood Traffic Management of this program addressed where the standards could apply and the standards for traffic calming measures and traffic calming devices. The 1999 program can be found in Appendix C: NTMP Background Research and Best Practices.

Nearly identical language appears in the current *Clark County Code,* Section 40.350.030, Street and Road Standards, section B, Standards for Development Review, number 13, Urban Neighborhood Traffic Management. There are no standards within chapter 40.350 Transportation and Circulation that preclude the incorporation of a NTMP.

3. Purpose and Need

Clark County periodically receives concerns from residents about excessive vehicle speeding and high cut-through traffic on neighborhood streets. In many instances, when motorists are faced with congested arterials or collectors, they choose to use neighborhood streets. This consequently led to an increase in demand from residents for traffic calming devices to be installed to mitigate the subsequent traffic problems that are either real or perceived.

In reaction to these concerns, as well as the desires of the County to provide residents with a methodological approach of managing and quickly responding to concerns, County Council requested the development of three neighborhood traffic management programs (levels 1, 2, and 3) for Clark County. The development of these three concepts are intended to supplement and formalize current County practices.

The NTMP developed for Clark County will provide a framework which can be consistently applied in addressing a myriad of traffic safety concerns as well as quality of life issues as they are encountered by residents and the County. These concerns include limited sight distance, on-street parking, pedestrian and bicyclist safety, right-of-way control, high incidence of accidents, excessive vehicle volumes, and excessive speeding. The NTMP concepts were designed, however, to be flexible enough to respond to case-by-case situations and to be amended as necessary. All implementations shall adhere to the guidelines provided in this report unless decided otherwise by Clark County's Traffic Engineer.

Clark County desires to develop a countywide safety program by engaging with the NACCC, collecting specific safety concerns, and developing a sustainable, data driven, and fundable program to identify, prioritize, and implement feasible solutions annually.

4. Mission, Goals, Objectives, and Strategies

4.1 Mission Statement

The mission of the Clark County NTMP is to provide traffic calming solutions where appropriate in order to influence driver behavior, improve the neighborhood quality of life, and create more safe and livable local streets.

4.2 Goals

The overall goals of the NTMP are as follows:

1. Enhance neighborhood livability and safety across all modes of travel by reducing the speed and impact of vehicular traffic on residential streets, while providing for the safe and efficient movement of persons and goods throughout Clark County.
2. Promote safe and comfortable conditions for residents, pedestrians, bicyclists, and motorists on local streets, while preserving access for emergency vehicles, public transit, and other users.
3. Provide a consistent, feasible, and manageable procedure for addressing neighborhood traffic concerns on local streets, collectors, and arterials where a documented speeding problem, unacceptable cut-through volume, or other traffic factors adversely affect residential safety.
4. Promote diversity, equity, and inclusion in Clark County neighborhoods.

4.3 Objectives

1. To reduce vehicular speeds on local streets.
2. To reduce the number of cut-through vehicles on residential streets.
3. To create a more inviting and safe place to walk and bike.
4. To enhance pedestrian, bicycle, and public transportation access.
5. To effectively address the public interest of emergency responders.
6. To address parking for businesses and schools that spill over into neighborhoods.
7. To heighten awareness and traffic safety in and around school zones.
8. To create awareness around traffic safety though targeted education and outreach.
9. To encourage resident involvement in neighborhood traffic management activities.
10. To expand public involvement in locations where the NACCC is inactive.
11. To provide a process for accepting and addressing neighborhood traffic management requests.

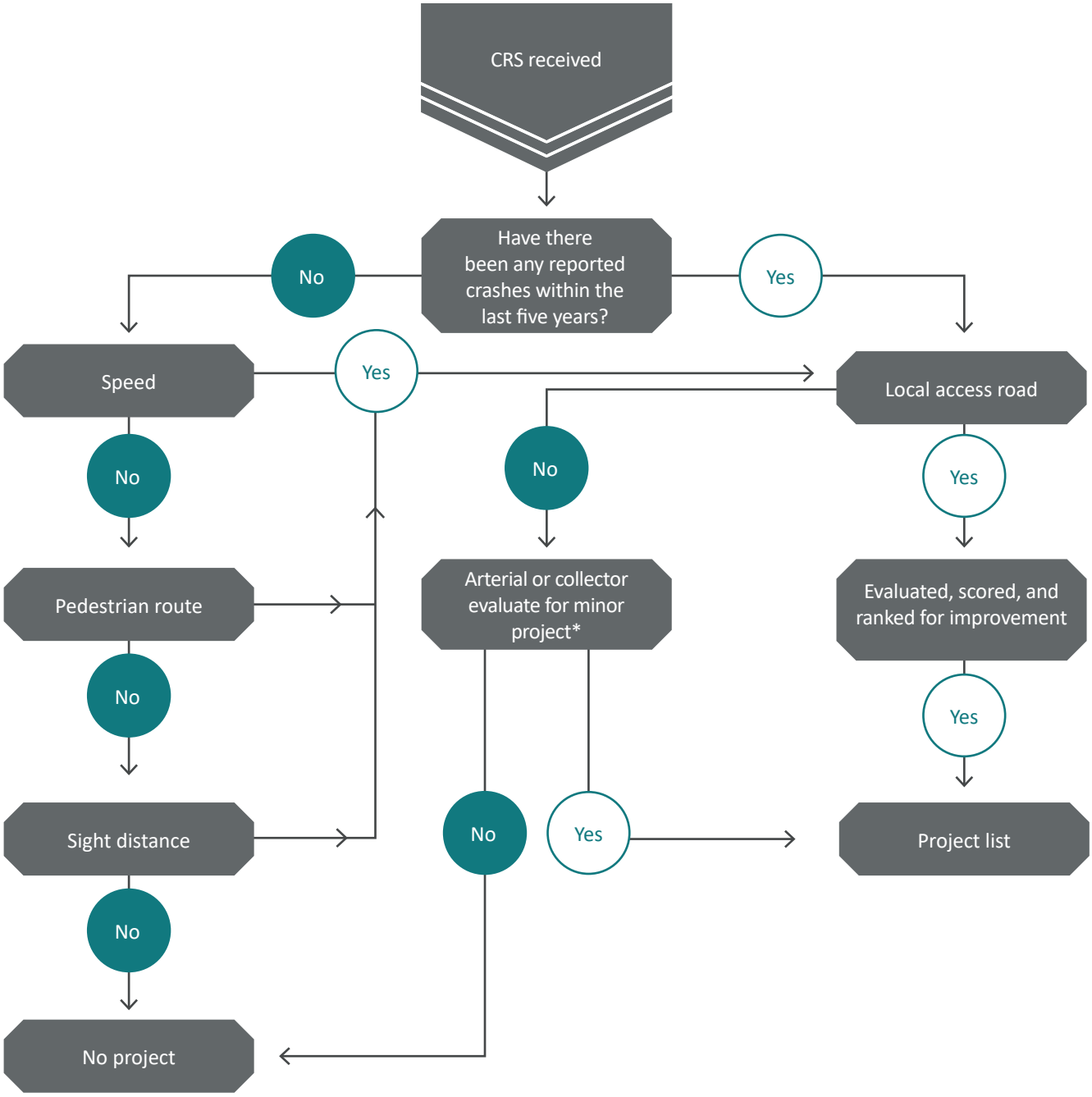
4.4 Strategies

1. Establish a clear process to prioritize neighborhood traffic calming activities.
2. Prioritize outreach to areas of the County where the NACCC is inactive.
3. Coordinate with emergency service providers to not disrupt response abilities.
4. Promote the routing of neighborhood through traffic to appropriate arterial classified streets.
5. Consider the impact on adjoining streets and neighborhoods when implementing a neighborhood traffic calming project.
6. Ensure program information is readily available and easily accessible to the NACCC across Clark County.

5. Process Framework

Traffic conditions on residential and collector streets can affect neighborhood livability. Clark County's NTMP addresses neighborhood traffic safety concerns while partnering with citizens and/or community groups to become actively involved in the improvement process. The implementation of Clark County's NTMP will be on a street-by-street basis with consideration of the impact to the affected neighborhood. This approach is necessary to comprehensively meet the goal and practices of the program. The NTMP process framework identifies the steps by which staff and community members interact and participate in the NTMP. The process framework consists of four key elements that focus on specific tasks and conclude with the implementation of each traffic management strategy.

Project Eligibility Flowchart



*County arterials and collectors cannot have traffic calming devices per county code. Minor projects could include low cost operational enhancements such as improved crosswalks, connected sidewalks, signing, or pavement markings.

Figure 2. *Neighborhood Traffic Requests*

Clark County Neighborhood Traffic Management Program—Level 2 Concept

Step 1. Resident Request

During this step, residents or NACCC will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route. Criteria will be developed based on eligible streets (roadway classification), pedestrian/bicycle access, reported crashes, vehicular speed and volumes, emergency response impacts, parking, and maintenance needs.

As part of the resident request stage, staff will once a year provide the NACCC an overview of the Neighborhood Traffic Management Program, its website, and the application process. Materials will also be available via NACCC newsletter and at Clark County's Public Service Center at 1300 Franklin Street, Vancouver, Washington, 98660.

1. The process is initiated on January 15 when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online, by calling 564.397.2446 or in person at 1300 Franklin Street, Vancouver.
2. Neighborhood traffic concern request can be submitted between January 15th and March 1st each year. Requests submitted later than March 1st will be included in the next year's evaluation process.
3. Next, county staff will respond to the requester within five working days to assure them that their request has been received and will be investigated. The request is reviewed by County staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need, to determine if it should be added to the NTMP process and considered for implementation.
    a. Staff will collect data such as: average daily traffic (ADT) counts and vehicle speeds at one or more locations in the area of the request during typical weekday conditions, or other days if requested in concern. Data collection may include adjacent or nearby streets where the potential for a shift in traffic or speeds exists. Additionally, five-year reported crash history will be compiled.
    b. Using the geocoded request information, the request will be added to the existing county geographical information system (GIS) database, including additional attributes included in the expanded NTMP Request Form.
4. Next, using the **Project Eligibility Worksheet**, staff will make an eligibility determination of problems/issues identified as part of the NTMP process.
    a. Arterial Atlas classifications
    b. Number of travel lanes (roadway width)
    c. Recorded speed, including 85th percentile speed
    d. Five-year reported crash history[2]
    e. ADT
    f. Surrounding zoning
    g. Proximity to bike facilities, pedestrian destinations, schools, bus stops, and parks
5. Using the results of the initial desktop analysis and the **Project Eligibility Worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
6. Once this initial review is completed, the resident/NACCC will be contacted by March 1st and informed of the findings and an explanation of the next steps. If requested, County staff will attend a NACCC meeting to review the request.
7. During this meeting staff could discuss the issue described in the NTMP Request Form, the findings of the initial data collection and evaluation, and the results of the **Project Eligibility Worksheet**.
    a. Residents will have the opportunity to express their perspectives and ask questions regarding the identified problem(s).

[2]A reported crash is one that has a police or citizen report that has been submitted and logged into the Washington State Patrol crash records database.

Clark County may take immediate steps to remedy certain traffic concerns through low-cost enhancements. For instance, Clark County staff may elect to install non-physical traffic management tools/strategies that utilize signs and roadway striping, conduct landscaping maintenance (e.g., trees blocking a stop sign), implement targeted speed enforcement by Clark County Sheriff, provide yard signs to the NACCC that made the request, or provide other engineering related improvements. At Clark County's discretion, these tools can be discussed at the NACCC meeting and implemented immediately, either in place of or in addition to additional evaluation and implementation of other traffic management tools at the location of the request.

Step 2. Evaluation

8. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/NACCC, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
9. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
    a. During this feedback period staff will address concerns and develop viable alternatives to strike a balance between the request, and the needs of other County's departments, and performance metrics of the emergency service providers. The following agencies and departments will be included in the review of a proposed NTMP strategies and their potential impacts and physical changes to the study area:
        i. Clark County Sheriff Department
        ii. Clark County Fire District
        iii. C-Tran
        iv. School districts in Clark County
        v. Clark County Transportation Planning
        vi. Clark County Traffic Engineers and Operations
        vii. Clark County Community Development
10. After gathering input from key agencies and departments, County staff will score eligible projects and complete the NTMP Prioritization Worksheet. Projects will be scored within each category based on the applicable criteria.
11. Points will be awarded based on characteristics of each street as outlined in the NTMP Prioritization Worksheet, which assigns points based on the following factors:
    a. Traffic Speeds: The 85th percentile of all vehicles in both directions anywhere between a one- and three-day minimum period.
    b. ADT Volumes: The average number of vehicles per day in both directions anywhere between a one- and three-day minimum period.
    c. Reported Crash History: The most recent five-year crash data from the County Database. The projects will be ranked based on severity and type of reported crashes.
    d. Pedestrian Facilities: The typical presence of sidewalks or separated shoulder or walkways.
    e. Bike Infrastructure: The presence of bike lanes or designated bike routes.
    f. Park, School (K-12), or Transit Stop: The presence or proximity of these features or presence of a school walking route on the study street.
    g. Pedestrian Destinations: The presence or proximity of pedestrian origins and destinations such as high-density housing, libraries, or community centers.
    h. Parked Vehicles: The number of vehicles parked on the street as a ratio of available parking spaces.
    i. Equity: Percent population of low to moderate income residence.

The top candidates in the pool are further evaluated in the field.

Step 3. Engagement

12. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward on this year's program.
13. Next county staff will begin developing project concepts involving the "four Es:"
    a. Equity—The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    b. Education—The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action.
    c. Enforcement—County staff will collaborate with the Clark County Sheriff department to enforce speed limits.
    d. Engineering—The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
14. Projects then will be prioritized once annually based on the scoring. Results and project ranking will be **posted on the** NTMP website on May 1st of each year and shared with the requester via email.

Step 4. Implementation

15. After sharing the results with the requester County staff will present the prioritized list of projects to County Council by June 1st of each year.
16. County Council will consider approving the prioritized list based upon available funding and direct the County engineer to design, engineer, and install the traffic management strategies based upon sound engineering practice and generally accepted standards.
    a. Depending on funding constraints to process numerous traffic calming requests Clark County may not be able to implement all of the traffic calming projects in a single fiscal year.
    b. Should the County not be able to implement all of the traffic calming projects in a single fiscal year the project will automatically go to the top of the priority list for the following year.
17. After approval, implementation of the project will be scheduled and added to the Transportation Improvement Program (TIP).
18. Staff will prepare annual report that will describe type of NTMP issues or concerns submitted by residents, percentage of submissions that meet the parameters of the NTMP program, and percentage of projects funded on a yearly basis.

NTMP Level 2 Concept Cost Estimation

FTEs	2.00
NTMP Website	YES
Small Improvement Projects: signing, striping pavement marking and limited enforcement	YES
Medium Improvement Projects: speed bumps, raised crosswalks, traffic circles	YES
Large Improvement Projects: RRFB, roundabouts, ped. refuge island, chokers, lateral shifts	NO
FTE Costs	$250,000
Project Budget	$250,000

Table 2. *NTMP Level 2 Concept Cost Estimation*

NTMP Website Mockup

PUBLIC WORKS

Change language

Search

How do I... | Services | Departments | Elected Officials | Maps & Records

- Public Works
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- Contractors and consultants +
- Equal opportunity - Title VI
- Chelatchie Prairie Railroad +
- Flooding +
- Legacy lands and natural resources +
- Parks and trails +
- Property and survey +
- Roads and bridges +
- SEPA
- Stormwater +
- Traffic +
- Transportation +
- Vegetation and weed management +
- Volunteer +
- Wastewater +
- Contact
- Frequently asked questions
- News
- Public Works Index

NTMP Process Framework

Jump to
Toolkit | Forms | Resident Request Form

The **The Neighborhood Traffic Management Program (NTMP)** process framework identifies the steps by which staff and community members interact and participate in the NTMP. The process framework consists of four key elements that focus on specific tasks and conclude with the implementation of each traffic management strategy.

Step 1. Resident Request

During this step, residents or neighborhood associations will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route.

As part of the resident request stage, once a year staff will provide the Neighborhood Association Council of Clark County (NACCC) an overview of the NTMP, its website, and the application process.

1. The process is initiated on January 15 when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online or by calling (564) 397-2446.
2. Next the request is reviewed by county staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need, to determine if it should be added to the NTMP process.
3. Using the results of the initial desktop analysis and the **project eligibility worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
4. Once this initial review is completed, the requester will be contacted via email by March 1st and informed of the findings and an explanation of the next steps.

Resident Request | Evaluation | Engagement | Implementation

Step 2. Evaluation

5. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/ neighborhood association, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
6. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
7. After gathering input from key agencies and departments, County staff will score eligible projects and complete the **NTMP Prioritization Worksheet**. Projects will be scored within each category based on the applicable criteria.
8. Points will be awarded based on characteristics of each street as outlined in the **NTMP Prioritization Worksheet**, which assigns points based on the following factors:
   a. Traffic Speeds
   b. Average Daily Traffic (ADT) Volumes
   c. Reported Crash History
   d. Pedestrian Facilities
   e. Bike Infrastructure
   f. Park, School (K-12), or Transit Stop
   g. Pedestrian Destinations
   h. Parked Vehicles
   i. Equity

The top candidates in the pool are further evaluated in the field.

Resident Request | Evaluation | Engagement | Implementation

Step 3. Engagement

9. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward.
10. Once the scored NTMP project list is published, County staff will use various methods to determine general public support, such as posting a neighborhood sign with Clark County contact information or accepting comments through e-mail.
11. Once input has been gathered, county staff will rank all eligible projects, then staff will begin developing project concepts involving the "four E's."
    j. Equity – The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    k. Education – The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action
    l. Enforcement – County staff will collaborate with Sheriff department to enforce speed limits.
    m. Engineering – The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
12. Projects then will be prioritized based on the scoring. Results and project ranking will be posted on the NTMP website on May 1st of each year and shared with the requester via email.

Resident Request | Evaluation | Engagement | Implementation

Step 4. Implementation

13. After sharing the results with the requester County staff will present the prioritized list of projects to County Council, by June 1st of each year.
14. County Council will consider approving the prioritized list based upon available funding and direct the County Engineer to design, engineer and install the traffic management strategies, based upon sound engineering practice and generally accepted standards.

Resident Request | Evaluation | Engagement | Implementation

NTMP Toolkit

2023 NTMP Toolkit - Learn about NTMP options, advantages, disadvantages, and considerations for each option before you submit your request. Click the 2023 Toolkit image below to learn more.

Forms

Project Eligibility Form - Definition TBD
Prioritization Form - Definition TBD
Petition Form - Definition TBD
Resident Request Form - Definition TBD

1 2 3

Resident Request Form

Resident Information

First Name *

Last Name *

Request Date *

Phone Number *

Email Address *

Mailing Address *

Next

For problems that require immediate response, please call (564) 397-2446.

For issues that don't require immediate attention, such as a pothole or vegetation issue, filling out an online maintenance request.

For more pressing problems, please call (564) 397-2446.

County staff tends to be extremely busy during storms and may not have time to regularly check online submissions, so a phone call is the best way to report a problem that needs immediate attention.County staff typically receives these electronic maintenance requests from 6:30 a.m. to 5 p.m. Monday through Friday, excluding holidays.

For urgent issues after hours or on weekends and holidays, please call (564) 397-2446 to reach an answering service, which can dispatch a county crew if necessary.

To report off-leash or aggressive dogs in county parks, call Clark County Animal Control, (564) 397-2488, 8:30 a.m. to 4:30 p.m. Monday through Friday, excluding holidays. For animal issues outside of business hours, call 311.

NOTE: This is to report a road concern in Clark County in Washington state.

For life-threatening emergencies, always call 911 immediately.

Neighborhood Association App:
www.clark.wa.gov/county-manager/neighborhood-association-directory

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Neighborhood Traffic Management Program
Resident Request Form

To submit a neighborhood traffic concern please complete this form online or drop it off at Clark County's Public Service Center (1300 Franklin Street) or by calling (564) 397-2446.

Resident Information

1. First Name
2. Last Name
3. Request Date
4. Phone Number
5. Email Address
6. Mailing Address

Traffic Issue Location

7. Neighborhood where traffic issues are located

- ❑ Andresen/St. Johns
- ❑ East Fork Hills
- ❑ East Fork
- ❑ East Minnehaha
- ❑ Enterprise/Paradise Point
- ❑ Fairgrounds
- ❑ Greater Brush Prairie
- ❑ Heritage
- ❑ Maple Tree
- ❑ Meadow Glade
- ❑ NE Hazel Dell
- ❑ Felida
- ❑ N Salmon Creek
- ❑ Pleasant Highlands
- ❑ Proebstel
- ❑ Ridgefield Junction
- ❑ Roads End
- ❑ Sifton
- ❑ Sunnyside
- ❑ Truman
- ❑ West Hazel Dell
- ❑ Sherwood Hills
- ❑ Unknown

8. Street where traffic issues are located
9. From intersecting street
10. To intersecting street

Neighborhood Association App: www.clark.wa.gov/county-manager/neighborhood-association-directory

Traffic Issue Details

11. Check all traffic issues that apply in the identified area.

- ❑ Speeding
- ❑ Cut-Through Traffic
- ❑ Parking
- ❑ Reported Crashes
- ❑ Danger to Bikes or Pedestrians
- ❑ Noise
- ❑ High Traffic Volume
- ❑ Limited Sight Distance
- ❑ Other:

12. Describe the traffic issue in the identified area. Include the specific areas with the worst issues, specific days or times of day where the issue is the worst, type of roadway users involved, and effects of the issue.

Neighborhood Traffic Management Program
Project Eligibility Worksheet

This worksheet would be filled out by County staff during the initial review and assessment of an NTMP request to determine eligibility for further evaluation and implementation of traffic control measures based on the eligibility checklist in this worksheet. Information including traffic speeds, a five-year crash history, and road characteristics will be compiled as part of this initial review. This worksheet's findings would be presented at a meeting with the resident or neighborhood association as part of the explanation of findings and next steps.

Roadway Description	
What is the street classification?	
What is the width and/or number of lanes on the roadway?	
What bike lanes or bike route designation does the roadway have?	
What sidewalks or walkways does the roadway have?	
What bus stops are within 1/4 mile?	
Traffic Volume	
What is the average daily traffic volume?	
Surrounding Area	
What is the zoning of the surrounding properties?	
Are there any schools or parks within 1/4 mile?	
Is the project on a safe route to school?	
List all other pedestrian destinations (high density housing, recreation centers, libraries, other sites that generate high pedestrian volumes) within 1/4 mile?	
Speed	
What is the posted speed?	
What is the 85th percentile speed?	
Crash History	
How many reported crashes were recorded in the last five years?	
How many reported crashes were recorded involving pedestrians/bicycles and parked vehicles/fixed objects in the last five years?	
How many reported crashes were recorded involving injuries or fatalities in the last five years?	

Eligibility Checklist		
1. Is the roadway classified as a local roadway?	❒ Yes—*Proceed to **question 6.***	❒ No—*Proceed to **question 2.***
Arterials and Collectors		
2. Does the roadway have residential frontage?	❒ Yes—*Proceed to **question 3**.*	❒ No—*Project is not eligible.* ✗
3. Is the average daily traffic volume on the roadway between 1,000 and 2,500 vehicles?	❒ Yes—*Proceed to **question 4.***	❒ No—*Project is not eligible.* ✗
4. Is the 85th percentile speed at least 10 mph above the posted speed limit?*	❒ Yes—*Project is eligible for low cost tools.* ✓	❒ No—*Proceed to **question 5.***
5. Are there at least two reported crashes involving injuries or fatalities?*	❒ Yes—*Project is eligible for low cost tools.* ✓	❒ No—*Proceed to **question 9.***
Local Roads		
6. Is the 85th percentile speed at least 10 mph above the posted speed limit?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to **question 7.***
7. Are there any reported crashes involving injuries, fatalities, pedestrian/bicycles, or parked vehicle/fixed object in the last five years?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to **question 8.***
8. Are there at least two reported crashes per mile in the last five years?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to **question 9.***
9. Does the roadway have bike lanes or bike route designation?	❒ Yes—*Proceed to **question 14.***	❒ No—*Proceed to **question 10.***
10. Does the roadway have portions of sidewalks missing?	❒ Yes—*Proceed to **question 14.***	❒ No—*Proceed to **question 11.***
11. Does the roadway have any school or parks within 1/4 mile?	❒ Yes—*Proceed to **question 14.***	❒ No—*Proceed to **question 12.***
12. Does the roadway have at least two pedestrian destinations (schools, parks, retail, community centers, libraries, etc.) within 1/4 mile?	❒ Yes—*Proceed to **question 14.***	❒ No—*Proceed to **question 13.***
13. Is the project on a safe route to school?	❒ Yes—*Proceed to **question 14.***	❒ No—*Project is not eligible.* ✗
14. Is the 85th percentile speed at least 5 mph above the posted speed limit on non-local roadways, or 3 mph above the posted speed limit on local roadways?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to **question 15.***
15. Are there at least two reported crashes/mile in the last five years on non-local roadways, or any reported crashes in the last five years on other roadways?	❒ Yes—*Project is eligible.* ✓	❒ No—*Project is not eligible.* ✗

**Non-local roadways (arterials and collectors) are only eligible for low-cost tools*

Clark County Washington
Public Works

CLARK COUNTY

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

LEVEL 2 CONCEPT TOOLS COMPILATION

Neighborhood Traffic Management Program

Level 2 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education/ Community Involvement					●	●						$
Special Neighborhood Sign				●	●	●	●	●	●	●	●	$
Neighborhood Traffic Management Website	●					●						$$
Increased Police Enforcement	●											$$$
Signage & Striping												
Optical Speed Bars	●					●		●	●	●	●	$
Striping Narrower Lanes	●				●	●	●	●	●	●	●	$$
Minor Street Modifications												
Centerline Raised Pavement Markers	●					●	●					$
Minor Sidewalk Filling					●	●			●			$$
Electronic Signage												
Speed Radar Trailer	●				●	●	●	●	●	●	●	$
Speed Feedback Signs	●					●	●	●	●	●	●	$
Horizontal Measures												
Gateways and Entry Treatments	●							●	●	●		$$
Traffic Circles	●	●	●			●	●	●	●	●		$$*
Pedestrian Refuge Island					●	●	●	●	●	●	●	$$$

**Each*

Vertical Measures	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Speed Humps	●		●					●	●	●		$*
Raised Crosswalk	●				●		●					$$*
Parking												
Parking Restrictions				●	●		●	●	●	●	●	$
Vegetation												
Vegetation Maintenance					●	●	●	●	●		●	$

**Each*

Education & Enforcement

Neighborhood Education/Community Involvement

Description

Distribution of educational materials regarding safety concerns to local residents. Project proponents circulate petition to residents of treated street.

Advantages

- The community is involved and has a resource.

Disadvantages

- The community could be frustrated with the lack of resources from the county.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Education & Enforcement
Special Neighborhood Sign

Description
Signs alerting motorists they are entering traffic calming areas.

Advantages
- Low costs, easy implication.

Disadvantages
- Overuse can lessen effectiveness.

Scorecard

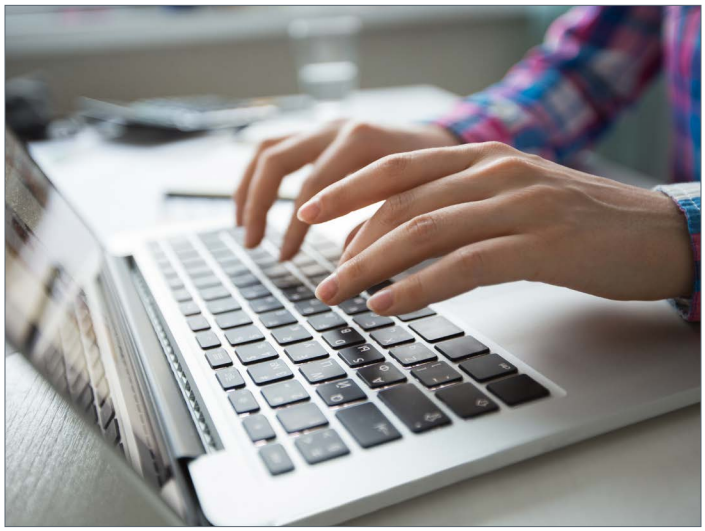
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Education & Enforcement

Neighborhood Traffic Management Website

Description

Page on jurisdiction website defining the problem locations and issues.



Advantages

- The community has a process and a resource to learn what options are available to them.

Disadvantages

- Resources to keep the web site up to date and active.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✔
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Education & Enforcement
Increased Police Enforcement

Description
Increased police deployed to collectors or arterials with residential frontage.

Advantages
- Fast results.

Disadvantages
- High costs, lack of resourses, short term.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$$

Signage & Striping
Optical Speed Bars

Description
Series of pavement markings spaced at decreasing distances, providing drivers with impression of increased speed.

Source: Journal of Transportation Technologies 2017

Advantages
- Can be implemented quickly.

Disadvantages
- Increases maintenance and resurfacing costs.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✔
Sight Distance	○
Neighborhood Park Vicinity	✔
Safe-Route-To-School Location	✔
Zoning for Medium- or High-Density Residential	✔
Vicinity to Transit Line	✔
Cost	$

Signage & Striping

Striping Narrower Lanes

Description

Centerline and edgeline lane striping (See Clark County Traffic Manual pg. 23-27 for striping guidelines).

Source: Saferoutesinfo.org

Advantages

- Can be implemented quickly.
- Can reduce speeds and improve safety.

Disadvantages

- Residents may oppose striping neighborhood streets.
- Increases maintenance and resurfacing costs.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$

Minor Street Modifications

Centerline Raised Pavement Markers

Description

Raised pavement markers, often reflective.

Source: i.pinimg.com

Advantages

- Can reduce speed.
- Provide nighttime guidance.

Disadvantages

- Do not hold up to snow plow.

Scorecard

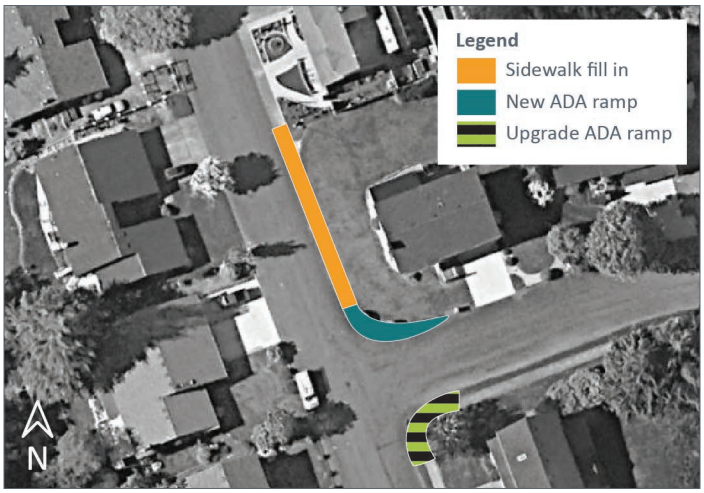
Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✔
Sight Distance	✔
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Minor Street Modifications

Minor Sidewalk Filling

Description

Small sidewalk infills.



Advantages

- Pedestrian connectivity.
- Safety; providing pedestrian route (not in the street).
- Cost-effective when right-of-way, adjacent curb, and gutter are in place.
- Increase in property values.

Disadvantages

- Too costly if right-of-way or drainage system needed.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Electronic Signage
Speed Radar Trailer

Description
Speed radars measure and alert motorists to their speed and speed limits (temporary).

Source: TrafficCalm.com

Advantages
- Can be implemented quickly.
- Can reduce speeds and improve safety.

Disadvantages
- Not provided by CCPW, they are owned by CCSO.
- Temporary solution.
- May lose effectiveness over time without enforcement.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✔
Safety	✔
Sight Distance	✔
Neighborhood Park Vicinity	✔
Safe-Route-To-School Location	✔
Zoning for Medium- or High-Density Residential	✔
Vicinity to Transit Line	✔
Cost	$

Electronic Signage
Speed Feedback Signs

Description
Speed feedback signs measure and alert motorists to their speed and speed limits (temporary).

Source:azdot.gov

Advantages
- Can reduce speeds and improve safety.

Disadvantages
- Motorist compliance is voluntary.
- Requires long sight lines to be effective.
- Not effective in long term without enforcement.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Horizontal Measures

Gateways and Entry Treatments

Description

Entrance to roadways that narrows width of road, often through use of islands, textured pavements, monuments, or signs.

Source: net1.realleads.net

Advantages

- Reduces vehicle speed.
- Enhances neighborhood identity and provides a landmark.

Disadvantages

- Can be costly to construct.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$

Horizontal Measures
Traffic Circles

Description
Raised islands placed at the center of the intersection, approaches to intersection are generally controlled by stop signs or yield signs, vehicles are directed to travel around the islands.

Source: Seattle.gov

Advantages
- Effective in moderating speeds and improving safety.
- Can add aesthetic value.
- Can calm two streets at once.

Disadvantages
- Difficult for large vehicles.
- May eliminate some on-street parking.
- Landscaping must be maintained, either by the residents or by the City.

Scorecard

Speed Reduction	✔
Traffic Volume	✔
Traffic Diversion	✔
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✔
Sight Distance	✔
Neighborhood Park Vicinity	✔
Safe-Route-To-School Location	✔
Zoning for Medium- or High-Density Residential	✔
Vicinity to Transit Line	○
Cost	$$*

**Each*

Horizontal Measures
Pedestrian Refuge Island

Description
Raised island that provides a gap for pedestrians to walk through at a crosswalk.

Source: Federal Highway Administration

Advantages
- Reduced pedestrian crashes.
- Separating traffic moving in opposite directions to reduce head-on and overtaking crashes.
- May slow vehicular traffic by narrowing the lanes.
- Ensures pedestrians need only cross one lane of traffic at a time.

Disadvantages
- Pedestrian refuge islands must be clearly visible to traffic during both day and night.
- Refuge islands should be placed where there is a demand from pedestrians to cross.
- Where cyclists are present, refuge islands should be widened to at least 7.5 feet, and preferably 10 to 12 feet.
- To avoid pedestrians looking into the wrong traffic direction, central refuge islands should only be provided to separate opposing traffic.
- Turning movements from driveways and intersections must be considered in planning the location of pedestrian refuges.
- Consideration should be given to improving accessibility for the mobility impaired. This may include design features such as paved footpaths with sufficient width to accommodate wheelchairs, dropped curbs at pedestrian crossing points, and tactile paving.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$

Vertical Measures
Speed Humps

Description
Asphalt humps extending across roadway (14 feet wide).

Source: amazonaws.com

Advantages
- Relatively inexpensive.
- Relatively easy for other road users.
- Effective in slowing speeds.

Disadvantages
- Can cause a rough ride.
- May increase noise pollution.
- Can impede emergency vehicle speeds.
- Can cause drainage issues.

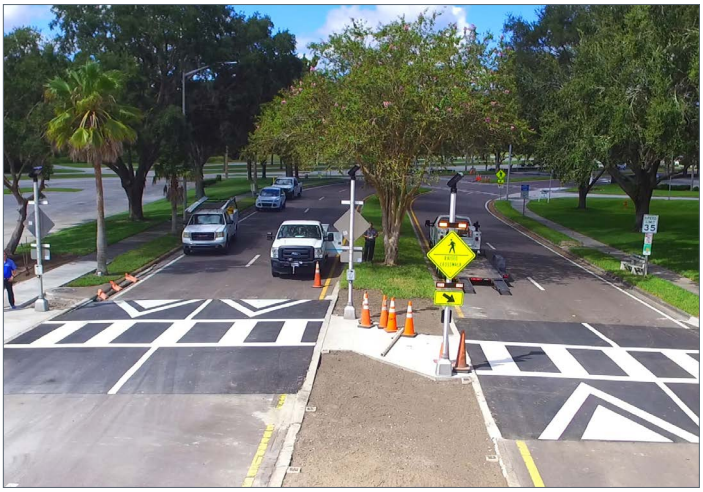
Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	✔
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✔
Safe-Route-To-School Location	✔
Zoning for Medium- or High-Density Residential	✔
Vicinity to Transit Line	○
Cost	$*

**Each*

Vertical Measures
Raised Crosswalk

Description
Crosswalks with striped markings located on speed tables.



Source: Lakelandgov.net

Advantages
- Improve pedestrian and vehicular safety.
- Can add aesthetic value.
- Effective in reducing speeds.

Disadvantages
- Textured materials, if used, can be expensive.
- Potentially impacts drainage.
- May increase noise and air pollution.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	✔
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$*

**Each*

Parking
Parking Restrictions

Description
Adding or removing on-street parking (needs County Traffic Engineer approval and could require Council approval).

Source: Creativecirclemedia.com

Advantages
- Removing parking spots near intersections can improve sight distance at intersections.
- Preserves access for mail and bus stops.

Disadvantages
- May result in higher speeds with no parking on the roadway.

Scorecard

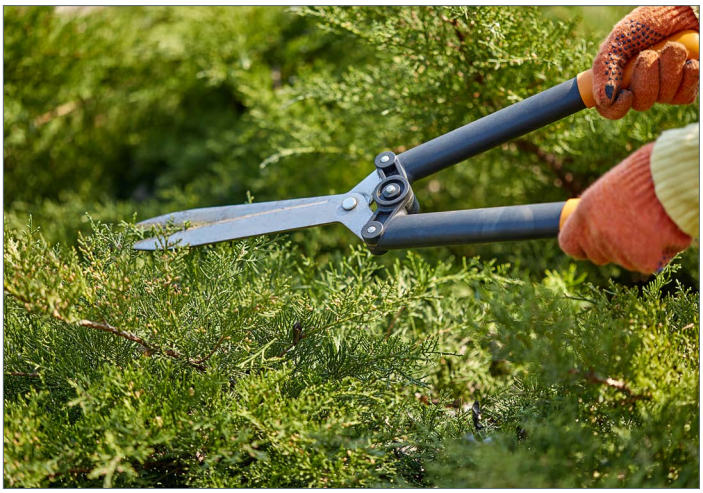
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Vegetation

Vegetation Maintenance

Description

Trimming vegetation along streets to improve visibility and sight distance.



Advantages

- Landscaping increases motorists' awareness and can help define a neighborhood's identity.
- Increases the quality of life of a community.

Disadvantages

- Must be maintained so that it does not create an unsafe visual barrier.
- Maintenance costs can be high.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$

Neighborhood Traffic Management Program
Project Prioritization Worksheet

This worksheet will be completed by Clark County staff in accordance with the County's NTMP. NTMP requests meeting the qualifying criteria will be prioritized based on the following information:

- Pedestrian Destinations – Proximity to schools, bus stops, parks, commercial centers, and other destinations
- Surrounding Zoning – Proximity to high-density housing
- Travel Speeds – How much the 85th percentile speed is over the posted speed limit
- Average Daily Traffic – Average Daily Traffic on the roadway
- Reported Crash History – The number of crashes in a five-year period
- Sidewalks and Walkways – The existing pedestrian infrastructure
- Bike Infrastructure – The existing bicycle infrastructure or designation
- On street parking – Utilization of parking spaces on roadway
- Free and Reduced Lunch – Identifies Environmental Justice (EJ) areas for equity

The prioritization system ensures an even playing field and providing transparency to the process.

NTMP Request Priortization

Request Information	
Date	
Contact	
Street/Location Name	
Neighborhood Name	
Issue or Concern Description	

Roadway Information	
Arterial Atlas Classification	
Surrounding Zoning	
Posted Speed Limit	

Point Allocation

NTMP Request	Criteria	Value	Data	Points	Max Points
Pedestrian Destinations *Schools, parks, libraries, bus stops, and stores*	The project is within 1/4 mile of a transit/ school bus stop	5 per stop			15
	The project is within 1/4–1/2 mile of a transit/school bus stop	3 per stop			9
	The project is within 1/4 mile of a public school	5 per school			15
	The project is within 1/4–1/2 mile of a public school	3 per school			9
	The street is an access route to another pedestrian destination	3 per destination			15

Point Allocation					
NTMP Request	**Criteria**	**Value**	**Data**	**Points**	**Max Points**
Surrounding Zoning *Zoning adjacent to roadway of concern*	Percentage of high-density residential surrounding zoning	% zoning/20			5
	Percentage of medium- or low-density residential surrounding zoning	% zoning/30			3
Travel Speeds	85th percentile speed > 10 mph over the speed limit	3 per mph over			15
	85th percentile speed 5–10 mph over the speed limit	2 per mph over			10
Average Daily Traffic	For arterials and collectors	ADT/1,000			5
	For local roads	ADT/200			10
Reported Crash History	Crashes involving injury to a pedestrian or bicyclist in a five-year period	10 per crash			20
	Other crashes involving injuries or fatalities in a five-year period	10 per crash			20
	Other crashes in a five-year period	5 per crash			20
Sidewalks and Walkways	Percentage of roadway without sidewalks or walkways, or gaps in existing sections of sidewalk	% without sidewalks/30			10
Bicycle Infrastructure	Does the roadway have bike lanes?	2			2
	Is the roadway designated as a shared use roadway bike route without bike lanes?	5			5
Parked Vehicles	Percentage of available street parking utilized	% parking utilized/30			10
Equity	Percentage of students on Free or Reduced Lunch at surrounding schools	% students/30			5
				TOTAL	**200**

Appendix A

Appendix A NTMP Level 1 Concept

- NTMP Level 1 Concept Process
- NTMP Website Mockup
- NTMP Request Form
- Project Eligibility Worksheet
- Level 1 Concept Tools Compilation
- NTMP Prioritization Worksheet

Clark County Neighborhood Traffic Management Program—Level 1 Concept

6. Clark County Neighborhood Traffic Management Program—Level 1 Concept

Step 1. Resident Request

During this step, residents or the NACCC will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route. Criteria will be developed based on eligible streets (roadway classification), pedestrian/bicycle access, reported crashes, vehicular speed and volumes, emergency response impacts, parking, and maintenance needs.

As part of the resident request stage, once a year staff will provide the NACCC an overview of the NTMP, its website, and the application process. Materials will also be available via NACCC newsletters and at Clark County's Public Service Center in Vancouver.

1. The process is initiated on January 15th when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online or by calling 564.397.2446 or in person at 1300 Franklin Street.
2. Neighborhood traffic concern requests can be submitted between January 15th and March 1st each year. Requests submitted later than March 1st will be included in the next year's evaluation process.
3. Next, County staff will respond to the requester within five working days to assure them that their request has been received and will be investigated. The request is reviewed by County staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need, to determine if it should be added to the NTMP process and considered for implementation.
    a. Staff will collect data such as ADT counts and vehicle speeds at one or more locations in the area of the request during typical weekday conditions, or other days if requested in concern. Data collection may include adjacent or nearby streets where the potential for a shift in traffic or speeds exists. Additionally, five-year reported crash history will be compiled.
    b. Using the geocoded request information, the request will be added to the existing county geographical information system (GIS) database, including additional attributes included in the expanded **NTMP Request Form.**
4. Next, using the **Project Eligibility Worksheet**, staff will make an eligibility determination of problems/issues identified as part of the NTMP process.
    a. Arterial Atlas classifications
    b. Number of travel lanes (roadway width)
    c. Recorded speed, including 85th percentile speed
    d. Five-year reported crash history[1]
    e. ADT
    f. Surrounding zoning
    g. Proximity to bike facilities, pedestrian destinations, schools, bus stops, and parks
5. Using the results of the initial desktop analysis and the **Project Eligibility Worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
6. Once this initial review is completed, the requester will be contacted via email by March 1 and informed of the findings and an explanation of the next steps.
    a. During this email staff will discuss the issue described in the **NTMP Request Form**, the findings of the initial data collection and evaluation, and the results of the **Project Eligibility Worksheet**.

[1]A reported crash is one that has a police or citizen report that has been submitted and logged into the Washington State Patrol crash records database.

Clark County may take immediate steps to remedy certain traffic concerns through low-cost enhancements. For instance, Clark County staff may elect to install non-physical traffic management tools/strategies that utilize signs and roadway striping, conduct landscaping maintenance (e.g., trees blocking a stop sign), implement targeted speed enforcement by Clark County Sheriff, provide yard signs to the NACCC that made the request, or provide other engineering related improvements. At Clark County's discretion, these tools can be discussed at the NACCC meeting and implemented immediately, either in place of or in addition to additional evaluation and implementation of other traffic management tools at the location of the request.

Step 2. Evaluation

7. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/NACCC, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
8. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
    a. During this feedback period staff will address concerns and develop viable alternatives to strike a balance between the request, the needs of other County's departments, and performance metrics of the emergency service providers. The following agencies and departments will be included in the review of a proposed NTMP strategies and their potential impacts and physical changes to the study area:
        i. Clark County Sheriff Department
        ii. Clark County Transportation Planning
        iii. Clark County Traffic Engineers and Operations
        iv. Clark County Community Development
9. After gathering input from key agencies and departments, County staff will score eligible projects and complete the NTMP Prioritization Worksheet. Projects will be scored within each category based on the applicable criteria.
10. Points will be awarded based on characteristics of each street as outlined in the **NTMP Prioritization Worksheet**, which assigns points based on the following factors:
    a. Traffic Speeds: The 85th percentile of all vehicles in both directions over a three-day minimum period.
    b. ADT Volumes: The average number of vehicles per day in both directions, between a one- and three-day minimum period.
    c. Reported Crash History: The most recent five-year crash data from the County Database. The projects will be ranked based on severity and type of reported crashes.
    d. Pedestrian Facilities: The typical presence of sidewalks or separated shoulder or walkways.
    e. Bike Infrastructure: The presence of bike lanes or designated bike routes.
    f. Park, School (K-12), or Transit Stop: The presence or proximity of these features or presence of a school walking route on the study street.
    g. Pedestrian Destinations: The presence or proximity of pedestrian origins and destinations such as high-density housing, libraries, or community centers.
    h. Parked Vehicles: The number of vehicles parked on the street as a ratio of available parking spaces.
    i. Equity: Percent population of low to moderate income residence.

The top candidates in the pool are further evaluated in the field.

Step 3. Engagement

11. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward on this year's program.
12. Then, County staff will begin developing project concepts involving the "four Es:"
    a. Equity—The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    b. Education—The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action.
    c. Enforcement—County staff will collaborate with the Clark County Sheriff department to enforce speed limits.
    d. Engineering—The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
13. Projects then will be prioritized once annually based on the scoring. Results and project ranking will be posted on the NTMP website on May 1st of each year and shared with the requester via email.

Step 4. Implementation

14. After sharing the results with the requester County staff will present the prioritized list of projects to County Council by June 1st of each year.
15. County Council will consider approving the prioritized list based upon available funding and direct the County engineer to design, engineer, and install the traffic management strategies based upon sound engineering practice and generally accepted standards.
    a. Depending on funding constraints to process numerous traffic calming requests Clark County may not be able to implement all of the traffic calming projects in a single fiscal year.
    b. Should the County not be able to implement all of the traffic calming projects in a single fiscal year the project will automatically go to the top of the priority list for the following year.
16. After approval, implementation of the project will be scheduled and added to the TIP.
17. Staff will prepare annual report that will describe type of NTMP issues or concerns submitted by residents, percentage of submissions that meet the parameters of the NTMP program, and percentage of projects funded on a yearly basis.

NTMP Level 1 Concept Cost Estimation

FTEs	1.35
NTMP Website	YES
Small Improvement Projects: signing, striping pavement marking, and limited enforcement	YES
Medium Improvement Projects: speed bumps, raised crosswalks, traffic circles	NO
Large Improvement Projects: RRFB, roundabouts, ped. refuge island, chokers, and lateral shifts	NO
FTE Costs	$168,750
Project Budget	$40,000

Table 1. *NTMP Level 1 Concept Cost Estimation*

Neighborhood Traffic Management Program Website Mockup

7. NTMP Website Mockup

Public Works
About Public Works +
Contractors and consultants +
Equal opportunity - Title VI
Chelatchie Prairie Railroad +
Flooding +
Legacy lands and natural resources +
Parks and trails +
Property and survey +
Roads and bridges +
SEPA
Stormwater +
Traffic +
Transportation +
Vegetation and weed management +
Volunteer +
Wastewater +
Contact
Frequently asked questions
News
Public Works Index

NTMP Process Framework

The **The Neighborhood Traffic Management Program (NTMP)** process framework identifies the steps by which staff and community members interact and participate in the NTMP. The process framework consists of four key elements that focus on specific tasks and conclude with the implementation of each traffic management strategy.

Jump to

Toolkit

Forms

Resident Request Form

Step 1. Resident Request

During this step, residents or neighborhood associations will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route.

As part of the resident request stage, once a year staff will provide the Neighborhood Association Council of Clark County (NACCC) an overview of the NTMP, its website, and the application process.

1. The process is initiated on January 15 when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online or by calling (564) 397-2446.
2. Next the request is reviewed by county staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need, to determine if it should be added to the NTMP process.
3. Using the results of the initial desktop analysis and the **project eligibility worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
4. Once this initial review is completed, the requester will be contacted via email by March 1st and informed of the findings and an explanation of the next steps.

Step 2. Evaluation

5. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/ neighborhood association, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
6. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
7. After gathering input from key agencies and departments, County staff will score eligible projects and complete the **NTMP Prioritization Worksheet**. Projects will be scored within each category based on the applicable criteria.
8. Points will be awarded based on characteristics of each street as outlined in the **NTMP Prioritization Worksheet**, which assigns points based on the following factors:
   a. Traffic Speeds
   b. Average Daily Traffic (ADT) Volumes
   c. Reported Crash History
   d. Pedestrian Facilities
   e. Bike Infrastructure
   f. Park, School (K-12), or Transit Stop
   g. Pedestrian Destinations
   h. Parked Vehicles
   i. Equity

The top candidates in the pool are further evaluated in the field.

Step 3. Engagement

9. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward.
10. Once the scored NTMP project list is published, County staff will use various methods to determine general public support, such as posting a neighborhood sign with Clark County contact information or accepting comments through e-mail.
11. Once input has been gathered, county staff will rank all eligible projects, then staff will begin developing project concepts involving the "four E's."
    j. Equity – The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    k. Education – The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action
    l. Enforcement – County staff will collaborate with Sheriff department to enforce speed limits.
    m. Engineering – The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
12. Projects then will be prioritized based on the scoring. Results and project ranking will be posted on the NTMP website on May 1st of each year and shared with the requester via email.

Step 4. Implementation

13. After sharing the results with the requester County staff will present the prioritized list of projects to County Council, by June 1st of each year.
14. County Council will consider approving the prioritized list based upon available funding and direct the County Engineer to design, engineer and install the traffic management strategies, based upon sound engineering practice and generally accepted standards.

NTMP Toolkit

2023 NTMP Toolkit - Learn about NTMP options, advantages, disadvantages, and considerations for each option before you submit your request. Click the 2023 Toolkit image below to learn more.

Forms

Project Eligibility Form - Definition TBD
Prioritization Form - Definition TBD
Petition Form - Definition TBD
Resident Request Form - Definition TBD

1 2 3

Resident Request Form

Resident Information

First Name *

Last Name *

Request Date *

Phone Number *

Email Address *

Mailing Address *

Next

For problems that require immediate response, please call (564) 397-2446.

For issues that don't require immediate attention, such as a pothole or vegetation issue, filling out an online maintenance request.

For more pressing problems, please call (564) 397-2446.

County staff tends to be extremely busy during storms and may not have time to regularly check online submissions, so a phone call is the best way to report a problem that needs immediate attention.County staff typically receives these electronic maintenance requests from 6:30 a.m. to 5 p.m. Monday through Friday, excluding holidays.

For urgent issues after hours or on weekends and holidays, please call (564) 397-2446 to reach an answering service, which can dispatch a county crew if necessary.

To report off-leash or aggressive dogs in county parks, call Clark County Animal Control, (564) 397-2488, 8:30 a.m. to 4:30 p.m. Monday through Friday, excluding holidays. For animal issues outside of business hours, call 311.

NOTE: This is to report a road concern in Clark County in Washington state.

For life-threatening emergencies, always call 911 immediately.

Neighborhood Association App:
www.clark.wa.gov/county-manager/neighborhood-association-directory

Neighborhood Traffic Management Program
Resident Request Form

Neighborhood Traffic Management Program
Resident Request Form

To submit a neighborhood traffic concern please complete this form online or drop it off at Clark County's Public Service Center (1300 Franklin Street) or by calling (564) 397-2446.

Resident Information

1. First Name
2. Last Name
3. Request Date
4. Phone Number
5. Email Address
6. Mailing Address

Traffic Issue Location

7. Neighborhood where traffic issues are located

- ❑ Andresen/St. Johns
- ❑ East Fork Hills
- ❑ East Fork
- ❑ East Minnehaha
- ❑ Enterprise/Paradise Point
- ❑ Fairgrounds
- ❑ Greater Brush Prairie
- ❑ Heritage
- ❑ Maple Tree
- ❑ Meadow Glade
- ❑ NE Hazel Dell
- ❑ Felida
- ❑ N Salmon Creek
- ❑ Pleasant Highlands
- ❑ Proebstel
- ❑ Ridgefield Junction
- ❑ Roads End
- ❑ Sifton
- ❑ Sunnyside
- ❑ Truman
- ❑ West Hazel Dell
- ❑ Sherwood Hills
- ❑ Unknown

8. Street where traffic issues are located
9. From intersecting street
10. To intersecting street

Neighborhood Association App: www.clark.wa.gov/county-manager/neighborhood-association-directory

Traffic Issue Details

11. Check all traffic issues that apply in the identified area.

- ❑ Speeding
- ❑ Cut-Through Traffic
- ❑ Parking
- ❑ Reported Crashes
- ❑ Danger to Bikes or Pedestrians
- ❑ Noise
- ❑ High Traffic Volume
- ❑ Limited Sight Distance
- ❑ Other:

12. Describe the traffic issue in the identified area. Include the specific areas with the worst issues, specific days or times of day where the issue is the worst, type of roadway users involved, and effects of the issue.

Neighborhood Traffic Management Program
Project Eligibility Worksheet

Neighborhood Traffic Management Program
Project Eligibility Worksheet

This worksheet would be filled out by County staff during the initial review and assessment of an NTMP request to determine eligibility for further evaluation and implementation of traffic control measures based on the eligibility checklist in this worksheet. Information including traffic speeds, a five-year crash history, and road characteristics will be compiled as part of this initial review. This worksheet's findings would be presented at a meeting with the resident or NACCC as part of the explanation of findings and next steps.

Roadway Description	
What is the street classification?	
What is the width and/or number of lanes on the roadway?	
What bike lanes or bike route designation does the roadway have?	
What sidewalks or walkways does the roadway have?	
What bus stops are within 1/4 mile?	
Traffic Volume	
What is the average daily traffic volume?	
Surrounding Area	
What is the zoning of the surrounding properties?	
Are there any schools or parks within 1/4 mile?	
Is the project on a safe route to school?	
List all other pedestrian destinations (high density housing, recreation centers, libraries, other sites that generate high pedestrian volumes) within 1/4 mile?	
Speed	
What is the posted speed?	
What is the 85th percentile speed?	
Crash History	
How many reported crashes were recorded in the last five years?	
How many reported crashes were recorded involving pedestrians/bicycles and parked vehicles/fixed objects in the last five years?	
How many reported crashes were recorded involving injuries or fatalities in the last five years?	

Eligibility Checklist		
1. Is the roadway classified as a local roadway?	❒ Yes—*Proceed to* ***question 6.***	❒ No—*Proceed to* ***question 2.***
Arterials and Collectors		
2. Does the roadway have residential frontage?	❒ Yes—*Proceed to* ***question 3***.	❒ No—*Project is not eligible.* ✘
3. Is the average daily traffic volume on the roadway between 1,000 and 2,500 vehicles?	❒ Yes—*Proceed to* ***question 4.***	❒ No—*Project is not eligible.* ✘
4. Is the 85th percentile speed at least 10 mph above the posted speed limit?*	❒ Yes—*Project is eligible for low cost tools.* ✔	❒ No—*Proceed to* ***question 5.***
5. Are there at least two reported crashes involving injuries or fatalities?*	❒ Yes—*Project is eligible for low cost tools.* ✔	❒ No—*Proceed to* ***question 9.***
Local Roads		
6. Is the 85th percentile speed at least 10 mph above the posted speed limit?	❒ Yes—*Project is eligible.* ✔	❒ No—*Proceed to* ***question 7.***
7. Are there any reported crashes involving injuries, fatalities, pedestrian/bicycles, or parked vehicle/fixed object in the last five years?	❒ Yes—*Project is eligible.* ✔	❒ No—*Proceed to* ***question 8.***
8. Are there at least two reported crashes per mile in the last five years?	❒ Yes—*Project is eligible.* ✔	❒ No—*Proceed to* ***question 9.***
9. Does the roadway have bike lanes or bike route designation?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 10.***
10. Does the roadway have more portions of sidewalks missing?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 11.***
11. Does the roadway have any school or parks within 1/4 mile?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 12.***
12. Does the roadway have at least two pedestrian destinations (schools, parks, retail, community centers, libraries, etc.) within 1/4 mile?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 13.***
13. Is the project on a safe route to school?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Project is not eligible.* ✘
14. Is the 85th percentile speed at least 5 mph above the posted speed limit on non-local roadways, or 3 mph above the posted speed limit on local roadways?	❒ Yes—*Project is eligible.* ✔	❒ No—*Proceed to* ***question 15.***
15. Are there at least two reported crashes/mile in the last five years on non-local roadways, or any reported crashes in the last five years on other roadways?	❒ Yes—*Project is eligible.* ✔	❒ No—*Project is not eligible.* ✘

**Non-local roadways (arterials and collectors) are only eligible for low-cost tools*

Neighborhood Traffic Management Program 2023
Level 1 Concept Tools Compilation

Clark County Washington
Public Works

CLARK COUNTY

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

LEVEL 1 CONCEPT TOOLS COMPILATION

Neighborhood Traffic Management Program

Level 1 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/Ped. facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education / Community Involvement					■	■						$
Special Neighborhood Sign				■	■	■	■	■	■	■	■	$
Neighborhood Traffic Management Website	■					■						$$
Increased Police Enforcement	■											$$$
Minor Street Modifications												
Centerline Raised Pavement Markers	■					■	■					$
Minor Sidewalk Filling					■	■			■			$$
Electronic Signage												
Speed Radar Trailer	■				■	■	■	■	■	■	■	$
Speed Feedback Signs	■					■	■	■	■	■	■	$
Parking												
Parking Restrictions				■	■		■	■	■	■	■	$
Vegetation												
Vegetation Maintenance					■	■	■	■	■		■	$

Education & Enforcement

Neighborhood Education/Community Involvement

Description

Distribution of educational materials regarding safety concerns to local residents. Project proponents circulate petition to residents of treated street.

Advantages

- The community is involved and has a resource.

Disadvantages

- The community could be frustrated with the lack of resources from the County.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-to-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Education & Enforcement
Special Neighborhood Sign

Description
Signs alerting motorists they are entering traffic calming areas.

Advantages
- Low costs, easy implication.

Disadvantages
- Overuse can lessen effectiveness.

Scorecard

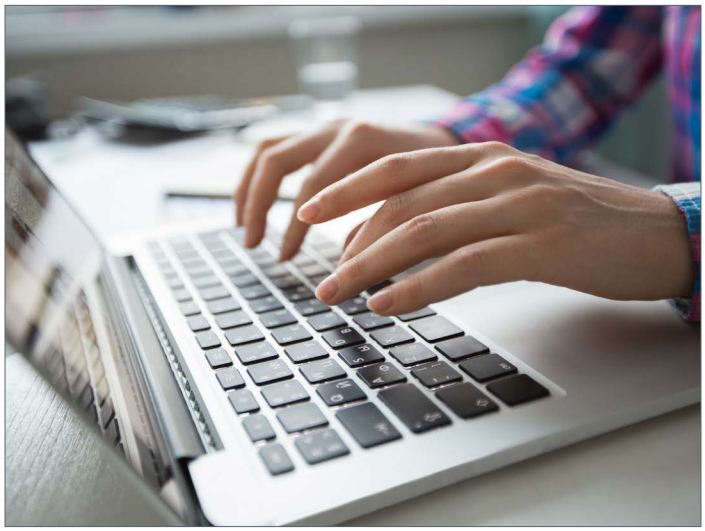
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-to-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Education & Enforcement

Neighborhood Traffic Management Website

Description

Page on jurisdiction website defining the problem locations and issues.



Advantages

- The community has a process and a resource to learn what options are available to them.

Disadvantages

- Resources to keep the website up to date and active.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-to-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Education & Enforcement
Increased Police Enforcement

Description
Increased police deployed to collectors or arterials with residential frontage.

Advantages
- Fast results.

Disadvantages
- High costs, lack of resourses, short term.

Scorecard

Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-to-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$$

Minor Street Modifications

Centerline Raised Pavement Markers

Description

Raised pavement markers, often reflective.

Source: i.pinimg.com

Advantages

- Can reduce speed.
- Provide nighttime guidance.

Disadvantages

- Does not hold up to snow plow.

Scorecard

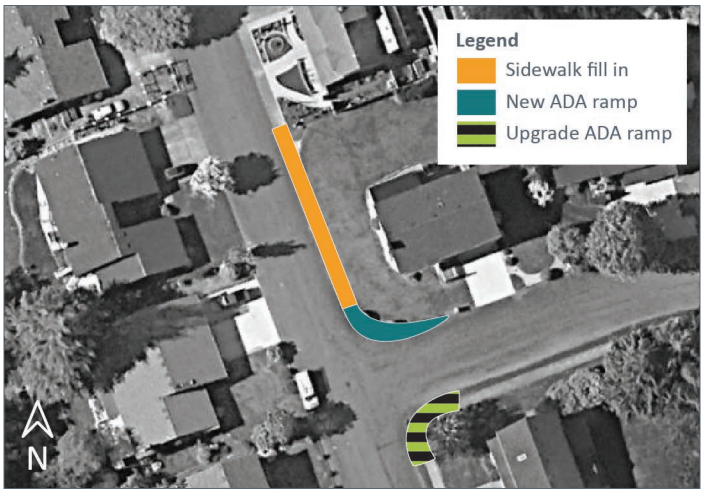
Speed Reduction	✔
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✔
Sight Distance	✔
Neighborhood Park Vicinity	○
Safe-Route-to-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Minor Street Modifications

Minor Sidewalk Filling

Description

Small sidewalk infills.



Advantages

- Pedestrian connectivity.
- Safety; providing pedestrian route (not in the street).
- Cost-effective when right-of-way, adjacent curb, and gutter are in place.
- Increase in property values.

Disadvantages

- Too costly if right-of-way or drainage system needed.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Electronic Signage
Speed Radar Trailer

Description
Speed radars measure and alert motorists to their speed and speed limits (temporary).

Source: TrafficCalm.com

Advantages
- Can be implemented quickly.
- Can reduce speeds and improve safety.

Disadvantages
- Not provided by Clark County Public works, they are owned by Clark County Sherriff's Office.
- Temporary solution.
- May lose effectiveness over time without enforcement.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-to-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Electronic Signage
Speed Feedback Signs

Description
Speed feedback signs measure and alert motorists to their speed and speed limits (temporary).

Source:azdot.gov

Advantages
- Can reduce speeds and improve safety.

Disadvantages
- Motorist compliance is voluntary.
- Requires long sight lines to be effective.
- Not effective in long term without enforcement.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-to-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Parking
Parking Restrictions

Description
Adding or removing on-street parking (needs County Traffic Engineer approval and could require Council approval).

Source: Creativecirclemedia.com

Advantages
- Removing parking spots near intersections can improve sight distance at intersections.
- Preserves access for mail and bus stops.

Disadvantages
- May result in higher speeds with no parking on the roadway.

Scorecard

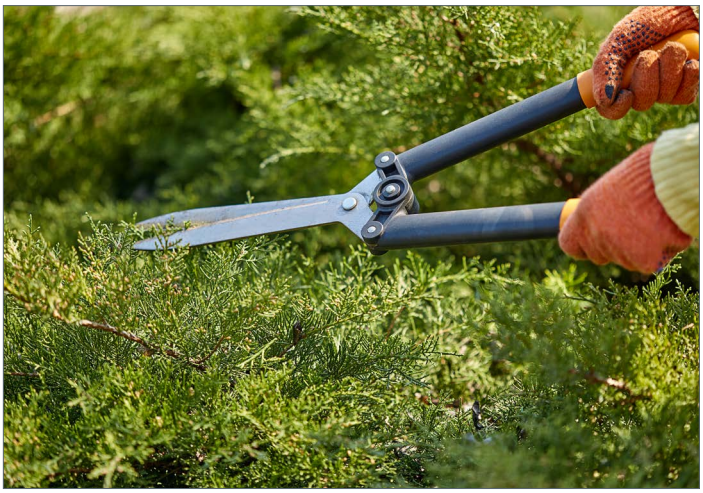
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-to-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Vegetation

Vegetation Maintenance

Description

Trimming vegetation along streets to improve visibility and sight distance.



Advantages

- Landscaping increases motorists' awareness and can help define a neighborhood's identity.
- Increases the quality of life of a community.

Disadvantages

- Must be maintained so that it does not create an unsafe visual barrier.
- Maintenance costs can be high.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-to-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$

Neighborhood Traffic Management Program
Project Prioritization Worksheet

Neighborhood Traffic Management Program
Project Prioritization Worksheet

This worksheet will be completed by Clark County staff in accordance with the County's NTMP. NTMP requests meeting the qualifying criteria will be prioritized based on the following information:

- Pedestrian Destinations – Proximity to schools, bus stops, parks, commercial centers, and other destinations
- Surrounding Zoning – Proximity to high-density housing
- Travel Speeds – How much the 85th percentile speed is over the posted speed limit
- Average Daily Traffic – Average Daily Traffic on the roadway
- Reported Crash History – The number of crashes in a five-year period
- Sidewalks and Walkways – The existing pedestrian infrastructure
- Bike Infrastructure – The existing bicycle infrastructure or designation
- On street parking – Utilization of parking spaces on roadway
- Free and Reduced Lunch – Identifies Environmental Justice (EJ) areas for equity

The prioritization system ensures an even playing field and providing transparency to the process.

NTMP Request Priortization

Request Information	
Date	
Contact	
Street/Location Name	
Neighborhood Name	
Issue or Concern Description	

Roadway Information	
Arterial Atlas Classification	
Surrounding Zoning	
Posted Speed Limit	

Point Allocation

NTMP Request	Criteria	Value	Data	Points	Max Points
Pedestrian Destinations *Schools, parks, libraries, bus stops, and stores*	The project is within 1/4 mile of a transit/ school bus stop	5 per stop			15
	The project is within 1/4–1/2 mile of a transit/school bus stop	3 per stop			9
	The project is within 1/4 mile of a public school	5 per school			15
	The project is within 1/4–1/2 mile of a public school	3 per school			9
	The street is an access route to another pedestrian destination	3 per destination			15

Point Allocation					
NTMP Request	**Criteria**	**Value**	**Data**	**Points**	**Max Points**
Surrounding Zoning *Zoning adjacent to roadway of concern*	Percentage of high-density residential surrounding zoning	% zoning/20			5
	Percentage of medium- or low-density residential surrounding zoning	% zoning/30			3
Travel Speeds	85th percentile speed > 10 mph over the speed limit	3 per mph over			15
	85th percentile speed 5–10 mph over the speed limit	2 per mph over			10
Average Daily Traffic	For arterials and collectors	ADT/1,000			5
	For local roads	ADT/200			10
Reported Crash History	Crashes involving injury to a pedestrian or bicyclist in a five-year period	10 per crash			20
	Other crashes involving injuries or fatalities in a five-year period	10 per crash			20
	Other crashes in a five-year period	5 per crash			20
Sidewalks and Walkways	Percentage of roadway without sidewalks or walkways, or gaps in existing sections of sidewalk	% without sidewalks/30			10
Bicycle Infrastructure	Does the roadway have bike lanes?	2			2
	Is the roadway designated as a shared use roadway bike route without bike lanes?	5			5
Parked Vehicles	Percentage of available street parking utilized	% parking utilized/30			10
Equity	Percentage of students on Free or Reduced Lunch at surrounding schools	% students/30			5
				TOTAL	**200**

Appendix B

Appendix B NTMP Level 3 Concept

- NTMP Level 3 Concept Process
- NTMP Website Mockup
- NTMP Request Form
- Project Eligibility Worksheet
- Level 3 Concept Tools Compilation
- NTMP Prioritization Worksheet
- NTMP Petition

Clark County Neighborhood Traffic Management Program—Level 3 Concept

Clark County Neighborhood Traffic Management Program—Level 3 Concept

Step 1. Resident Request

During this step, residents or NACCC will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route. Criteria will be developed based on eligible streets (roadway classification), pedestrian/bicycle access, reported crashes, vehicular speed and volumes, emergency response impacts, parking, and maintenance needs.

As part of the resident request stage, once a year staff will provide the NACCC an overview of the Neighborhood Traffic Management Program, its website, and the application process. Materials will also be available via NACCC newsletter and at Clark County's Public Service Center at 1300 Franklin Street, Vancouver, Washington, 98660.

1. The process is initiated on January 15th when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online, by calling 564.397.2446 or in person at 1300 Franklin Street, Vancouver.
2. Neighborhood traffic concern request can be submitted between January 15tg and March 1st each year. Requests submitted later than March 1st will be included in the next year's evaluation process.
3. Next, County staff will respond to the requester within five working days to assure them that their request has been received and will be investigated. The request is reviewed by County staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need to determine if it should be added to the NTMP process and considered for implementation.
    a. Staff will collect data such as: ADT counts and vehicle speeds at one or more locations in the area of the request during typical weekday conditions, or other days if requested in concern. Data collection may include adjacent or nearby streets where the potential for a shift in traffic or speeds exists. Additionally, five-year reported crash history will be compiled.
    b. Using the geocoded request information, the request will be added to the existing county GIS database, including additional attributes included in the expanded **NTMP Request Form.**
4. Next, using the **Project Eligibility Worksheet**, staff will make an eligibility determination of problems/issues identified as part of the NTMP process.
    a. Arterial Atlas classifications
    b. Number of travel lanes (roadway width)
    c. Recorded speed, including 85th percentile speed
    d. Five-year reported crash history[3]
    e. ADT
    f. Surrounding zoning
    g. Proximity to bike facilities, pedestrian destinations, schools, bus stops, and parks
5. Using the results of the initial desktop analysis and the **Project Eligibility Worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
6. Once this initial review is completed, the resident/NACCC will be contacted by March 1st and informed of the findings and an explanation of the next steps. If requested, County staff will attend a NACCC meeting to review the request.
7. During this meeting staff could discuss the issue described in the **NTMP Request Form**, the findings of the initial data collection and evaluation, and the results of the **Project Eligibility Worksheet**.
    a. Residents will have the opportunity to express their perspectives and ask questions regarding the identified problem(s).

[3]A reported crash is one that has a police or citizen report that has been submitted and logged into the Washington State Patrol crash records database.

Clark County may take immediate steps to remedy certain traffic concerns through low-cost enhancements. For instance, Clark County staff may elect to install non-physical traffic management tools/strategies that utilize signs and roadway striping, conduct landscaping maintenance (e.g., trees blocking a stop sign), implement targeted speed enforcement by Clark County Sheriff, provide yard signs to the NACCC that made the request, or provide other engineering related improvements. At Clark County's discretion, these tools can be discussed at the NACCC meeting and implemented immediately, either in place of or in addition to additional evaluation and implementation of other traffic management tools at the location of the request.

Step 2. Evaluation

8. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/NACCC, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
9. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
    a. During this feedback period staff will address concerns and develop viable alternatives to strike a balance between the request, the needs of other County's departments, and performance metrics of the emergency service providers. The following agencies and departments will be included in the review of a proposed NTMP strategies and their potential impacts and physical changes to the study area:
        i. Clark County Sheriff Department
        ii. Clark County Fire District
        iii. C-Tran
        iv. School districts in Clark County
        v. Clark County Transportation Planning
        vi. Clark County Traffic Engineers and Operations
        vii. Clark County Community Development
10. After gathering input from key agencies and departments, County staff will score eligible projects and complete the **NTMP Prioritization Worksheet.** Projects will be scored within each category based on the applicable criteria.
11. Points will be awarded based on characteristics of each street as outlined in the **NTMP Prioritization Worksheet**, which assigns points based on the following factors:

a. Traffic Speeds: The 85th percentile of all vehicles in both directions anywhere between a one- and three-day minimum period.

b. ADT Volumes: The average number of vehicles per day in both directions anywhere between a one- and three-day minimum period.

c. Reported Crash History: The most recent five-year crash data from the County Database. The projects will be ranked based on severity and type of reported crashes.

d. Pedestrian Facilities: The typical presence of sidewalks or separated shoulder or walkways.

e. Bike Infrastructure: The presence of bike lanes or designated bike routes.

f. Park, School (K-12), or Transit Stop: The presence or proximity of these features or presence of a school walking route on the study street.

g. Pedestrian Destinations: The presence or proximity of pedestrian origins and destinations such as high-density housing, libraries, or community centers.

h. Parked Vehicles: The number of vehicles parked on the street as a ratio of available parking spaces.

i. Equity: Percent population of low to moderate income residence

The top candidates in the pool are further evaluated in the field.

Step 3. Engagement

12. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward on this year's program.
13. Once the scored NTMP project list is published, the corresponding NACCC will need to circulate the **NTMP Petition Form** and gather a minimum of 50% of signatures from residents near the proposed project.
    a. The completed form will be used to determine the amount of local neighborhood support.
    b. The signatures must be from individuals 18 years and older and from separate households.
    c. The magnitude of support by the neighborhood will also be considered when projects are ranked.
14. Next county staff will begin developing project concepts involving the "four Es."
    a. Equity—The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    b. Education—The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action.
    c. Enforcement—County staff will collaborate with the Clark County Sheriff department department to enforce speed limits.
    d. Engineering—The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
15. Projects then will be prioritized once annually based on the scoring. Results and project ranking will be shared during a NACCC meeting, **posted on the NTMP website** on May 1st of each year and shared with the resident/NACCC via email.

Step 4. Implementation

16. After sharing the results with the requester County staff will present the prioritized list of projects to County Council by June 1st of each year.
17. County Council will consider approving the prioritized list based upon available funding and direct the County engineer to design, engineer and install the traffic management strategies, based upon sound engineering practice, and generally accepted standards.
    a. Depending on funding constraints to process numerous traffic calming requests Clark County may not be able to implement all of the traffic calming projects in a single fiscal year.
    b. Should the County not be able to implement all of the traffic calming projects in a single fiscal year the project will automatically go to the top of the priority list for the following year.
18. After approval, implementation of the project will be scheduled and added to the TIP.
19. Staff will prepare annual report that will describe type of NTMP issues or concerns submitted by residents, percentage of submissions that meet the parameters of the NTMP program, and percentage of projects funded on a yearly basis.

NTMP Level 3 Concept Cost Estimation

FTEs	2.25
NTMP Website	YES
Small Improvement Projects: signing, striping pavement marking, and limited enforcement	YES
Medium Improvement Projects: speed bumps, raised crosswalks, and traffic circles	YES
Large Improvement Projects: RRFB, roundabouts, ped. refuge island, chokers, and lateral shifts	YES
FTE Costs	$281,250
Project Budget	$750,000

Table 3. *NTMP Level 3 Concept Cost Estimation*

Neighborhood Traffic Management Program Website Mockup

NTMP Website Mockup

PUBLIC WORKS

Change language

Search

How do I... | Services | Departments | Elected Officials | Maps & Records

- Public Works
- About Public Works +
- Contractors and consultants +
- Equal opportunity - Title VI
- Chelatchie Prairie Railroad +
- Flooding +
- Legacy lands and natural resources +
- Parks and trails +
- Property and survey +
- Roads and bridges +
- SEPA
- Stormwater +
- Traffic +
- Transportation +
- Vegetation and weed management +
- Volunteer +
- Wastewater +
- Contact
- Frequently asked questions
- News
- Public Works Index

NTMP Process Framework

Jump to
Toolkit | Forms | Resident Request Form

The **The Neighborhood Traffic Management Program (NTMP)** process framework identifies the steps by which staff and community members interact and participate in the NTMP. The process framework consists of four key elements that focus on specific tasks and conclude with the implementation of each traffic management strategy.

Step 1. Resident Request

During this step, residents or neighborhood associations will submit a request for action addressing their concerns. County staff will work with the neighborhood in defining the problem and study area, which may be a specific intersection or a much larger area, such as a neighborhood. The size of the study depends on the extent of the traffic-related concerns and should include any street that could serve as an alternative route.

As part of the resident request stage, once a year staff will provide the Neighborhood Association Council of Clark County (NACCC) an overview of the NTMP, its website, and the application process.

1. The process is initiated on January 15 when a resident or Homeowners Association submits a neighborhood traffic concern request to Clark County staff to investigate the concern by using the **NTMP Request Form** online or by calling (564) 397-2446.
2. Next the request is reviewed by county staff, which may include a collection of traffic data and an initial desktop assessment of the identified issue or need, to determine if it should be added to the NTMP process.
3. Using the results of the initial desktop analysis and the **project eligibility worksheet**, staff will determine if the identified issue/concern can be reasonably addressed on the proposed street.
4. Once this initial review is completed, the requester will be contacted via email by March 1st and informed of the findings and an explanation of the next steps.

Resident Request | Evaluation | Engagement | Implementation

Step 2. Evaluation

5. Next, a list of potential neighborhood traffic management strategies will be compiled to address the traffic concern identified by the resident/ neighborhood association, using the **NTMP Strategies Toolkit** as guidance based on the gathered data, type of traffic problem, and road classification.
6. Once a list of potential strategies has been prepared, County staff will solicit feedback from other Clark County departments and emergency service providers that may be affected by the implementation of the potential strategy.
7. After gathering input from key agencies and departments, County staff will score eligible projects and complete the **NTMP Prioritization Worksheet**. Projects will be scored within each category based on the applicable criteria.
8. Points will be awarded based on characteristics of each street as outlined in the **NTMP Prioritization Worksheet**, which assigns points based on the following factors:
   a. Traffic Speeds
   b. Average Daily Traffic (ADT) Volumes
   c. Reported Crash History
   d. Pedestrian Facilities
   e. Bike Infrastructure
   f. Park, School (K-12), or Transit Stop
   g. Pedestrian Destinations
   h. Parked Vehicles
   i. Equity

The top candidates in the pool are further evaluated in the field.

Resident Request | Evaluation | Engagement | Implementation

Step 3. Engagement

9. Once projects have been scored, County staff will post a list of projects that meet the criteria on the **NTMP webpage** and notify those neighborhoods whose projects are moving forward.
10. Once the scored NTMP project list is published, County staff will use various methods to determine general public support, such as posting a neighborhood sign with Clark County contact information or accepting comments through e-mail.
11. Once input has been gathered, county staff will rank all eligible projects, then staff will begin developing project concepts involving the "four E's."
    j. Equity – The NTMP will include a systematic evaluation (see NTMP DEI Lens) of how different neighborhoods will be affected by the selection and implementation of a neighborhood traffic management project.
    k. Education – The **NTMP Strategies Toolkit** will include programs that remind speeders and distracted drivers of the negative effects of their action
    l. Enforcement – County staff will collaborate with Sheriff department to enforce speed limits.
    m. Engineering – The **NTMP Strategies Toolkit** will be based on the construction of a physical change to the roadway to deter speeding.
12. Projects then will be prioritized based on the scoring. Results and project ranking will be posted on the NTMP website on May 1st of each year and shared with the requester via email.

Resident Request | Evaluation | Engagement | Implementation

Step 4. Implementation

13. After sharing the results with the requester County staff will present the prioritized list of projects to County Council, by June 1st of each year.
14. County Council will consider approving the prioritized list based upon available funding and direct the County Engineer to design, engineer and install the traffic management strategies, based upon sound engineering practice and generally accepted standards.

Resident Request | Evaluation | Engagement | Implementation

NTMP Toolkit

2023 NTMP Toolkit - Learn about NTMP options, advantages, disadvantages, and considerations for each option before you submit your request. Click the 2023 Toolkit image below to learn more.

Forms

Project Eligibility Form - Definition TBD
Prioritization Form - Definition TBD
Petition Form - Definition TBD
Resident Request Form - Definition TBD

1 2 3

Resident Request Form

Resident Information

First Name *

Last Name *

Request Date *

Phone Number *

Email Address *

Mailing Address *

Next

For problems that require immediate response, please call (564) 397-2446.

For issues that don't require immediate attention, such as a pothole or vegetation issue, filling out an online maintenance request.

For more pressing problems, please call (564) 397-2446.

County staff tends to be extremely busy during storms and may not have time to regularly check online submissions, so a phone call is the best way to report a problem that needs immediate attention.County staff typically receives these electronic maintenance requests from 6:30 a.m. to 5 p.m. Monday through Friday, excluding holidays.

For urgent issues after hours or on weekends and holidays, please call (564) 397-2446 to reach an answering service, which can dispatch a county crew if necessary.

To report off-leash or aggressive dogs in county parks, call Clark County Animal Control, (564) 397-2488, 8:30 a.m. to 4:30 p.m. Monday through Friday, excluding holidays. For animal issues outside of business hours, call 311.

NOTE: This is to report a road concern in Clark County in Washington state.

For life-threatening emergencies, always call 911 immediately.

Neighborhood Association App:
www.clark.wa.gov/county-manager/neighborhood-association-directory

proud past, promising future

INFORMATION FOR
Residents
Businesses
Volunteers
Clark County Employees

DO MORE ONLINE
Subscribe to Updates
Maps Online
Property Tax Payment
Jail Inmate Lookup

PUBLIC WORKS
564.397.6118
Email Us

 Terms of Use | Privacy Policy | Health Information Privacy Information | Accessibility

Neighborhood Traffic Management Program
Resident Request Form

Neighborhood Traffic Management Program
Resident Request Form

To submit a neighborhood traffic concern please complete this form online or drop it off at Clark County's Public Service Center (1300 Franklin Street) or by calling (564) 397-2446.

Resident Information

1. First Name
2. Last Name
3. Request Date
4. Phone Number
5. Email Address
6. Mailing Address

Traffic Issue Location

7. Neighborhood where traffic issues are located

- ❑ Andresen/St. Johns
- ❑ East Fork Hills
- ❑ East Fork
- ❑ East Minnehaha
- ❑ Enterprise/Paradise Point
- ❑ Fairgrounds
- ❑ Greater Brush Prairie
- ❑ Heritage
- ❑ Maple Tree
- ❑ Meadow Glade
- ❑ NE Hazel Dell
- ❑ Felida
- ❑ N Salmon Creek
- ❑ Pleasant Highlands
- ❑ Proebstel
- ❑ Ridgefield Junction
- ❑ Roads End
- ❑ Sifton
- ❑ Sunnyside
- ❑ Truman
- ❑ West Hazel Dell
- ❑ Sherwood Hills
- ❑ Unknown

8. Street where traffic issues are located
9. From intersecting street
10. To intersecting street

Neighborhood Association App: www.clark.wa.gov/county-manager/neighborhood-association-directory

Traffic Issue Details

11. Check all traffic issues that apply in the identified area.

- ❑ Speeding
- ❑ Cut-Through Traffic
- ❑ Parking
- ❑ Reported Crashes
- ❑ Danger to Bikes or Pedestrians
- ❑ Noise
- ❑ High Traffic Volume
- ❑ Limited Sight Distance
- ❑ Other:

12. Describe the traffic issue in the identified area. Include the specific areas with the worst issues, specific days or times of day where the issue is the worst, type of roadway users involved, and effects of the issue.

Neighborhood Traffic Management Program
Project Eligibility Worksheet

Neighborhood Traffic Management Program
Project Eligibility Worksheet

This worksheet would be filled out by County staff during the initial review and assessment of an NTMP request to determine eligibility for further evaluation and implementation of traffic control measures based on the eligibility checklist in this worksheet. Information including traffic speeds, a five-year crash history, and road characteristics will be compiled as part of this initial review. This worksheet's findings would be presented at a meeting with the resident or neighborhood association as part of the explanation of findings and next steps.

Roadway Description	
What is the street classification?	
What is the width and/or number of lanes on the roadway?	
What bike lanes or bike route designation does the roadway have?	
What sidewalks or walkways does the roadway have?	
What bus stops are within 1/4 mile?	
Traffic Volume	
What is the average daily traffic volume?	
Surrounding Area	
What is the zoning of the surrounding properties?	
Are there any schools or parks within 1/4 mile?	
Is the project on a safe route to school?	
List all other pedestrian destinations (high density housing, recreation centers, libraries, other sites that generate high pedestrian volumes) within 1/4 mile?	
Speed	
What is the posted speed?	
What is the 85th percentile speed?	
Crash History	
How many reported crashes were recorded in the last five years?	
How many reported crashes were recorded involving pedestrians/bicycles and parked vehicles/fixed objects in the last five years?	
How many reported crashes were recorded involving injuries or fatalities in the last five years?	

Eligibility Checklist		
1. Is the roadway classified as a local roadway?	❒ Yes—*Proceed to* ***question 6.***	❒ No—*Proceed to* ***question 2.***
Arterials and Collectors		
2. Does the roadway have residential frontage?	❒ Yes—*Proceed to* ***question 3***.	❒ No—*Project is not eligible.* ✗
3. Is the average daily traffic volume on the roadway between 1,000 and 2,500 vehicles?	❒ Yes—*Proceed to* ***question 4.***	❒ No—*Project is not eligible.* ✗
4. Is the 85th percentile speed at least 10 mph above the posted speed limit?*	❒ Yes—*Project is eligible for low cost tools.* ✓	❒ No—*Proceed to* ***question 5.***
5. Are there at least two reported crashes involving injuries or fatalities?*	❒ Yes—*Project is eligible for low cost tools.* ✓	❒ No—*Proceed to* ***question 9.***
Local Roads		
6. Is the 85th percentile speed at least 10 mph above the posted speed limit?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to* ***question 7.***
7. Are there any reported crashes involving injuries, fatalities, pedestrian/bicycles, or parked vehicle/fixed object in the last five years?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to* ***question 8.***
8. Are there at least two reported crashes per mile in the last five years?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to* ***question 9.***
9. Does the roadway have bike lanes or bike route designation?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 10.***
10. Does the roadway have portions of sidewalks missing?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 11.***
11. Does the roadway have any school or parks within 1/4 mile?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 12.***
12. Does the roadway have at least two pedestrian destinations (schools, parks, retail, community centers, libraries, etc.) within 1/4 mile?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Proceed to* ***question 13.***
13. Is the project on a safe route to school?	❒ Yes—*Proceed to* ***question 14.***	❒ No—*Project is not eligible.* ✗
14. Is the 85th percentile speed at least 5 mph above the posted speed limit on non-local roadways, or 3 mph above the posted speed limit on local roadways?	❒ Yes—*Project is eligible.* ✓	❒ No—*Proceed to* ***question 15.***
15. Are there at least two reported crashes/mile in the last five years on non-local roadways, or any reported crashes in the last five years on other roadways?	❒ Yes—*Project is eligible.* ✓	❒ No—*Project is not eligible.* ✗

**Non-local roadways (arterials and collectors) are only eligible for low-cost tools*

Neighborhood Traffic Management Program 2023
Level 3 Concept Tools Compilation

Clark County Washington
Public Works

CLARK COUNTY

NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM

LEVEL 3 CONCEPT TOOLS COMPILATION

Neighborhood Traffic Management Program

Level 3 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education/ Community Involvement					◆	◆						$
Special Neighborhood Sign				◆	◆	◆	◆	◆	◆	◆	◆	$
Neighborhood Traffic Management Website	◆					◆						$$
Increased Police Enforcement	◆											$$$
Signage & Striping												
Optical Speed Bars	◆					◆		◆	◆	◆	◆	$
Striping Narrower Lanes	◆				◆	◆	◆	◆	◆	◆	◆	$$
High-visibility crosswalks					◆	◆	◆	◆	◆	◆	◆	$$
Minor Street Modifications												
Centerline Raised Pavement Markers	◆					◆	◆					$
Street Murals	◆							◆	◆	◆	◆	$$
Minor Sidewalk Filling					◆	◆			◆			$$
Textured Pavement					◆			◆	◆		◆	$$$
Electronic Signage												
Speed Radar Trailer	◆				◆	◆	◆	◆	◆	◆	◆	$
Speed Feedback Signs	◆					◆	◆	◆	◆	◆	◆	$
School Zone Flashing Beacons	◆				◆				◆			$$
RRFB/PHB					◆		◆	◆	◆	◆	◆	$$

**Each*

Horizontal Measures	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Gateways and Entry Treatments	◆							◆	◆	◆		$$
Traffic Circles	◆	◆	◆			◆	◆	◆	◆	◆		$$*
Lateral Shifts	◆					◆		◆	◆	◆	◆	$$**
Pedestrian Refuge Island					◆	◆	◆	◆	◆	◆	◆	$$$
Traffic Football	◆							◆	◆	◆	◆	$$$$
Chokers	◆				◆			◆	◆	◆	◆	$$$$$
One-Lane Choker	◆				◆			◆	◆	◆	◆	$$$$$
Chicanes	◆				◆			◆	◆	◆		$$$$$
Roundabout (Single-Lane)	◆					◆						$$$$$
Vertical Measures												
Speed Humps	◆		◆					◆	◆	◆		$*
Speed Cushion	◆							◆	◆	◆	◆	$*
Speed Kidneys	◆							◆	◆	◆	◆	$*
Speed Table	◆							◆	◆	◆	◆	$*
Raised Crosswalk	◆				◆		◆					$$*
Raised Intersection	◆				◆		◆	◆	◆	◆	◆	$$$$$
Parking												
Angled Parking	◆			◆				◆	◆	◆	◆	$
Parking Restrictions				◆	◆		◆	◆	◆	◆	◆	$

**Each*

***$$$ If Lateral Shift involves drainage*

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Vegetation												
Vegetation Maintenance					◆	◆	◆	◆	◆		◆	$
Curbside and Median Trees	◆							◆		◆		$$$
Other Traffic Diversion												
Partial Closures		◆	◆		◆	◆	◆	◆	◆	◆	◆	$$$
Intersection Channelization/ Forced-Turn Islands/Semi-Diverters		◆	◆		◆	◆	◆	◆	◆	◆	◆	$$$$
Median Barrier		◆	◆			◆	◆	◆	◆	◆		$$$$
Diagonal Diverter		◆	◆									$$$$
One-Way Couplet Conversions		◆	◆	◆	◆				◆		◆	$$$$
Two-Way Street Conversions	◆	◆	◆	◆	◆				◆		◆	$$$$
Road Narrowing / Detached Sidewalks	◆				◆			◆	◆	◆	◆	$$$$
Full Closure/Cul-De-Sac/Dead End Streets		◆	◆					◆	◆	◆	◆	$$$$$

**Each*

Education & Enforcement

Neighborhood Education/Community Involvement

Description

Distribution of educational materials regarding safety concerns to local residents. Project proponents circulate petition to residents of treated street.

Advantages

- The community is involved and has a resource.

Disadvantages

- The community could be frustrated with the lack of resources from the county.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Education & Enforcement
Special Neighborhood Sign

Description
Signs alerting motorists they are entering traffic calming areas.

Advantages
- Low costs, easy implication.

Disadvantages
- Overuse can lessen effectiveness.

Scorecard

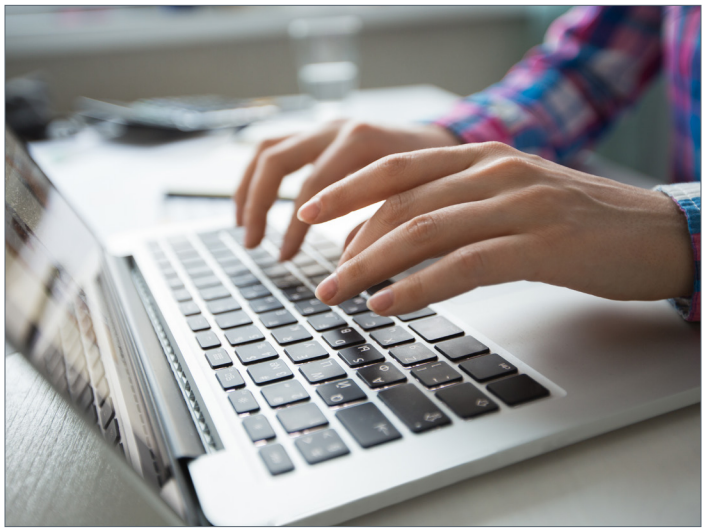
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Education & Enforcement

Neighborhood Traffic Management Website

Description

Page on jurisdiction website defining the problem locations and issues.



Advantages

- The community has a process and a resource to learn what options are available to them.

Disadvantages

- Resources to keep the web site up to date and active.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Education & Enforcement
Increased Police Enforcement

Description
Increased police deployed to collectors or arterials with residential frontage.

Advantages
- Fast results.

Disadvantages
- High costs, lack of resourses, short term.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$$

Signage & Striping
Optical Speed Bars

Description
Series of pavement markings spaced at decreasing distances, providing drivers with impression of increased speed.

Source: Journal of Transportation Technologies 2017

Advantages
- Can be implemented quickly.

Disadvantages
- Increases maintenance and resurfacing costs.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Signage & Striping

Striping Narrower Lanes

Description

Centerline and edgeline lane striping (See Clark County Traffic Manual pg. 23-27 for striping guidelines).

Source: Saferoutesinfo.org

Advantages

- Can be implemented quickly.
- Can reduce speeds and improve safety.

Disadvantages

- Residents may oppose striping neighborhood streets.
- Increases maintenance and resurfacing costs.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$

Signage & Striping
High-Visibility Crosswalks

Description

Marked crosswalk with two-foot-wide crosswalk bars, in-advance stop bars, signage, and lighting; see County Enhanced Crossing Policy.

Advantages

- Can be implemented quickly.
- Increases visibility.

Disadvantages

- High maintenance costs.
- Increases cost of resurfacing.

Scorecard

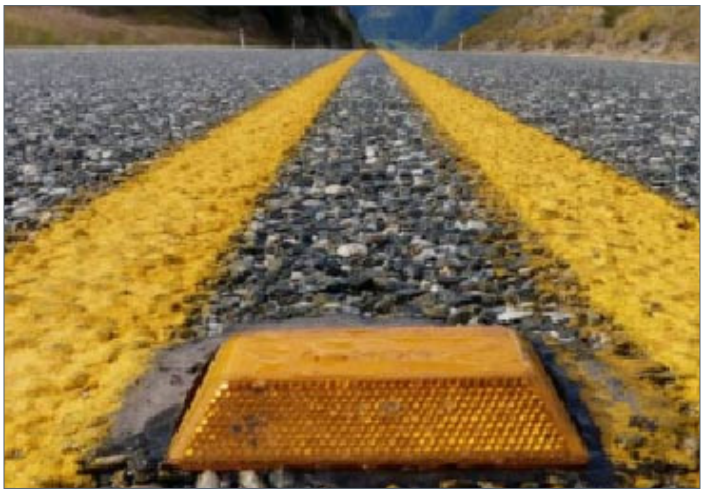
Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$

Minor Street Modifications

Centerline Raised Pavement Markers

Description

Raised pavement markers, often reflective.



Source: i.pinimg.com

Advantages

- Can reduce speed.
- Provide nighttime guidance.

Disadvantages

- Do not hold up to snow plow.

Scorecard

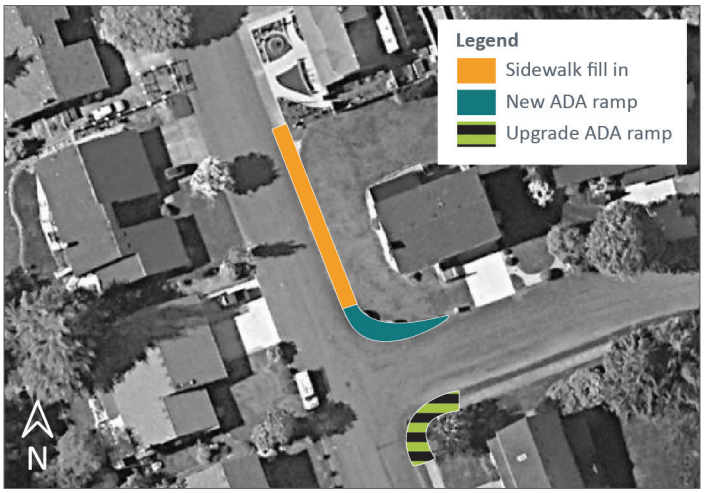
Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$

Minor Street Modifications

Minor Sidewalk Filling

Description

Small sidewalk infills.



Advantages

- Pedestrian connectivity.
- Safety; providing pedestrian route (not in the street).
- Cost-effective when right-of-way, adjacent curb, and gutter are in place.
- Increase in property values.

Disadvantages

- Too costly if right-of-way or drainage system is needed.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Minor Street Modifications
Street Murals

Description
Painted murals in the center of intersections maintained by Neighborhood Associations (NAs).

Source: i.pinimg.com

Advantages
- Can add aesthetic value.
- Can reduce speed.

Disadvantages
- Requires frequent maintenance.
- Motorist compliance is voluntary.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$

Minor Street Modifications
Textured Pavement

Description
Stamped pavement or alternate paving materials to create an uneven surface (need have this option reviewed by the biking community and CC BPAC before installing).

Source: Squarespace

Advantages
- Can reduce vehicle speeds over an extended length.
- Can add aesthetic value.
- Can calm two streets at once.

Disadvantages
- Tend to be expensive, varying by materials used.
- Can make crossings more difficult for wheelchair users and the visually impaired.
- Can create noise disturbance for nearby residences.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	✓
Cost	$$$

Electronic Signage
Speed Radar Trailer

Description
Speed radars measure and alert motorists to their speed and speed limits (temporary).

Source: TrafficCalm.com

Advantages
- Can be implemented quickly.
- Can reduce speeds and improve safety.

Disadvantages
- Not provided by CCPW, they are owned by CCSO.
- Temporary solution.
- May lose effectiveness over time without enforcement.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Electronic Signage
Speed Feedback Signs

Description

Speed feedback signs measure and alert motorists to their speed and speed limits (temporary).

Source:azdot.gov

Advantages

- Can reduce speeds and improve safety.

Disadvantages

- Motorist compliance is voluntary.
- Requires long sight lines to be effective.
- Not effective in long term without enforcement.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Electronic Signage
School Zone Flashing Beacons

Description
Flashing yellow beacons and speed limit signs near schools.

Source: carmanah.com

Advantages
- Reinforces reduced speed limits near schools.
- Safer environment for school pedestrians.

Disadvantages
- Expensive to install.
- Added maintenance expense.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$

Electronic Signage
RRFB/PHB

Description

RRFB (Rapid Reflective Flashing Beacon) or (PHB) Pedestrian Hybrid Beacon pedestrian crossings with included lighting, signage, and striping; see County Enhanced Crossing Policy.

Source: Carmanah.com

Advantages

- Provides safe environment for pedestrians to cross.

Disadvantages

- Expensive to install.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$

Horizontal Measures

Gateways and Entry Treatments

Description

Entrance to roadways that narrows width of road, often through use of islands, textured pavements, monuments, or signs.

Source: net1.realleads.net

Advantages

- Reduces vehicle speed.
- Enhances neighborhood identity and provides a landmark.

Disadvantages

- Can be costly to construct.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$

Horizontal Measures
Traffic Circles

Description
Raised islands placed at the center of the intersection, approaches to intersection are generally controlled by stop signs or yield signs, vehicles are directed to travel around the islands.

Source: Seattle.gov

Advantages
- Effective in moderating speeds and improving safety.
- Can add aesthetic value.
- Can calm two streets at once.

Disadvantages
- Difficult for large vehicles.
- May eliminate some on-street parking.
- Landscaping must be maintained, either by the residents or by the City.

Scorecard

Speed Reduction	✓
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$*

**Each*

Horizontal Measures
Lateral Shifts

Description
Curb extensions on straight streets that cause a shift in travel.

Source: Federal Highway Administration

Advantages
- Effective in reducing speeds.

Disadvantages
- Increases in regular maintenance.
- Loss of parking.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$**

*** if Lateral Shift involves drainage*

Horizontal Measures
Pedestrian Refuge Island

Description
Raised island that provides a gap for pedestrians to walk through at a crosswalk.

Source: Federal Highway Administration

Advantages
- Reduced pedestrian crashes.
- Separating traffic moving in opposite directions to reduce head-on and overtaking crashes.
- May slow vehicular traffic by narrowing the lanes.
- Ensures pedestrians need only cross one lane of traffic at a time.

Disadvantages
- Pedestrian refuge islands must be clearly visible to traffic during both day and night.
- Refuge islands should be placed where there is a demand from pedestrians to cross.
- Where cyclists are present, refuge islands should be widened to at least 7.5 feet, and preferably 10 to 12 feet.
- To avoid pedestrians looking into the wrong traffic direction, central refuge islands should only be provided to separate opposing traffic.
- Turning movements from driveways and intersections must be considered in planning the location of pedestrian refuges.
- Consideration should be given to improving accessibility for the mobility impaired. This may include design features such as paved footpaths with sufficient width to accommodate wheelchairs, dropped curbs at pedestrian crossing points, and tactile paving.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$

Horizontal Measures
Traffic Football

Description
Small circular or oval island located in the center of the road at mid-block locations.

Source: Web

Advantages
- Can slow traffic.

Disadvantages
- Emergency vehicle response time could potentially be increased.
- May require the relocation of curb, gutter, and sidewalk.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$

Horizontal Measures
Chokers

Description
Curb extensions that narrow street at midblock and intersection locations.

Source: pinimg.com

Advantages
- Improves pedestrian circulation and space.
- Easily negotiable by large vehicles.
- Create protected on-street parking bays.
- Effective in reducing speeds, especially for right-turning vehicles.

Disadvantages
- May slow emergency vehicles.
- May eliminate some on-street parking.
- May require bicyclists to briefly merge with vehicular traffic.
- Can cause drainage issues.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$$

Horizontal Measures
One-Lane Chokers

Description
Curb extensions that narrow street at midblock locations to only allow travel in one direction at a time. Only to be used on urban collectors with low volumes.

Source: FHWA.dot.gov

Advantages
- Decreases vehicle speeds.
- Reduces cut-through traffic.

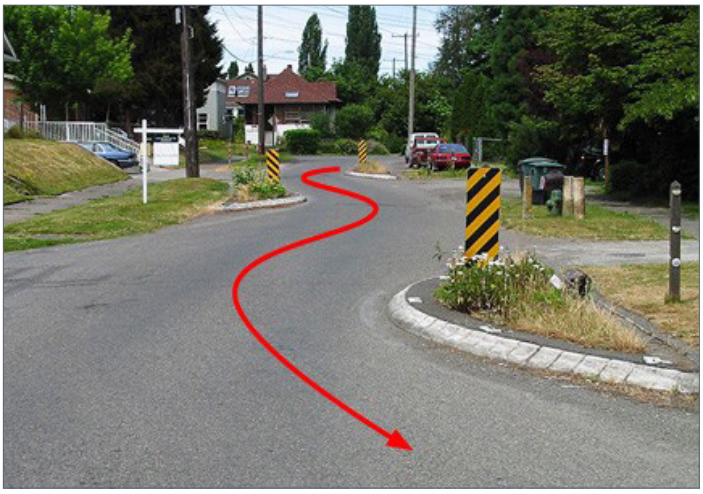
Disadvantages
- Perceived to be less safe because oncoming vehicles are required to share a single travel lane.
- May reduce on-street parking.
- Complicates drainage design.
- May require additional maintenance.
- Reduces bicycle lane and/or side of road area used by bicyclists.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$$

Horizontal Measures
Chicanes

Description
Artificial blockages on opposite sides of street to create S-shaped curvature.



Source: fdncmcs.com

Advantages
- Effective in reducing speeds.
- Easily negotiable by large vehicles, except under heavy traffic conditions.

Disadvantages
- Must be designed carefully to discourage drivers from deviating out of the appropriate lane.
- Can be expensive.
- May eliminate some on-street parking.
- Can cause drainage issues.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$$$$

Horizontal Measures
Roundabout (Single-Lane)

Description
Yield-controlled with splitter islands, used on larger roadways than traffic circles and a substitute for traffic signals.

Source: theurbanist.com

Advantages
- Minimize queuing at approaches.
- Less expensive to operate than traffic signals.
- Greatly reduces severe injury and fatality rates.

Disadvantages
- May reduce on-street parking.
- Must be designed so that circulating lane does not encroach on the sidewalk.
- Can require additional right-of-way needs.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$$$$

Vertical Measures
Speed Humps

Description
Asphalt humps extending across roadway (14 feet wide).

Source: amazonaws.com

Advantages
- Relatively inexpensive.
- Relatively easy for other road users.
- Effective in slowing speeds.

Disadvantages
- Can cause a rough ride.
- May increase noise pollution.
- Can impede emergency vehicle speeds.
- Can cause drainage issues.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$*

**Each*

Vertical Measures
Speed Cushions

Description
Humps extending across roadway with wheel cutouts designed to allow emergency vehicles and buses to pass with minimal slowing.

Source: phoenix.gov

Advantages
- Does not impede emergency vehicle speeds.
- Effective in slowing passenger car speeds.

Disadvantages
- Less effective than speed humps for the same costs.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$*

**Each*

Vertical Measures
Speed Kidneys

Description
Three speed lumps elongated with a curvilinear shape in the direction of traffic, one in the center of each travel lane and one between the two travel lanes.

Source: Mikeontraffic.com

Advantages
- Decreases vehicle speeds.
- Discourages cut-through traffic.
- Inexpensive and easy to construct.

Disadvantages
- May cause speeding beyond the speed kidney.
- May divert traffic to an adjacent neighborhood street.
- May increase noise levels as vehicles decelerate and accelerate.
- May be confusing to drivers.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$*

**Each*

Vertical Measures
Speed Table

Description
Flat-topped humps extending across roadway approximately 22 feet long with more gently sloped ramps than Speed Humps.

Source: Alternativepress.com

Advantages
- Easier on large vehicles (such as fire trucks) than Speed Humps.
- Effective in reducing speeds, but not as well as Speed Humps.
- Enhance safety.

Disadvantages
- Unattractive without textured pavement.
- Textured materials, if used, can be expensive.
- May increase noise and air pollution.
- Can cause drainage issues.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$*

**Each*

Vertical Measures
Raised Crosswalk

Description
Crosswalks with striped markings located on speed tables.

Source: Lakelandgov.net

Advantages
- Improve pedestrian and vehicular safety.
- Can add aesthetic value.
- Effective in reducing speeds.

Disadvantages
- Textured materials, if used, can be expensive.
- Potentially impacts drainage.
- May increase noise and air pollution.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	✓
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$*

**Each*

Vertical Measures
Raised Intersection

Description
Flat raised areas covering entire intersections, including crosswalks, with ramps on all approaches.

Source: Agassiz.org

Advantages
- Improves pedestrian and vehicular safety.
- Can add aesthetic value.
- Can calm two streets at once.

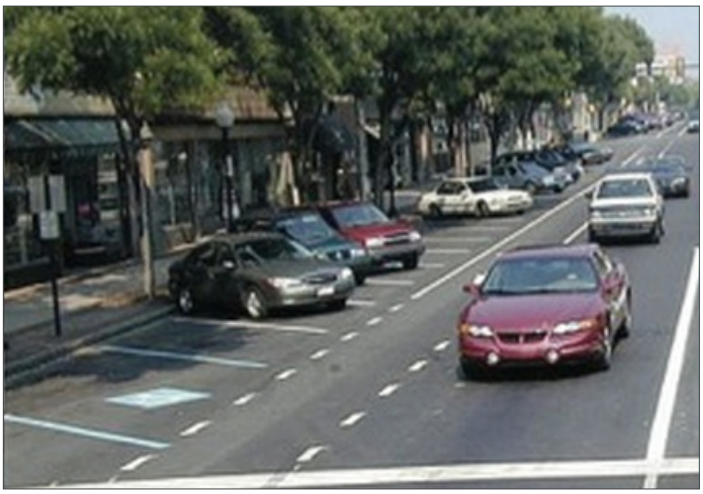
Disadvantages
- Tend to be expensive, varying by materials used
- Potentially impacts drainage.
- Less effective in reducing speeds than Speed Humps, Speed Tables, or Raised Crosswalks.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$$$

Parking
Angled Parking

Description
On-street angled parking (needs County Engineer approval)



Source: mml.org

Advantages
- Angled cars provide a large buffer between pedestrian spaces and traffic.
- Opening car doors are not a threat to cyclists/through traffic.

Disadvantages
- Impedes traffic flow.
- Right-of-way impacts.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Parking
Parking Restrictions

Description
Adding or removing on-street parking (needs County Traffic Engineer approval and could require Council approval).

Source: Creativecirclemedia.com

Advantages
- Removing parking spots near intersections can improve sight distance at intersections.
- Preserves access for mail and bus stops.

Disadvantages
- May result in higher speeds with no parking on the roadway.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$

Vegetation

Vegetation Maintenance

Description

Trimming vegetation along streets to improve visibility and sight distance.

Advantages

- Landscaping increases motorists' awareness and can help define a neighborhood's identity.
- Increases the quality of life of a community.

Disadvantages

- Must be maintained so that it does not create an unsafe visual barrier.
- Maintenance costs can be high.

Scorecard

Speed Reduction	○
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$

Vegetation
Curbside and Median Trees

Description
Trees planted alongside the curb or in median gives impression of narrower street.

Source: Townnews.com

Advantages
- Can reduce speed.
- Enhances aesthetic.

Disadvantages
- Sight distance may be impacted.
- Requires frequent maintenance.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$$

Other Traffic Diversion
Partial Closures

Description
Barriers that block travel in one direction for a short distance on two-way streets.

Source: Web

Advantages
- Eliminates cut-through traffic in one direction.
- Reduces speed and volumes in immediate area.

Disadvantages
- Delays emergency vehicles.
- Increased travel time and out-of-direction travel for local residents.

Scorecard

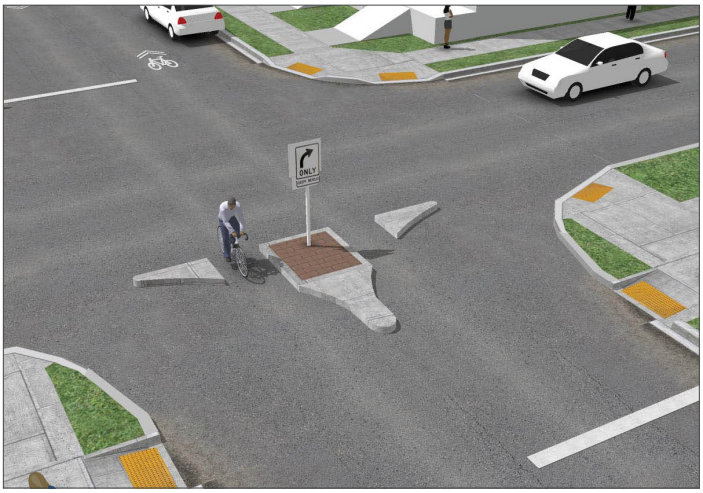
Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$

Other Traffic Diversion

Intersection Channelization/Forced-Turn Islands/Semi-Diverters

Description

Raised islands at intersections to force traffic to make or prevent certain movements.



Source: nacto.org

Advantages

- Eliminates through traffic.
- Reduces intersection conflicts.
- Can allow bicycle through movements.

Disadvantages

- Delays emergency vehicles.
- Increased travel time and out-of-direction travel for local residents.

Scorecard

Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$

Other Traffic Diversion
Median Barrier

Description
Physical barrier placed to prevent left-turn movements.

Source: pinimg.com

Advantages
- Separates opposing travel lanes.
- Shortens pedestrian crossings.

Disadvantages
- May interrupt emergency access and operation.
- Can create drainage issues.
- Must engage with adjacent residential and commercial property owners to listen and educate.

Scorecard

Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	✓
Sight Distance	✓
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	○
Cost	$$$$

Other Traffic Diversion
Diagonal Diverter

Description
Physical barrier placed diagonally across an intersection, creating two unconnected streets.

Source: pedbikesafe.org

Advantages
- Reduces cut-through traffic.
- Reduces speeds and volumes in immediate area.

Disadvantages
- Delays emergency vehicles.
- Increased travel time and out-of-direction travel for local residents.
- May create situation where drivers are going around the feature.

Scorecard

Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	○
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	○
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	○
Cost	$$$$

Other Traffic Diversion

One-Way Couplet Conversions

Description

Changing the operations of two adjacent two-way streets to two one-way streets.

Source: gettingaroundsac.blog

Advantages

- Provides opportunities to create bicycle lanes and/or on-street parking.

Disadvantages

- Delays emergency vehicles.
- Increase travel time and out-of-direction travel for local residents.

Scorecard

Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	✓
Cost	$$$$

Other Traffic Diversion
Two-Way Street Conversions

Description

Changing the operations of a one-way street to a two-way street.

Source: web

Advantages

- May reduce vehicle speed.

Disadvantages

- Introduces more vehicles, bicycle, and pedestrian conflicts.
- May impact bicycle lanes and parking.

Scorecard

Speed Reduction	✓
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	✓
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	○
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	○
Vicinity to Transit Line	✓
Cost	$$$$

Other Traffic Diversion

Road Narrowing/Detached Sidewalks

Description

Adding landscape strips to narrow roadway and detach sidewalks.

Source: staticflickr.com

Advantages

- Reduces the width of pedestrian crossing.
- Reduces vehicle speeds.

Disadvantages

- Expensive.

Scorecard

Speed Reduction	✓
Traffic Volume	○
Traffic Diversion	○
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$

Other Traffic Diversion

Full Closure/Cul-De-Sac/Dead End Streets

Description

Barriers placed across streets, potentially removing legs of intersections, not always with adequate turn around space, usually leaving only sidewalks and bicycle paths open, and potentially requiring fire truck turnarounds.

Advantages

- Eliminated cut-through traffic.
- Reduces speeds and volumes in immediate area.

Disadvantages

- Delays emergency vehicles.
- Increase travel time and out of direction travel for local residents.
- Must engage with adjacent community to gain support.

Scorecard

Speed Reduction	○
Traffic Volume	✓
Traffic Diversion	✓
Neighborhood Parking Management	○
Bike/Ped. Facilities Connectivity	✓
Safety	○
Sight Distance	○
Neighborhood Park Vicinity	✓
Safe-Route-To-School Location	✓
Zoning for Medium- or High-Density Residential	✓
Vicinity to Transit Line	✓
Cost	$$$$$

Neighborhood Traffic Management Program
Project Prioritization Worksheet

Neighborhood Traffic Management Program
Project Prioritization Worksheet

This worksheet will be completed by Clark County staff in accordance with the County's NTMP. NTMP requests meeting the qualifying criteria will be prioritized based on the following information:

- Pedestrian Destinations - Proximity to schools, bus stops, parks, commercial centers, and other destinations.
- Surrounding Zoning - Proximity to high density housing
- Travel Speeds - How much the 85th percentile speed is over the posted speed limit.
- Average Daily Traffic – Average Daily Traffic on the roadway
- Crash History - The number of crashes in a 5-year period.
- Sidewalks and Walkways – The existing pedestrian infrastructure.
- Bike Infrastructure – The existing bicycle infrastructure or designation.
- On street parking – Utilization of parking spaces on roadway
- Free and Reduced Lunch – Identifies Environmental Justice areas for equity

The prioritization system ensures an even playing field and providing transparency to the process.

NTMP Request Priortization

Request Information	
Date	
Contact	
Street/Location Name	
Neighborhood Name	
Issue or Concern Description	

Roadway Information	
Arterial Atlas Classification	
Surrounding Zoning	
Posted Speed Limit	

Point Allocation

NTMP Request	Criteria	Value	Data	Points	Max Points
Pedestrian Destinations *Schools, parks, libraries, bus stops, and stores*	The project is within 1/4 mile of a transit/school bus stop	5/per			15
	The project is within 1/4-1/2 mile of a transit/school bus stop	3/per			9
	The project is within 1/4 mile of a public school	5/per			15
	The project is within 1/4-1/2 mile of a public school	3/per			9
	The street is an access route to another pedestrian destination	3/per			15

Point Allocation					
NTMP Request	**Criteria**	**Value**	**Data**	**Points**	**Max Points**
Surrounding Zoning *Zoning adjacent to roadway of concern*	Percentage of high-density residential surrounding zoning	%/20			5
	Percentage of medium or low-density residential surrounding zoning	%/30			3
Travel Speeds	85th percentile speed > 10 mph over the speed limit	3/mph			15
	85th percentile speed 5-10 mph over the speed limit	2/mph			10
Average Daily Traffic	For arterials and collectors	ADT/1,000			5
	For local roads	ADT/200			10
Crash History	Crashes involving injury to a pedestrian or bicyclist in a 5-year period	10/per			20
	Other crashes involving injuries or fatalities in a 5-year period	10/per			20
	Other crashes in a 5-year period	5/per			20
Sidewalks and Walkways	Percentage of roadway without sidewalks or walkways	%/10			10
Bicycle Infrastructure	Does the roadway have bike lanes?	2			2
	Is the roadway designated as a shared use roadway bike route without bike lanes?	5			5
Parked Vehicles	Percentage of available street parking utilized	%/10			10
Equity	Percentage of students on Free or Reduced Lunch at surrounding schools	%/5			5
	Percentage of elderly population (65 and older) in the surrounding neighborhood	%/5			5
	Percentage of youth population (17 and younger) in the surrounding neighborhood	%/5			5
	Percentage of non-white and Hispanic population in the surrounding neighborhood	%/5			5
	Percentage of non-English speaking households in the surrounding neighborhood	%/5			5
	Percentage of households without access to a vehicle in the surrounding neighborhood	%/5			5
	Percentage of population with a disability in the surrounding neighborhood	%/5			5
				TOTAL	**230**

Neighborhood Traffic Management Program Petition Form

Neighborhood Traffic Management Program
Petition Form

Upon completion of the site review and investigation, Clark County staff will review the findings with neighborhood representatives. A minimum of 50% acknowledge homes within a specified survey area must be achieved in order to demonstrate the required degree of resident support. Up to three weeks will be permitted for the collection of necessary signatures and survey submission to the County.

This petition must be distributed and completed by all potentially affected residents to determine the level of support for the proposal and returned to Clark County staff for review.

The petition area includes houses:

- ❑ Whose front, rear, or side yard adjoins the street or alley segment in which a proposed treatment would be located
- ❑ That are located on adjacent streets on which traffic may be diverted if the proposed traffic calming treatment is installed

Printed Name	Signature	Home Address	Acknowledge

Appendix C

Appendix C NTMP Background Research and Best Practices

- 1994 Clark County Speed Bump Program
- 1999 Clark County Neighborhood Traffic Calming Devices
- Review of Existing Programs Memorandum
- Development Potential Measures for the NTMP Memorandum and Matrix
- Memorandum to Identify Demonstrated Safety, Liability, and other Benefits or Detractions in Neighborhood Management Programs
- Process to Achieve Consensus Memorandum

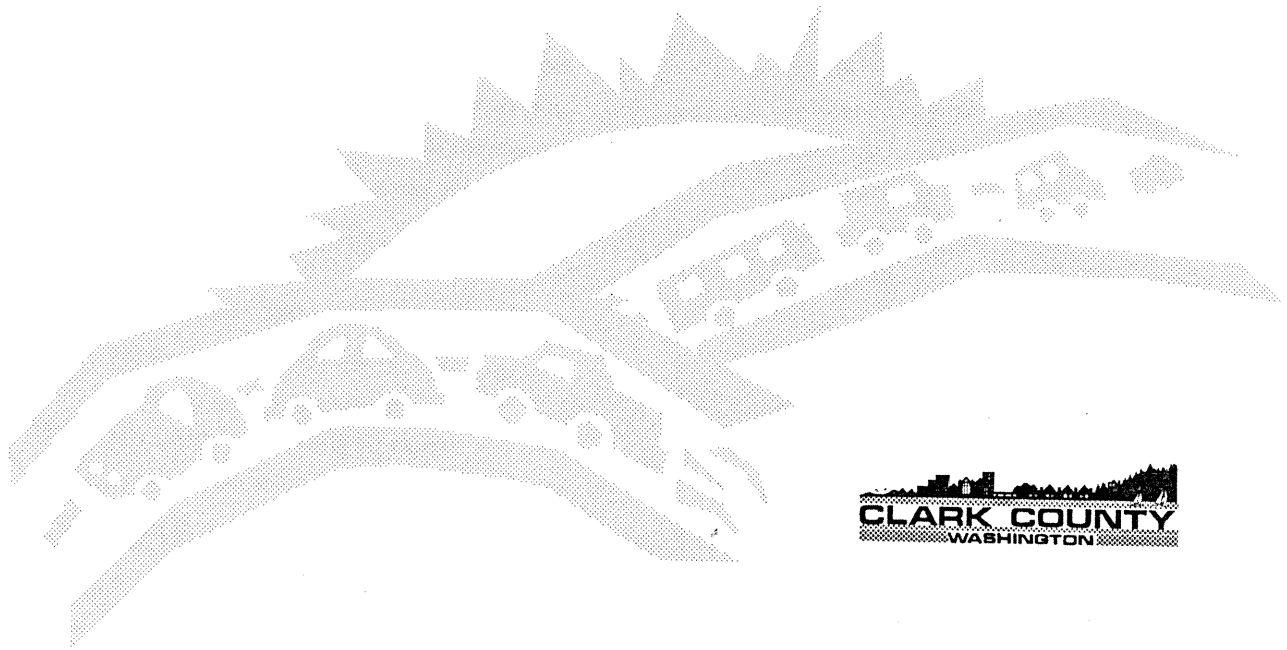
1994 Clark County
Speed Bump Program

For more information on Clark County's Urban Speed Bump Program, please contact John Bartels or Chuck Green at the Clark County Public Works Department, 699-2375, extensions 4912 and 4832 respectively.

CLARK COUNTY

SPEED BUMP PROGRAM

for urban areas



CLARK COUNTY
WASHINGTON

THE PROBLEM: Too many vehicles, and vehicles that speed. They make some neighborhood streets in urban areas unsafe for pedestrians, bicyclists, and residents.

A SOLUTION: Speed bumps, which are areas in the road surface that are deliberately raised. They reduce excessive speeds by making it uncomfortable to drive over them faster than the legal speed limit. SPEED BUMPS USED ON STREETS ARE DIFFERENT FROM THOSE IN PARKING LOTS. They are as wide as the street, approximately 14 to 22 feet long, and 3 inches high.

THE REQUEST FOR A SPEED BUMP: An individual, a citizens group, or a neighborhood association can request a neighborhood speed bump project. Requests need to be made in writing to the Clark County Engineer, PO Box 9810, Vancouver, WA 98668. All written requests will be presented to the Traffic Management Advisory Committee (TMAC) for their review.

THE REVIEW: Data is gathered about such factors as volume, speed, and accident information for the area. The county reviews this information and assigns points to the request. County traffic engineers also review requests for other possible solutions that may be more effective.

THE POINTS: Each request for a speed bump project is given a numerical score based on the factors below. The ten projects with the highest scores are sent to the neighborhoods for residents' comments.

- Average daily traffic volume (30 points maximum score)
- Percent of vehicles over the speed limit (30 points maximum score)
- Accident rate (10 points maximum score)
- Proximity of a public or private school (5 points for each school)
- Proximity of other pedestrian-oriented facility, such as housing for the elderly or a park (5 point for each; 10 points maximum score)

THE RANKING:

The list of the top ten projects, along with neighborhood comments, is forwarded to TMAC, which prioritizes the projects countywide. A high ranking, available budget, and other factors determine which projects are begun first. The number of projects initiated each year may vary, depending on county resources.

URBAN Neighborhood Speed Bump Program

Design & Testing Criteria

March 10, 1994

TABLE OF CONTENTS

INTRODUCTION

Clark County's road system is the backbone of transportation in the unincorporated area. It is designed in a hierarchical structure with each level serving a specific purpose, from moving large volumes of traffic between communities to providing access to small neighborhoods.

Roadway use sometimes exceeds designed capacity. These extreme use patterns have many causes, including changes in land use, rapid population growth, and the behavior of the vehicle operator.

This report focuses on **ONE SPECIFIC PROBLEM**: excessive speeds and traffic volumes on urban neighborhood streets that make them unsafe for pedestrians, bicyclists, and residents. It also focuses on one primary cause: the behavior of the vehicle operator.

BACKGROUND

Clark County receives numerous requests for assistance with excessive speeds and traffic volumes on neighborhood streets. Requests come from individuals, neighborhoods, and various interest groups.

Currently, there are no structured programs and few tools to address system failures at the urban neighborhood level.

- The current Comprehensive Land Use Plan provides only broad guidance. It suggests that land uses should "minimize adverse social, economic and environmental impacts and costs."

- The Transportation Element of the plan is also general. It states that "transportation facilities should utilize appropriate design to protect and enhance adjacent neighborhoods and communities."

- County road standards identify different levels of service for streets that serve neighborhoods, but do not address the issues of excessive speed and volume directly.

- Currently, the County's Six-Year Transportation Improvement Program (TIP) targets major projects. It does not address urban neighborhood access roads and/or safety improvements. A speed bump program would provide for these types of projects, with program funding included in the TIP.

Clark County is proposing to address the problem of excessive speeds and traffic volumes on urban neighborhood streets by establishing a process for reviewing and evaluating requests for assistance, and for targeting physical improvements to resolve identified problems.

PROGRAM REVIEW

The first step in preparing this report was a review of similar programs in other communities. Based on its success in confronting neighborhood traffic problems, Portland, Oregon, was used as a model. Their action plan, *Reclaiming Our Streets: Traffic Solutions, Safer Streets, More Livable Neighborhoods*, takes a comprehensive five-part approach.

- Education - "Provide educational opportunities for children and adults that will encourage safe and equal access of roadways and sidewalks for all transportation modes."

- Encouragement - "Sponsor community activities and other public events that encourage safe, pleasant, and accessible conditions for all transportation options, and which encourage perception of city and neighborhood streets as 'community space' rather than 'car space.'"

- Engineering - "Plan and implement an interconnected street and pedestrian physical network that incorporates both new

and established engineering methods for enhancing safety and livability through traffic changes and through access to alternative transportation."

- Enforcement - "Improve efficiency and effectiveness of traffic laws through community self-policing methods, improved training of police officers, and stronger sanctions against offenders."

- Legislation - "Legislate changes in funding and traffic laws to provide safe and accessible conditions for users of all transportation modes, with emphasis on bicyclists and pedestrians, and to reduce hazards caused by intoxicated drivers (DUI) and non-use of safety restraints.

While Portland's program serves as an excellent model and is admirable both in its comprehensive approach and its 16-month citizen-based process, the Clark County proposes implementation of only one program element at this time: engineering solutions.

The targeting, at this point, of an engineering solution alone is just the initial step in a program envisioned to be much larger in scope. By concentrating on the engineering aspect, the program's onset would be more rapid, with the potential for faster analysis of its results. As the initial step proves its successfulness, the program can be expanded to incorporate other phases. Also, due to limited funding resources and staff, the ability to proceed with a more extensive program is restricted.

DEFINITION OF TERMS

Local Access
(as defined in Clark County Road Standards)

- "Neighborhood circulator" streets serve to distribute traffic from collectors and provide direct access for abutting properties. Through trips are discouraged and parking is not allowed. Transit use is low while the neighborhood focus provides bike lanes for bicyclists and sidewalks for pedestrian use.

- "Local access" streets provide direct access to adjoining properties within a neighborhood. Through trips are discouraged and parking is allowed. There is very limited fixed route transit usage and the neighborhood focus is for bicycle and pedestrian use.

- "Residential" streets are a special category of local access streets with outlets that connect single streets or adjoining streets. Typically, they serve 50 dwelling units or less. They provide neighborhood circulation for bicycle and pedestrian movements. There is no fixed route transit use.

Neighborhood Access
(as defined in Clark County Road Standards)

- "Neighborhood Collector" streets serve to distribute traffic from collectors and provide direct access for abutting properties. Through trips are discouraged and parking is allowed. Transit use is low while the neighborhood focus provides for high levels of pedestrian use.

Urban
- An area within an adopted urban growth area (as defined by the County pursuant to Section 11 of the Growth Management Act of 1990), and developed to a sufficient degree as to be readily recognized as urban in nature.

ENGINEERING SOLUTIONS

Using data gathered during Portland's planning project, the Public Works Department has concluded that focusing resources on specific, successful engineering methods will produce the most efficient and immediate results. Other program elements, such as coordination with neighborhood activities, land use planning, and the Sheriff's enforcement and Community

Policing programs, remain important and should be included in longer-range planning efforts.

The department has identified four engineering methods it considers effective in reducing traffic speed and volume. Each method takes a slightly different approach to physically impeding the ability of vehicles to reach excessive rates of speed. They also differ in complexity and cost.

Speed Bumps

Speed Bumps are areas in the roadway surface that are purposely raised in an effort to reduce excessive vehicle speeds by making it uncomfortable to drive over them at speeds above the legally posted speed limits. When spaced close together, they regulate traffic speed and make it more uniform.

Speed bumps used on streets are different than those in parking lots. They are much wider, approximately 14 to 22 feet, and are 3 inches in height. Construction costs are relatively inexpensive.

Large emergency vehicles are more harshly impacted by speed bumps. If speed bumps become too prevalent, emergency response times might be affected.

For these reasons, speed bump placement shall be determined only after thorough study and evaluation of each individual situation by Public Works staff.

Traffic Circles

Neighborhood traffic circles are circular structures, typically 20 to 25 feet in diameter, that are placed in the center of intersections. They tend to reduce the number of vehicles traveling in the 30-mile-per-hour range and above. They are also effective at reducing intersecting accidents and can be used to direct traffic to alternative streets and away from neighborhood streets.

The size of neighborhood traffic circles allows placement in existing intersections without modification to curbs. While traffic circles are effective at reducing vehicle speeds, they are not as effective as speed bumps.

Installation is expensive and maintenance requires relatively large expenditures. Caution should be used in placing traffic circles in areas of high pedestrian activity because they can hide pedestrians from view, especially if vegetation is allowed to grow in height.

Throats

Throats are a narrowing of the roadway, typically at intersections, through use of curb extensions. They can be used to reduce speeds or to redirect traffic by prohibiting two-way flow. The narrower the throat, the better it works in reducing speeds. Some concerns have been raised when throats are placed in locations with high bicycle use, especially where the throat is narrow and forces bicycles and cars to use the same area.

The use of throats provides additional areas for landscaping, thus enhancing the neighborhood. Throats are beneficial to pedestrians because the narrow width is easier for pedestrians to cross.

Chicanes

Chicanes are a series of snake-like curves placed in the roadway. They are typically used in long, wide and straight sections of road to shorten the horizon and make the road feel less like a raceway. Areas of the old road not used for traffic are often landscaped to enhance the neighborhood feel and to further shorten the horizon.

While chicanes reduce speeds and improve the neighborhood feel, they are the most expensive control device to install and maintain. Use of chicanes in most existing roadways requires the elimination of on-street parking. Maintaining street drainage can also become difficult.

Given their relative effectiveness and low cost (see *Speed Bump Evaluation Status Report*, City of Portland, Oregon, June 1992), speed bumps have been selected as the first engineering method to be implemented by Clark County. Other methods will be added as their effectiveness and cost are evaluated.

SPEED BUMP PROGRAM

The objectives of the Speed Bump Program proposed in this report are three-fold:

- Improve neighborhood safety by reducing traffic speed on neighborhood streets.
- Improve neighborhood livability by reducing traffic speeds on neighborhood streets.
- Use county resources more efficiently by prioritizing projects.

Procedures

1. Project Request and Preliminary Review

Neighborhood traffic projects for the County's Speed Bump Program can be requested by either an individual, a citizens group, or by neighborhood associations. All requests will be made in writing to the County Engineer and presented to the Traffic Management Advisory Committee (TMAC) for their review.

County engineers and planners gather preliminary data about the traffic request, including volume, speed, and accident information. The county reviews this information and assigns points to the request, as detailed in the following section, "Point Assignment for Speed Bump Requests." A minimum of 30 points is required for a project to be eligible for the program (see Page 6, "*Point Assignment for Speed Bump Requests*").

Requests are also reviewed by county traffic engineers for other possible solutions. If the preliminary review shows that a hazard to the public exists, the county may address the problem separately from the Speed Bump Program.

2. Priority Ranking

Projects are ranked countywide, based on the point score from Step 1. The highest ranking projects are undertaken first. The number of projects initiated each year depends on county resources.

The county notifies all project requesters of the status of their request after either Step 1 or Step 2, as appropriate. The county also notifies the appropriate individual, citizen group, or neighborhood association of the status of the 10 highest ranking projects and asks for their comments. This project list and attendant comments are then forwarded to TMAC for their consideration in prioritizing the 10 projects.

Once in the process, a project is considered in the annual priority ranking step for up to 3 years. If, after 3 years, a project has not received a high enough priority to proceed, Clark County will notify the requesting individual, ciitizen group, or neighborhood association of its project's status.

The requesting party will have 60 days in which to respond to the County's notice and advise whether or not to retain the project in an active status. If there is no response after the 60 day limit, a project will no longer be eligible for consideration. This time limitation ensures that the project request has not become obsolete because of changing traffic conditions and/or new residents in the area.

If the requesting party asks that a project be continued as active, the County will then obtain current data to update the project information and will retain the project on its list for consideration.

3. Petition-to-Study

If a project is ranked high enough to proceed, a petition-to-study is circulated within a defined project area. The appropriate neighborhood association is given the opportunity to officially request the petition-to-study. If the neighborhood association does not wish to do so, the original project requester is responsible for making the request.

County staff establishes the petition-to-study area, based on the information obtained during the preliminary review. This area is generally defined as those households and businesses fronting on the affected segments of the project street.

The purpose of the petition-to-study is to determine the level of agreement among residents on the project street that there is a problem they want to address. County staff prepares the petition, describing the problem and the procedures to be followed if a study is undertaken. The project requester(s) is responsible for circulating the petition, with county staff assistance as required.

Signatures representing a simple majority of the households and businesses within the petition-to-study area are required to move the project forward. Each household and business is entitled to one signature. Non-resident property owners are not included in the petition-to-study process.

4. Plan Development

The county holds a public meeting in the area to inform residents of the pending project, to describe the Speed Bump Program process, and to gather additional information about the traffic problems and related neighborhood needs.

A citizen traffic committee is formed at this stage. The traffic committee works with county staff to determine its membership criteria and meeting procedures, and continues to work closely with staff throughout the remainder of the project.

Plan development consists of the following steps:

- Assessment of problems and needs
- Identification of project goals and objectives
- Identification of evaluation criteria
- Development of alternative plans/solutions
- Selection of a proposed plan

The first two steps are accomplished through public meetings, neighborhood association meetings, and traffic committee meetings. The County proposes solutions based on this citizen input and sound engineering principles. Possible solutions and their impacts are evaluated by the neighborhood traffic committee, county departments, and other affected agencies.

5. Ballot

To forward the project to Board of County Commissioners action (step 6), approval from households, businesses, and non-resident property owners within a defined ballot area must be obtained via a confidential mail ballot administered by the county.

The ballot area includes all properties located on the project street and on adjacent local service streets that either 1) are within an area approximately 1 block from the project, or 2) experience a traffic volume increase that is at least 75 percent of the maximum acceptable increase (as determined by the traffic committee during step 4).

A simple majority (50% plus 1) of those ballots that are returned must be in favor of the project for it to proceed to Board of County Commissioners action.

Each household, business, and nonresident property owner is entitled to one ballot.

6. Board of County Commissioners Action

Based on the project evaluation and a positive ballot, county staff then prepares a report with recommendations and forwards to the Board of County Commissioners for action. This report outlines the process followed, includes the project findings, and states the reasons for the recommendations. TMAC members also receive a copy of the staff report to the Board of County Commissioners.

If a project does not obtain the required ballot approval, it is not forwarded to TMAC or to the Board of County Commissioners.

7. Design and Construction

Final design and construction is administered by the County's Public Works Department and is generally completed, depending on weather, within 12 months after the ballot.

8. Monitoring

The Clark County Public Works Department monitors constructed devices, and is responsible for the physical appearance of the project, traffic control devices.

9. Follow-Up Evaluation

Within 3 to 5 years after construction of a Speed Bump Program project, the county conducts a follow-up evaluation to determine if the project's goals and objectives continue to be met. This evaluation may entail traffic studies of volumes, speeds, and accidents, as well as public opinion surveys.

Point Assignment for Speed Bump Requests

The following information is used to develop a numerical score for each Speed Bump Program project request. Scores are used to rank requests on a countywide basis. A high ranking, available budget, and other factors are used to determine which projects will proceed to the petition-to-study stage.

1. Traffic Volume

Average daily volume (on the segment of the project street having the highest volume), divided by 100.

Thirty (30) points maximum score.

2. Speed

Percent of vehicles over the speed limit (on the segment of the project street having the highest percentage over the limit), divided by 3.

Thirty (30) points maximum score.

3. Accidents

Accident rate over 3 consecutive years (accidents per million vehicle miles traveled).

Ten (10) points maximum score.

4. Schools

Five (5) points for each private or public school on the subject street or within a school's established walking area.

5. Other Pedestrian Areas

Up to five (5) points for each individual pedestrian-oriented facility, such as elderly housing or a park on the subject street.

For pedestrian-oriented facilities grouped together on the subject street, up to five (5) points for the group.

Ten (10) points maximum score.

Typical Project Timeframe

The following timeframe for the steps involved in a typical Speed Bump Program project is based on best-case conditions. Generally, four to five projects are undertaken concurrently.

Plan development (step 4) may take longer than estimated.

Project Requests . . . . . ongoing

Preliminary Review within 6 months of request

Priority Ranking . . . . . July/August

Petition-to-Study . . . . . 2 1/2 months

Plan Development . . . . . 1 to 5 months

Ballot . . . . . 1-1/2 months

County Commissioner Action . . . . . 1 month

Design . . . . . 1 to 5 months

Construction . . . . . 2 to 4 months

Monitoring . . . . . ongoing

Follow-Up Evaluation . . . . . within 3-5 years

GENERAL STANDARDS

This section prescribes standards and guidelines for the application of speed bumps in the public right-of-way on streets classified as either "local access" or "neighborhood access" class streets as defined in the Transportation Element of the Comprehensive Plan. The use of speed bumps on streets of other classification is currently not allowed.

Specific standards for Local Speed Bumps and Neighborhood Speed Bumps follow this section. Refer to Appendix A for proposed revisions to the Traffic Manual.

Function and Authority

Speed bumps are traffic management devices used for lowering the speed of motor vehicles along specific street sections. Speed bumps should be used only in urban areas and when justified by field studies.

Speed bumps shall be placed only by the authority of the County Engineer in accordance with Chapter 12 of the Clark County Code.

The installation of an unauthorized speed bump by a private organization or individual is unlawful according to Clark County Code.

Standardization of Application

Through the strict adherence to standards and guidelines outlined in this section, any given speed bump installation will be equally recognizable and require the same action on the part of the motorists regardless where it is encountered. Unique, "non-standard" situations may warrant unique treatment where justifiable based on a comprehensive engineering evaluation and approval by the County Engineer.

Speed bumps should be installed only for the specific purpose prescribed for in this section.

The application of speed bumps on county streets shall ordinarily be made in accordance with the criteria set forth in this section. However, as with other control devices, engineering judgment is essential to the proper use of speed bumps. Traffic engineering studies may indicate that speed bumps would be unnecessary or unsafe at certain locations. Data obtained from traffic engineering studies of physical and traffic related factors should be used in determining where speed bumps are appropriate.

Types of Speed Bumps

There are two types of speed bumps that have been adopted for use by Clark County:

- Local Speed Bump - For use primarily on lower volume local access streets as defined in the Transportation Element of the Comprehensive Plan.

- Neighborhood Speed Bump - For use on both neighborhood access streets and higher volume and speed local access streets as defined in the Transportation Element of the Comprehensive Plan.

Generalized Standards and Guidelines

The following are general standards and guidelines that apply to all speed bump applications. There may be situations which do not meet all criteria.

Grade - Speed bumps may be installed on street sections with a grade equal to or less than five percent. The installation of speed bumps on street sections with a grade greater than five percent within 50 feet of a bump location must be based on an engineering evaluation to assure that the installation will not create inappropriate risks to traffic safety.

Proximity to Curve - Prior to placing speed bumps along horizontal roadway curvature, an engineering evaluation should be conducted to assure that the speed bump installation in conjunction with the design speed of the curve(s) will accommodate safe vehicle passage. In addition, speeds bumps and/or speed bump warning signs should be placed in such a manner as to be clearly visible by approaching motorists according to MUTCD guidelines for visibility and reaction times.

Street Condition - The Maintenance and Operations Division of Public Works should inspect all streets prior to any proposed bump construction. The Maintenance and Operations Division of Public Works will determine if the existing street pavement conditions are adequate to support the impact loads caused by the bumps and if any pavement maintenance is required. If it is determined that improvements or maintenance is required, that work should be completed before bumps are constructed.

Curbs - Speed bumps may be installed on streets without curbs. However, in order to avoid potential circumnavigation around bumps at location without curbs, precautions, such as the installation of road side delineators, may need to be taken.

Driveways - Construction of speed bumps at a driveway location should be avoided where possible to reduce potential vehicle conflict.

Parking - No special parking removal is required on or near speed bumps.

Diversion Potential - Adjacent streets, identified by the engineer, as having potential for being impacted by vehicle diversion from the street being treated with speed-bumps should be monitored.

Spacing - Speeds bumps installed in series should be spaced according to an engineering evaluation of the physical street section as well as traffic operations data. Typically, speed bumps are spaced at between 300 and 600 feet apart.

Utilities - Speed bumps should be located in such a way as to avoid conflict with underground utility access to boxes, vaults and sewers. Speed bumps should be located no closer than 15 feet to any sewer manhole.

Construction and Maintenance

Construction - Speed bumps may be constructed by the Maintenance and Operations Division of Public Works or by a private contractor per the appropriate Standard Plan as approved by the County Engineer.

Construction Tolerances - Speed bumps must be constructed per the appropriate Standard Plan within a tolerance of +/- 0.5-inches in height.

Road/Utility Work - Any speed bump, including any associated pavement markings or signage, that is damaged by road or utility work shall be repaired to the original condition by the utility agency responsible for the damage.

Maintenance - Speed bumps shall be maintained by the Maintenance and Operations Division of Public Works.

Monitoring - The Maintenance and Operations Division of Public Works will monitor speed bumps as well as associated signing and markings for necessary maintenance. In addition, while under development and research, speed bumps will be monitored by Transportation Division staff to observe and evaluate wear and maintenance requirements.

LOCAL SPEED BUMP

The following section outlines the standards for Local Speed Bumps. Refer to Appendix A for proposed revisions to the Traffic Manual.

Application of Local Speed Bump

Local speed bumps are limited for use on local access streets only, as defined in the in the Transportation Element of the Comprehensive Plan.

Local bumps should not be used on street sections with a posted speed limit of less than 25 mph.

Local speed bumps are most appropriate for street sections with an 85th percentile speed between 25 mph and 35 mph.

For street sections with 85th percentile speeds in excess of 35 mph, local speed bumps may be inappropriate. The provision of local bumps on street sections with 85th percentile speeds greater than 35 mph should be based on careful evaluation of the street section, land-use, traffic type, traffic volumes, etc.

Design and Placement

The 14-foot long vertical cross-section of the local speed bump, measured in the direction of traffic flow, shall be a parabolic curve with a maximum height of three inches at the mid-point, and be 14 feet in length as detailed in the standard plans for local speed bumps.

Local speed bumps shall be accompanied by appropriate signing and pavement markings as detailed in the standard plans for local speed bumps.

Where possible, local speed bumps should be located at least 60 feet from the closest perpendicular extension of an intersecting street curb or pavement edge line.

NEIGHBORHOOD SPEED BUMP

The following section outlines the standards for Neighborhood Speed Bumps. Refer to Appendix A for proposed revisions to the Traffic Manual.

Application of Neighborhood Speed Bump

Neighborhood speed bumps are limited for use on local access streets and neighborhood access streets only, as described in the Transportation Element of the Comprehensive Plan.

Neighborhood bumps should not be used on street sections with a posted speed limit of less than 30 mph.

Neighborhood speed bumps are most appropriate for street sections with 85th percentile speeds between 35 and 45 mph.

The provision of Neighborhood speed bumps on street sections with 85th percentile speeds greater than 45 mph should be based on careful evaluation of the street section, land-use, traffic type, traffic volumes, etc.

Design and Placement

The 22-foot long vertical cross-section of the Neighborhood speed bump, measured in the direction of traffic flow, shall consist of a 10 foot horizontal platform, three inches in height which transitions at both ends to existing pavement level by way of six-foot parabolic curves, as detailed in the standard plan for Neighborhood speed bumps.

Neighborhood speed bumps shall be accompanied by appropriate signing and pavement markings as detailed in the standard plans for Neighborhood speed bumps.

Where possible, Neighborhood bumps should be located at least 100 feet from the closest intersecting curb or pavement edge line.

PROPOSED INITIAL PROJECT

The Public Works Department is proposing an initial project for the Speed Bump Program. This initial project is located on NE 139th Avenue, between NE 9th Street and NE 18th Street.

The department has been working with the neighborhood for over a year to solve the problem of excess vehicle speeds. This work has included intensive enforcement, stop signs, and turn restrictions. None of these methods has worked. The neighborhood has expressed a desire to participate in a speed bump program, including securing a petition with over fifty-one percent (51%) of the residents support.

Characteristics

NE 139th Avenue is a 40-foot-wide residential street with houses facing and driveways entering directly onto the roadway. It is straight and has only sparsely parked vehicles. These conditions create the "feel" of a high-speed street.

Currently, NE 139th Avenue provides the most direct access to NE 18th Street for the neighborhood south of NE 9th Street, including Hearthwood elementary school. Roadway system plans call for NE 9th Street be extended across an airplane taxiway to reach NE 136th Avenue, but it is unlikely this will happen any time soon.

A direct arterial route has been constructed between NE 18th Street and SE Mill Plain Boulevard. However, some motorists continue to use NE 139th Avenue as the arterial route.

Study Area and Design Standards

The proposed study area boundaries are NE 18th Street on the north, NE 141st Avenue on the east, NE 9th Street on the south, and NE 139th Avenue on the west.

The design standards proposed for this project are those outlined in this report and included in Appendix A. Local Speed Bumps, which are 14 foot in width, will be spaced from 300 feet to 600 feet apart.

Project costs

The test area on NE 139th Avenue is approximately 2,600 feet in length and will require from five to seven speed bumps. Each installation costs approximately $2,000. This brings the total costs to between $10,000 to $14,000. Funding for this project is available in un-programmed funds in the 1994 Six-Year Transportation Improvement Program.

Measures of Effectiveness

The following measures will be used to determine the effectiveness of the test project.

1. Before and After speed studies on NE 139th Avenue.
2. Before and After traffic counts on NE 139th Avenue and NE 141st Avenue.
3. Percentage increase in traffic on NE 141st Avenue, if any.
4. Accident rate experience.
5. Acceptance to the residents along NE 139th Avenue.
6. Effect on emergency vehicles and school busses that use the route.

Conclusions of Study

1. Did speeds decrease as anticipated?

2. Did traffic volumes on NE 139th Avenue change?

3. Did traffic volumes on NE 141st Avenue increase?

4. Were accidents attributable to the speed bumps?

5. Were the speed bumps acceptable to the residents, especially those adjacent to the speed bumps?

6. Were the speed bumps acceptable to emergency vehicles and school buses?

7. Should the county invest funds in continuing the program, and, if so, at what level?

CITIZEN & AGENCY REVIEW

The Traffic Management Advisory Committee (TMAC) will review requests submitted under Speed Bump Program and provide project and funding recommendations for consideration by the County Engineer.

TMAC is a diverse group composed of staff from Public Works, Community Development, Prosecutor's Office, Sheriff's Office, a representative from the school district, and four citizen representatives.

County staff will be responsible for working with the Neighborhood Associations and residents of the project area to obtain and present project information.

APPENDIX A, TRAFFIC MANUAL

Clark County, Washington
Department of Public Works

March 10, 1994

TRAFFIC MANUAL

CHAPTER (___) - SPEED BUMPS

(___)-00 - Table of Contents
(___)-01 - General Standards
(___)-02 - Local Speed Bumps
(___)-03 - Arterial Speed Bumps

CHAPTER (___)

TABLE OF CONTENTS

SPEED BUMPS

Introduction and General Standards 01

01.1 Function of Speed Bumps

Speed bumps are traffic management devices used for lowering the speed of motor vehicles along specific street sections. Speed bumps should be used only when justified by field studies.

01.2 Scope Speed Bump Standards

This chapter prescribes standards and guidelines for the application of speed bumps in the public right-of-way on streets classified as either "local access" or "neighborhood access" streets, as defined in the Comprehensive Plan, Volume 3, Transportation Element, and Clark County Road Standards. The use of speed bumps on streets of other classification is currently not allowed. Standards for Local Speed Bumps are found in Section 2.1. Standards for Neighborhood Speed Bumps are found in Section 3.1. Even if the speed bump criteria are met, their installation is not mandatory and the use of sound engineering judgment is required.

01.3 Legal Authority

Speed bumps shall be placed only by the authority of the **County Engineer** in accordance with Chapter 12 of the Clark County Code.

The installation of an unauthorized speed bump by a private organization or individual is unlawful.

01.4 Standardization of Application

Through the strict adherence to standards and guidelines outlined in this manual, any given speed bump installation will be equally recognizable and recquire the same action on the part of the motorists regardless of where it is encountered. Unique, "non-standard" situations may warrant unique treatment where justifiable based on a comprehensive engineering evaluation and approval by the **County Engineer.**

Speed bumps should be installed only for the specific purpose prescribed for in this manual.

The application of speed bumps on County streets shall ordinarily be made in accordance with the criteria set forth in this manual. However, as with other traffic control devices, engineering judgement is essential to the proper use of speed bumps. Traffic engineering studies may indicate that speed bumps would be unnecessary or unsafe at certain locations. Data obtained from traffic engineering studies of physical and traffic related factors should be used in determining where speed bumps are appropriate.

01.5 Types of Speed Bumps

There are two types of speed bumps that have been adopted for use by Clark County:

1. **Local Speed Bump** - For use primarily on lower volume local access streets, as defined in the Comprehensive Plan, Volume 3, Transportation Element, and Clark County Road Standards. See **Section 02 Local Speed Bump** for more detail.

2. **Neighborhood Speed Bump** - For use on both neighborhood access streets and higher volume and speed local access streets, as defined in the Comprehensive Plan, Volume 3, Transportation Element, and Clark County Road Standards. See **Section 03 Neighborhood Speed Bump** for more detail.

01.6 Generalized Standards and Guidelines

The following are general standards and guidelines that apply to all speed bump applications. There may be situations which do not meet all criteria.

A. GRADE - Speed bumps may be installed on street sections with a grade equal to, or less than 5-percent. The installation of speed bumps on street sections with a grade greater than 5-percent within 50 feet of a bump location must be based on an engineering evaluation to assure that the installation will not create inappropriate risks to traffic safety.

B. PROXIMITY TO CURVE - Prior to placing speed bumps along horizontal roadway curvature, an engineering evaluation should be conducted to assure that the speed bump installation in conjunction with the design speed of the curve(s) will accommodate safe vehicle passage. In addition, speeds bumps and/or speed bump warning signs should be placed in such a manner as to be clearly visible by approaching motorists according to MUTCD guidelines for visibility and reaction times.

C. STREET CONDITION - The Maintenance and Operations Division of Public Works should inspect all streets prior to any proposed bump construction. The Maintenance and Operations Division of Public Works will determine if the existing street pavement conditions are adequate to support the impact loads caused by the bumps and if any pavement maintenance is required. If it is determined that improvements or maintenance is required, that work should be completed before speed bumps are constructed.

D. CURBS - Speed bumps may be installed on streets without curbs. However, in order to avoid potential circumnavigation around bumps at location without curbs, precautions, such as the installation of road side delineators, may need to be taken.

E. DRIVEWAYS - Construction of speed bumps at a driveway location should be avoided where possible to reduce potential vehicle conflict.

F. PARKING - No special parking removal is required on or near speed bumps.

G. DIVERSION POTENTIAL - Adjacent streets, identified by the engineer, as having potential for being impacted by vehicle diversion from the street being treated with speed

bumps should be monitored.

H. SPACING - Speed bumps installed in series should be spaced according to an engineering evaluation of the physical street section as well as traffic operations data. Typically, speed bumps are spaced at between 300 and 600 feet apart.

I. UTILITIES - Speed bumps should be located in such a way as to avoid conflict with underground utility access to boxes, vaults and sewers. Speed bumps should be located no closer than 15 feet to any sewer manhole[1].

01.7 Construction and Maintenance of Speed Bumps

A. CONSTRUCTION - Speed bumps may be constructed by the Maintenance and Operations Division of Public Works or by a private contractor per the appropriate Standard Plan as approved by the County Engineer.

B. CONSTRUCTION TOLERANCES - Speed bumps must be constructed per the appropriate Standard Plan within a tolerance of +/- 0.5-inches in height.

C. ROAD/UTILITY WORK - Any speed bump, including any associated pavement markings or signage, that is damaged by road or utility work shall be repaired to the original condition by the utility agency responsible for the damage.

D. MAINTENANCE - Speed bumps shall be maintained by the Maintenance and Operations Division of Public Works.

E. MONITORING - The Maintenance and Operations Division of Public Works will monitor speed bumps as well as associated signing and markings for necessary maintenance. In addition, while under development and research, speed bumps will be monitored by Transportation Division staff to observe and evaluate wear and maintenance requirements.

[1]To avoid possible vibration to adjacent residences from large vehicles simultaneously impacting manhole and speed bump.

LOCAL SPEED BUMP 02

02.1 Application of Local Speed Bump

a. Local speed bumps are limited for use on local access streets only, as defined in the Comprehensive Plan, Volume 3, Transportation Element, and Clark County Road Standards.

b. Local bumps should not be used on street sections with an 85th percentile speed of less than 25 mph.

c. Local speed bumps are most appropriate for street sections with an 85th percentile speed between 25 mph and 35 mph.

d. For street sections with 85th percentile speeds in excess of 35 mph, local speed bumps may be inappropriate[2]. The provision of local bumps on street sections with 85th percentile speeds greater than 35 mph should be based on careful evaluation of the street section, land-use, traffic-type, traffic volumes, etc..

DESIGN

f. The 14-foot long vertical cross-section of the local speed bump, measured in the direction of traffic flow, shall be a parabolic curve with a maximum height of 3-inches at the mid-point, and be 14-feet in length as detailed in the standard plans for local speed bumps.

g. Local speed bumps shall be accompanied by appropriate signing and pavement markings as detailed in the standard plans for local speed bumps.

PLACEMENT

h. Where possible, local speed bumps should be located at least 60 feet from the closest perpendicular extension of an intersecting street curb or pavement edge line.[3]

---

[2]Eighty-fifth percentile speed in an excellent indicator of street character. The application of a speed reduction device, which lowers the 85th percentile speed at device locations, more than 15 miles per hour will tend to create a pronounced "sine wave" type velocity profile. For many higher volume streets, such a velocity profile may be inappropriate both with regards to traffic safety and/or the noise of acceleration and deceleration. Since research has indicated that local speeds bumps reduce 85th percentile speeds to approximate 20 mph, the use of local speed bumps on streets with 85th percentile speed in excess of 35 mph may be inappropriate.

[3]The placement of local speed bumps at a minimum of 60 feet from the closest intersecting curb or pavement line will assure that all bump related pavement markings remain outside the intersection and ensure that vehicles turning from the side street will engage the bump in a perpendicular fashion.

NEIGHBORHOOD SPEED BUMP 03

03.1 Application of Neighborhood Speed Bump

a. Neighborhood speed bumps are limited for use on local access streets and neighborhood access streets only, as described in the Comprehensive Plan, Volume 3, Transportation Element, and Clark County Road Standards.
b. Neighborhood bumps should not be used on street sections with an 85th percentile speeds less than 30 mph[4].
c. Neighborhood speed bumps are most appropriate for street sections with an 85th percentile speed between 35 mph and 45 mph.
d. The provision of neighborhood speed bumps on street sections with 85th percentile speeds greater than 45 mph should be based on careful evaluation of the street section, land-use, traffic-type, traffic volumes, etc.[5].

DESIGN

f. The 22-foot long vertical cross-section of the local speed bump, measured in the direction of traffic flow, shall consist of a 10 foot horizontal platform, 3-inches in height which transitions at both ends to existing pavement level by way of 6-foot parabolic curves, as detailed in the standard plan for neighborhood speed bumps.
g. Neighborhood speed bumps shall be accompanied by appropriate signing and pavement markings as detailed in the standard plans for local speed bumps.

PLACEMENT

h. Where possible, neighborhood bumps should be located at least 100 feet from the closest intersecting curb or pavement edge line.[6]

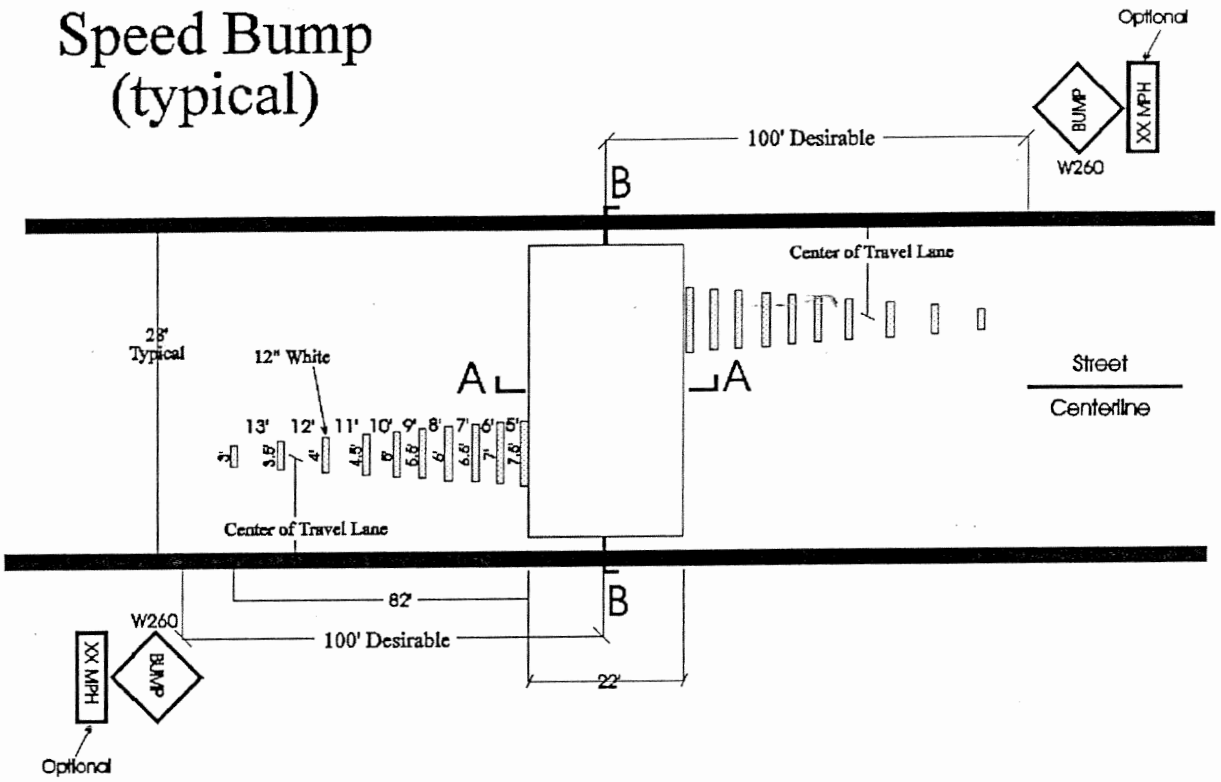
---

[4]Research has indicated that the neighborhood speed bump is effective in reducing 85th percentile speeds to approximately 30 mph. The use of neighborhood speed bumps on street section with 85th percentile speeds less than 30 mph would be ineffective.

[5]Eighty-fifth percentile speed in an excellent indicator of street character. The application of a speed reduction device, which lowers the 85th percentile speed at device locations, more than 15 miles per hour will tend to create a pronounced "sine wave" type velocity profile. For many higher volume streets, such a velocity profile may be inappropriate both with regards to traffic safety and/or the noise of acceleration and deceleration. Since research has indicated that local speeds bumps reduce 85th percentile speeds to approximate 30 mph, the use of neighborhoodspeed bumps on streets with 85th percentile speed in excess of 45 mph may be inappropriate.

[6]The placement of neighborhood speed bumps at a minimum of 60 feet from the closest intersecting curb or pavement line will assure that all bump related pavement markings remain outside the intersection and ensure that vehicles turning from the side street will engage the bump in a perpendicular fashion.

Speed Bump (typical)



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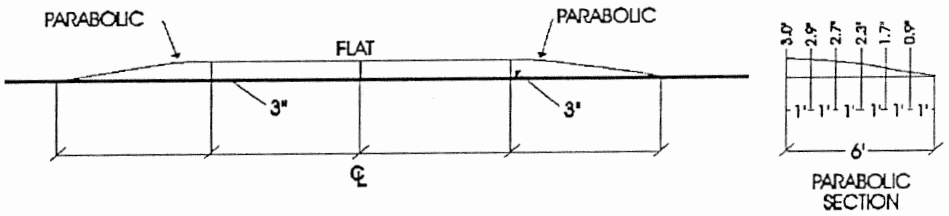

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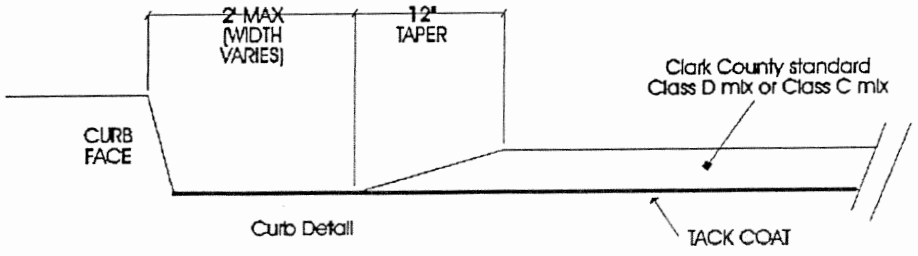

DEPARTMENT OF PUBLIC WORKS

TITLE OF STANDARD PLAN
NEIGHBORHOOD BUMP FOR IMPROVED STREETS

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Clark County Logo
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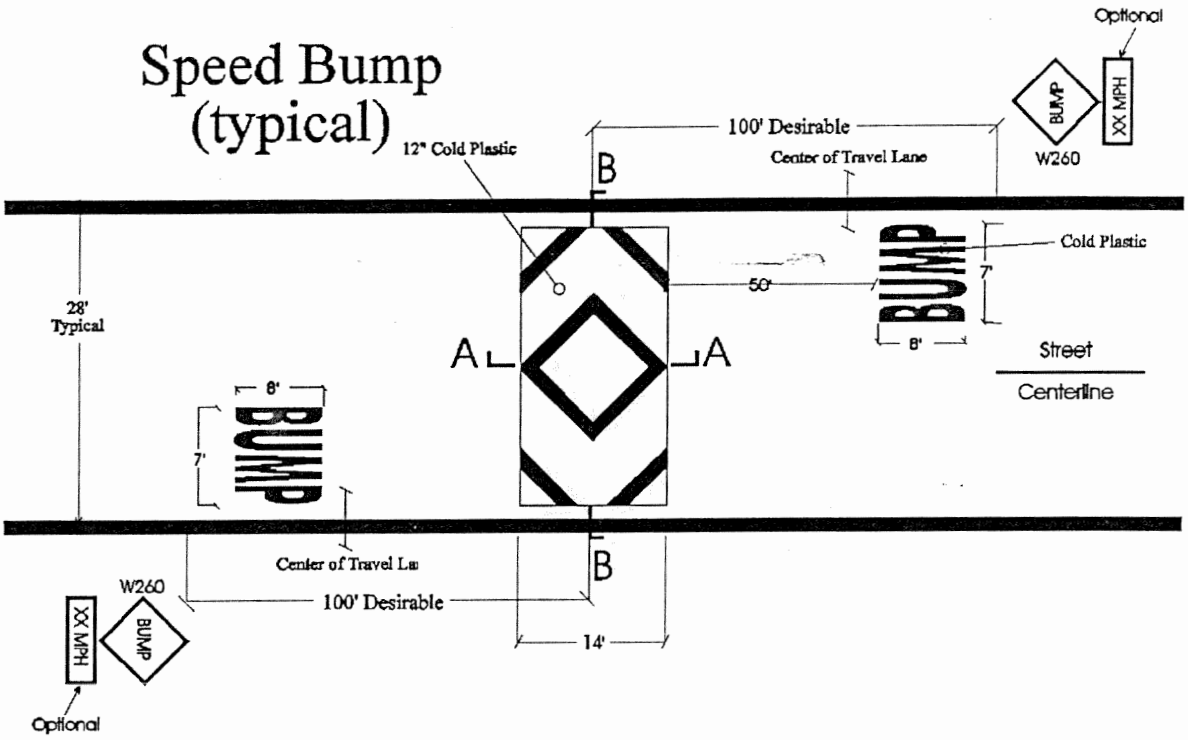
Speed Bump (typical)



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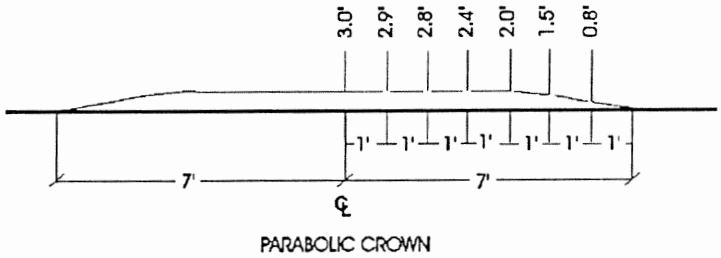
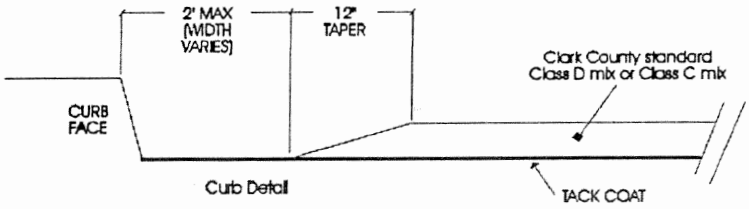


PARABOLIC CROWN

Section B-B



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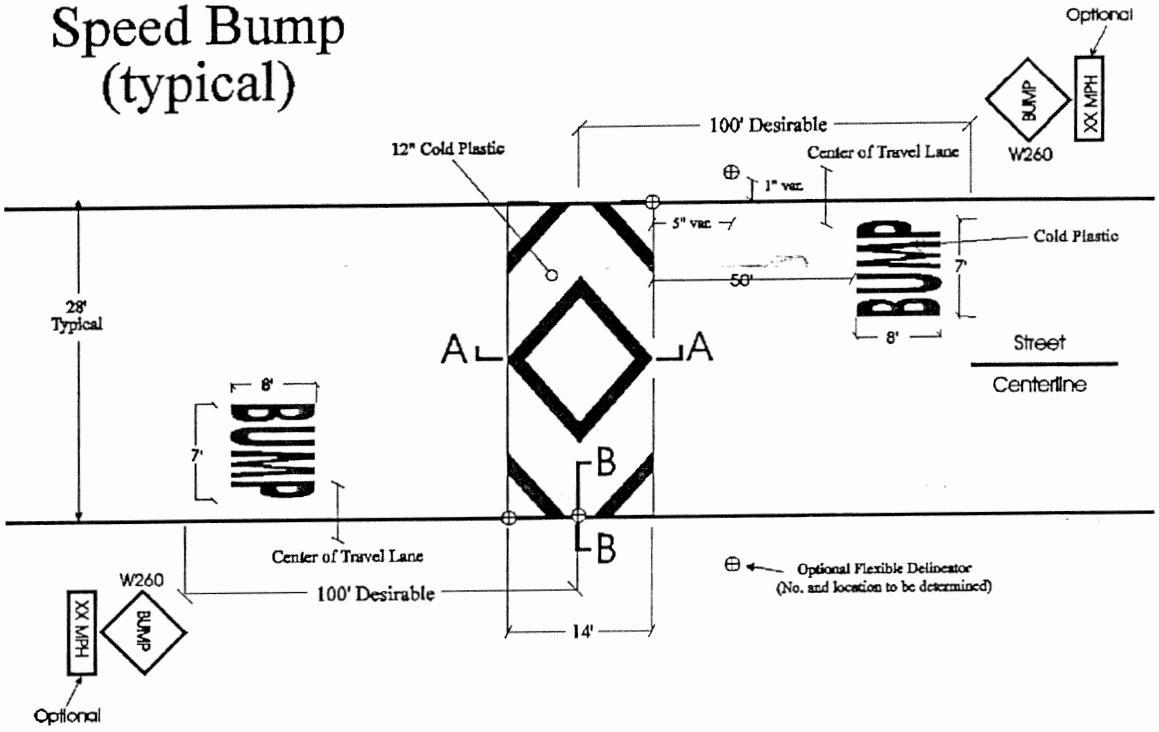
Speed Bump (typical)



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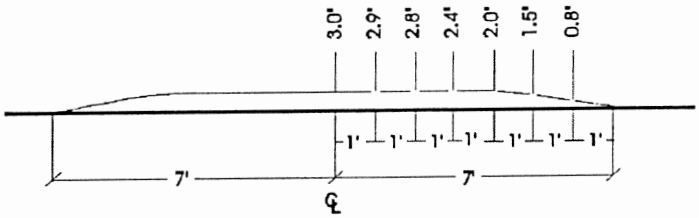

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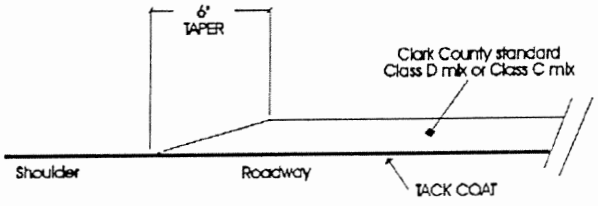
Section B-B



Shoulder Detail

DEPARTMENT OF PUBLIC WORKS

TITLE OF STANDARD PLAN
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1999 Clark County
Neighborhood Traffic Calming Devices

1999 TRANSPORTATION STANDARDS

Chapter 12.05 CCC
Adopted May 25, 1999

12.05.290 Urban Neighborhood Traffic Management

I. Purposes

Urban Neighborhood Traffic Management is intended to manage traffic speeds within residential neighborhoods and to discourage external traffic cutting through residential neighborhoods.

II. Applicability

The provisions of this section shall apply only to access roads within a development which meet one of the following conditions in the following districts: R1-5, R1-6, R1-7.5, R1-10, R1-20, R-12, R-18, R-22, R-30, R-43, OR-15, OR-18, OR-22, OR-30, OR-43, CR-1, CR-2, and MX:

A. Projected average daily trip of greater than 600 and less than 2000 motor vehicles and a sight distance in excess of 600 feet, or

B. Determined by the County Engineer, not his/her designee, that traffic calming measures and/or traffic calming devices are warranted.

The County Engineer may waive the requirements of this section for Type I and Type II applications where the conditions listed above will not occur.

III. Standards and Requirements

If the condition in Section 12.05.290.II occurs, traffic calming measures and/or traffic calming devices shall be required:

A. **Traffic Calming Measures**[1]

Traffic calming measures, such as "T" intersection, street trees, curvilinear streets, or entry treatments, shall be incorporated into the overall development design to manage traffic speeds.

B. **Traffic Calming Devices**[2]

Traffic calming devices, such as speed bump/hump and the devices shown in Appendix E, shall be installed.

12.05.300 Urban Transit Circulation Standards

New residential, commercial and industrial developments shall be reviewed with the participation of C-TRAN invited during the development review process under Chapter 18.600 CCC to ensure appropriate design and integration of transit facilities into the development.

12.05.400 Pedestrian / Bicycle Circulation Standards

Pedestrian and bicycle circulation facilities shall be designed to: (A) Provide safe, convenient and appropriate levels of access for pedestrians and bicyclists, and (B) Allow for unobstructed movements and access pursuant to the Americans with Disabilities Act, as amended.

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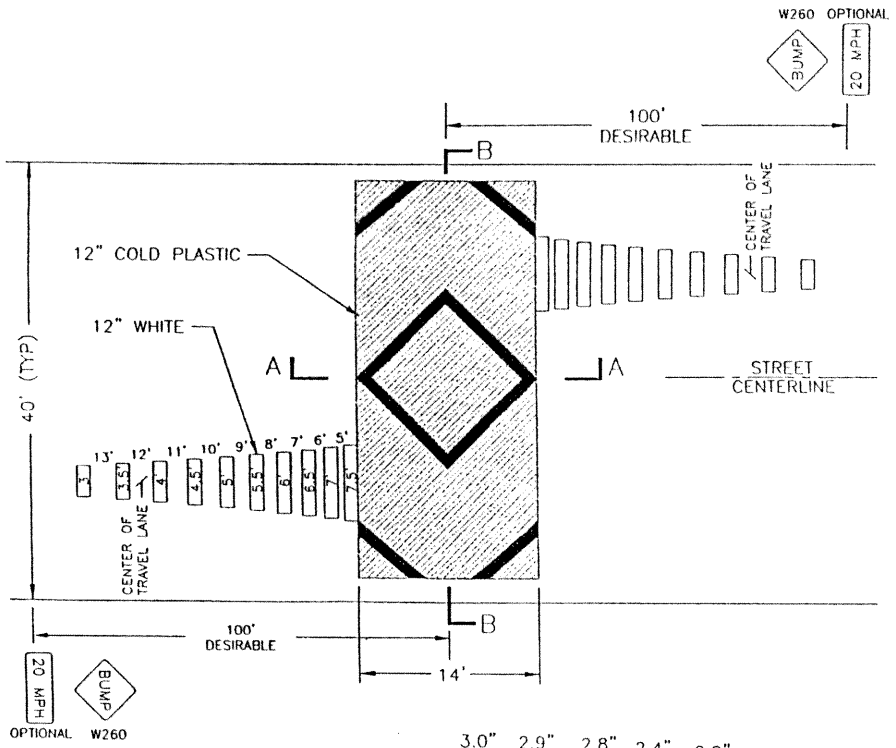
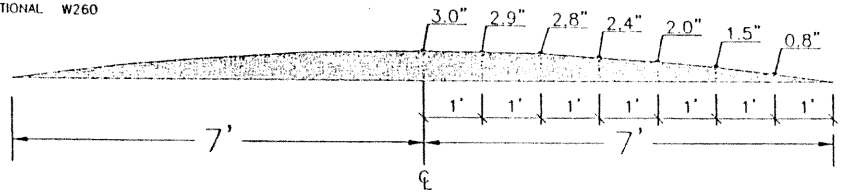
[1] See Section 12.05.030 for definition
[2] See Section 12.05.030 for definition

Appendix E

NEIGHBORHOOD TRAFFIC-CALMING DEVICES





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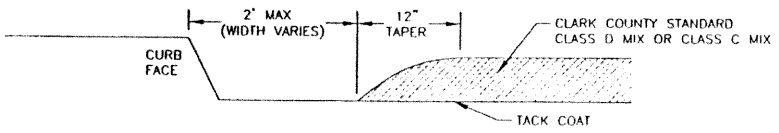

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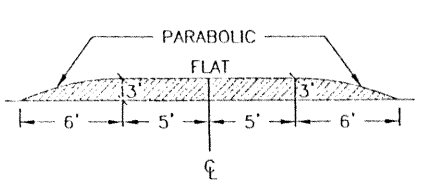

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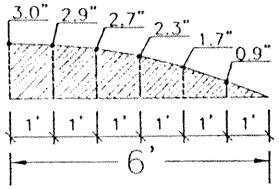

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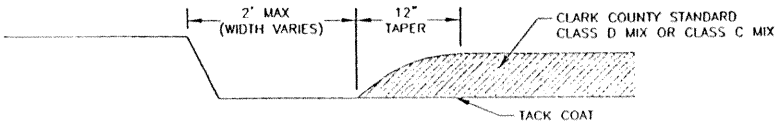

SECTION B–B

DRAWING *E1*

CLARK COUNTY WASHINGTON

TRANSPORTATION DIVISION

SPEED BUMP (TYPICAL)

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VERT.	*NA*
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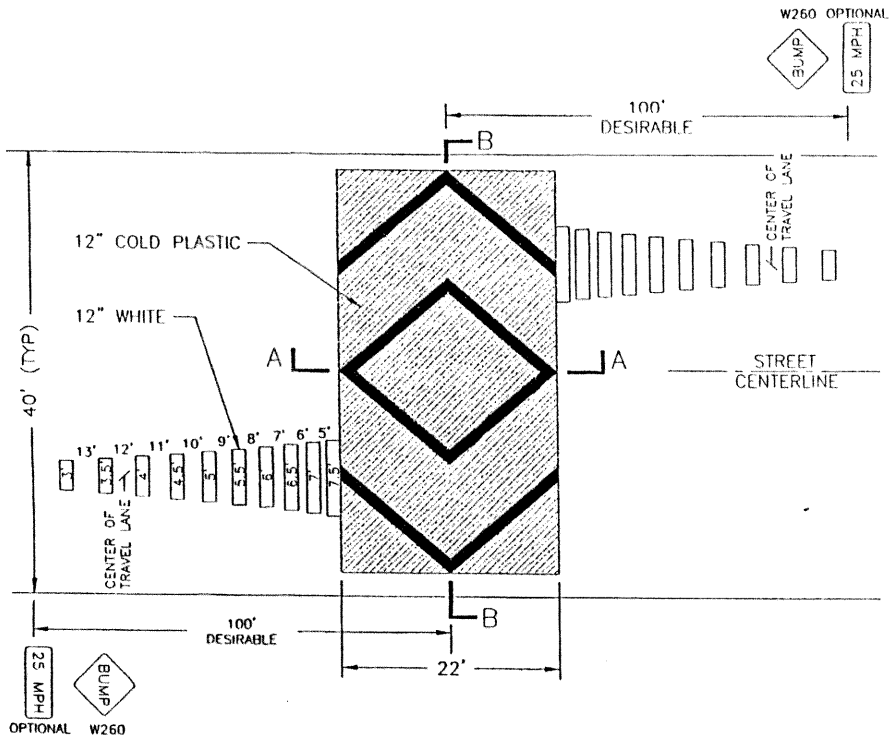

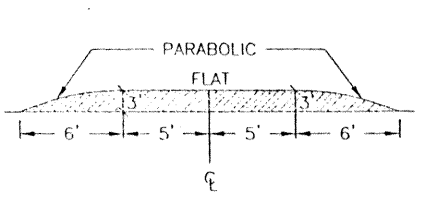

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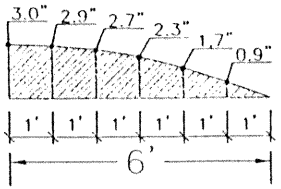

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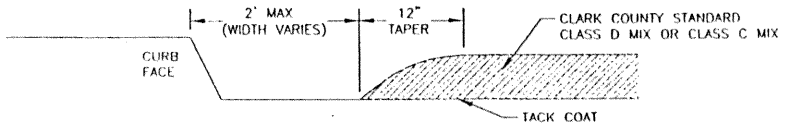

SECTION B–B

DRAWING *E2*

CLARK COUNTY WASHINGTON

TRANSPORTATION DIVISION

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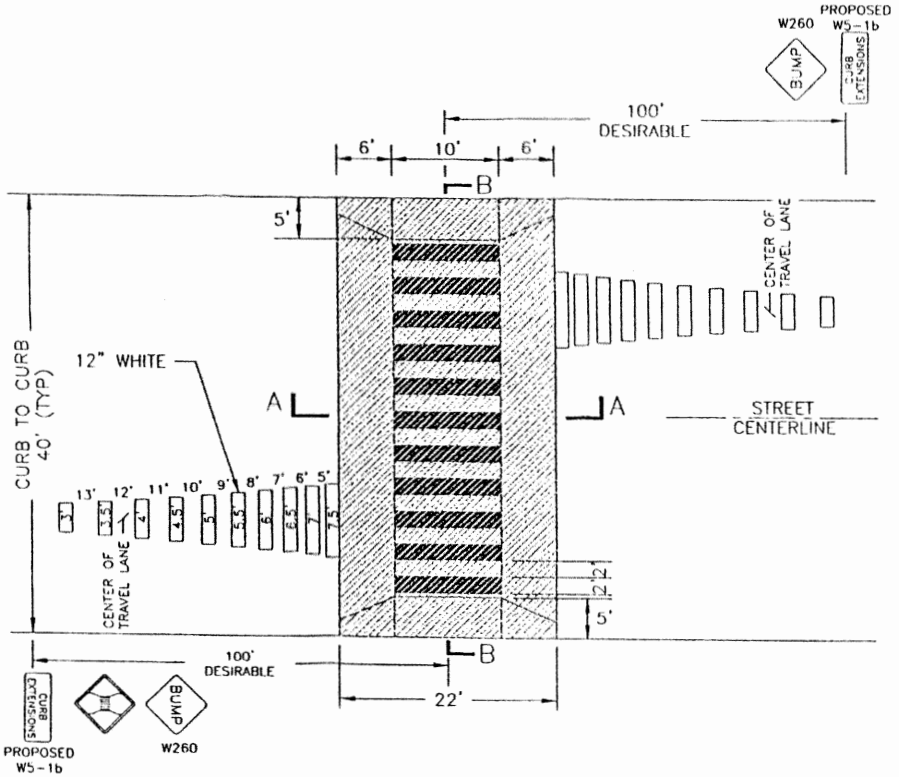

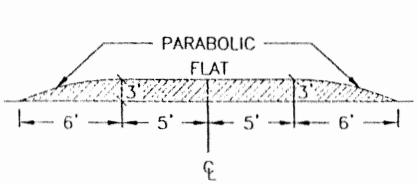

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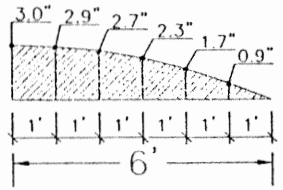

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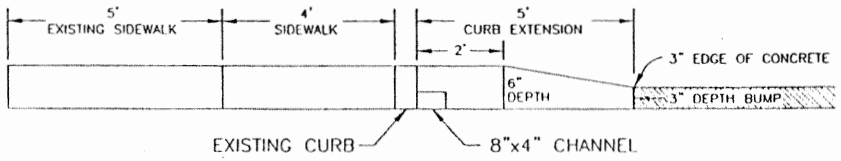

SECTION B–B

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CLARK COUNTY WASHINGTON

TRANSPORTATION DIVISION

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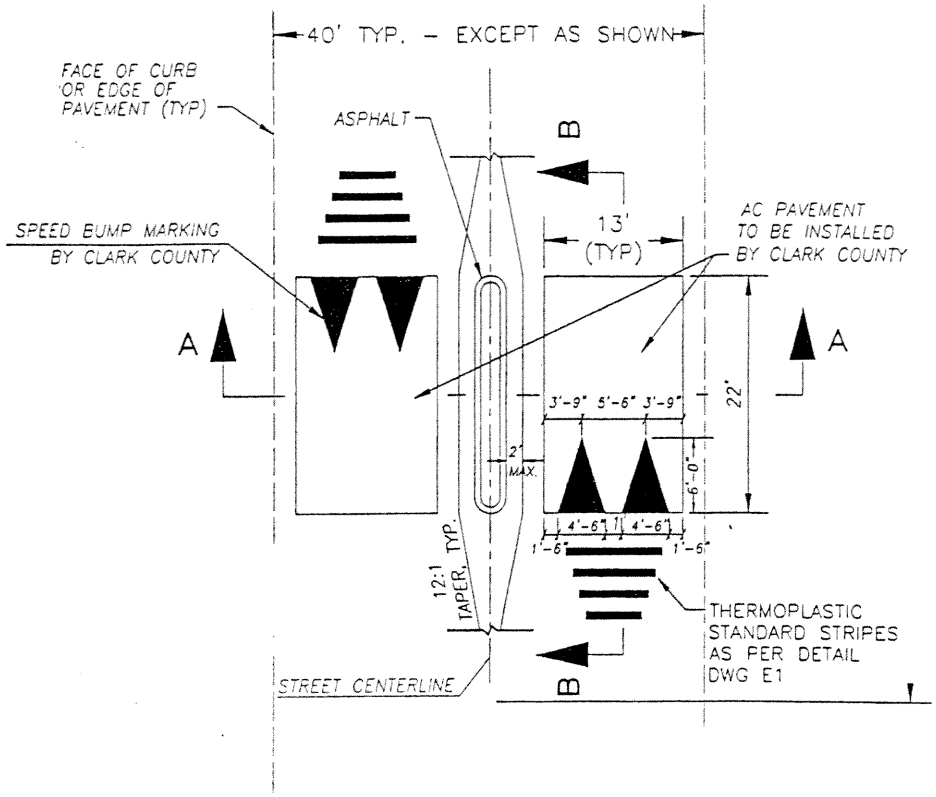
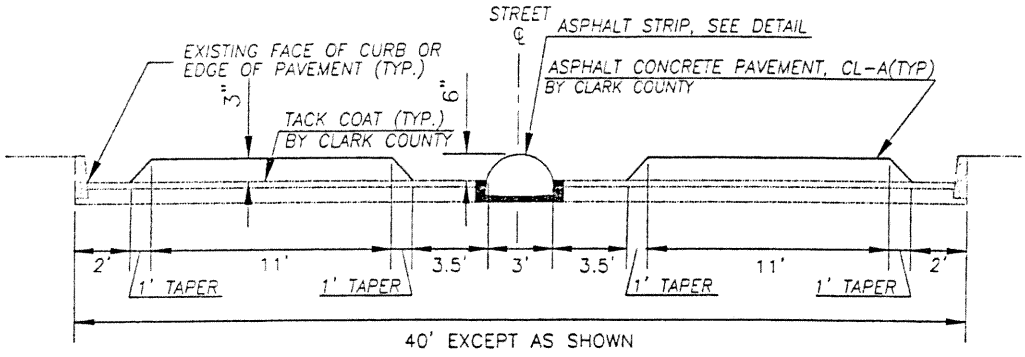
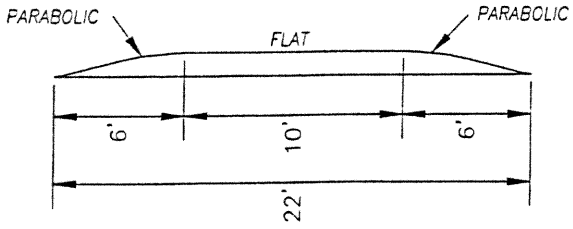
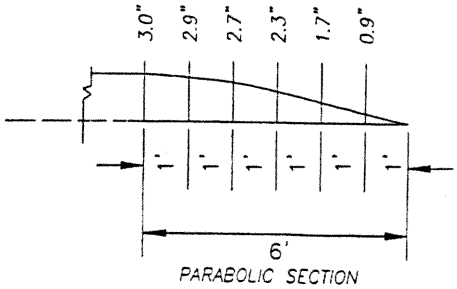
DATE 8/12/98



EMERGENCY VEHICLE SPEED BUMP DETAIL







DRAWING E4

CLARK COUNTY WASHINGTON

TRANSPORTATION DIVISION

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VERT.	NA
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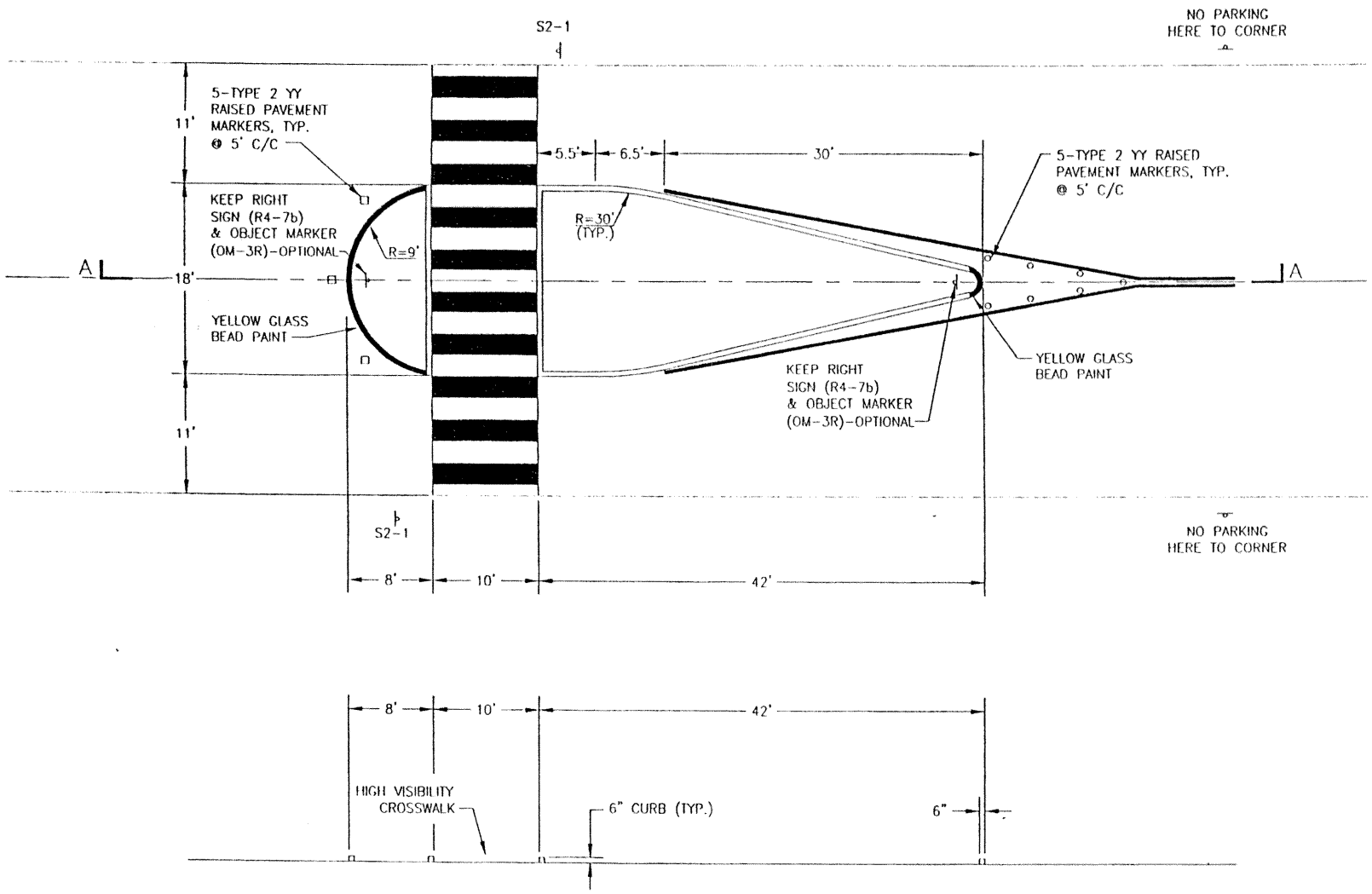

SECTION A–A

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CLARK COUNTY WASHINGTON

TRANSPORTATION DIVISION

MEDIAN SLOW POINT

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DRAWN KB

SCALE
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VERT. 1"=15'
DATE 8/12/98

Review of Existing Programs Memorandum

Clark County Neighborhood Traffic Management Program
Review of Existing Programs

PBS Engineering and Environmental Inc. (PBS) conducted research to assist Clark County in the development of a Neighborhood Traffic Management Program (NTMP). We have created a 19-question survey to capture the details of other agencies' NTMP. A copy of survey instrument can be found on Appendix 1.

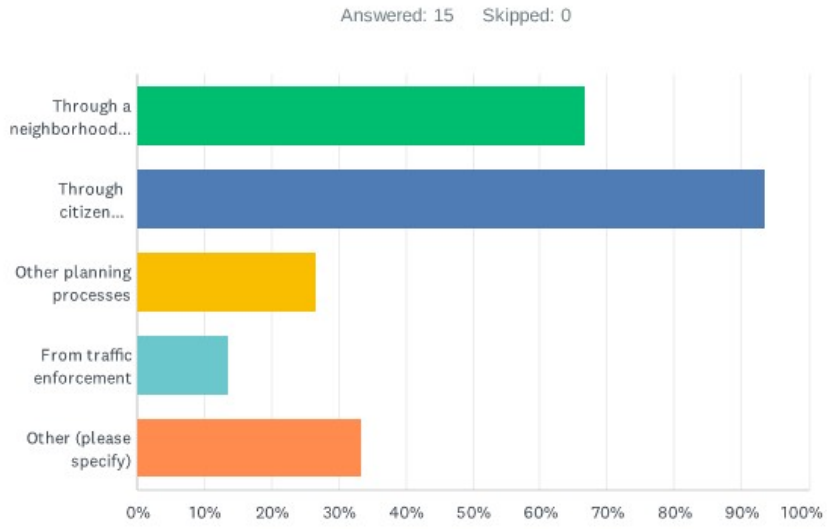
PBS will utilize best practices from survey respondents to develop an NTMP that will address the goals identified for the program.

Copies of the survey responses can be found in Appendix 2.

Results:

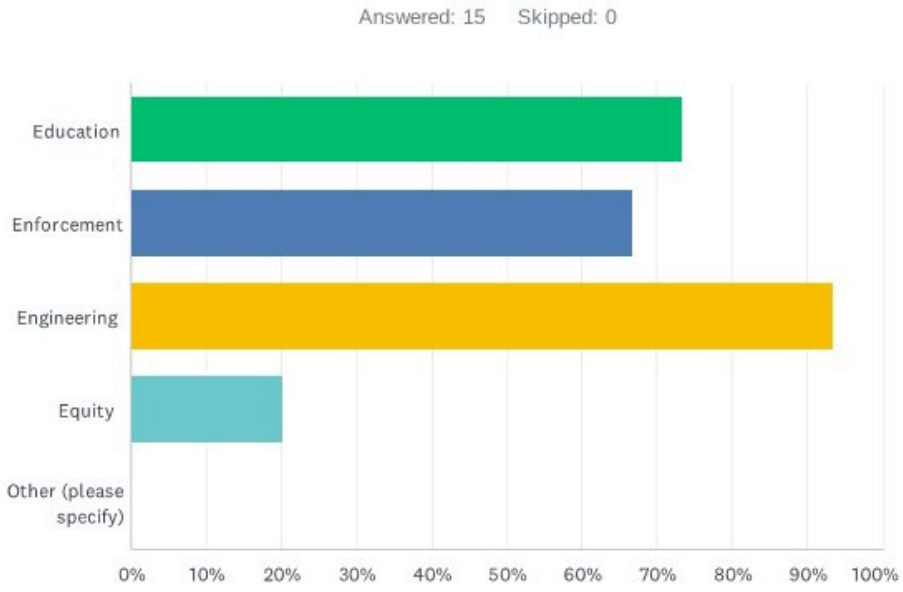
We received 15 responses, and have highlighted the most important details below:

- 1/3 of respondents indicated that they do not have a yearly budget dedicated to their NTMP efforts, and the average budget was $116,666. (The median was $100,000.)
- When asked to explain the request process, survey respondent indicated that most requests came through a citizen request (93%), with neighborhood associations coming in as the second most used process (67%).

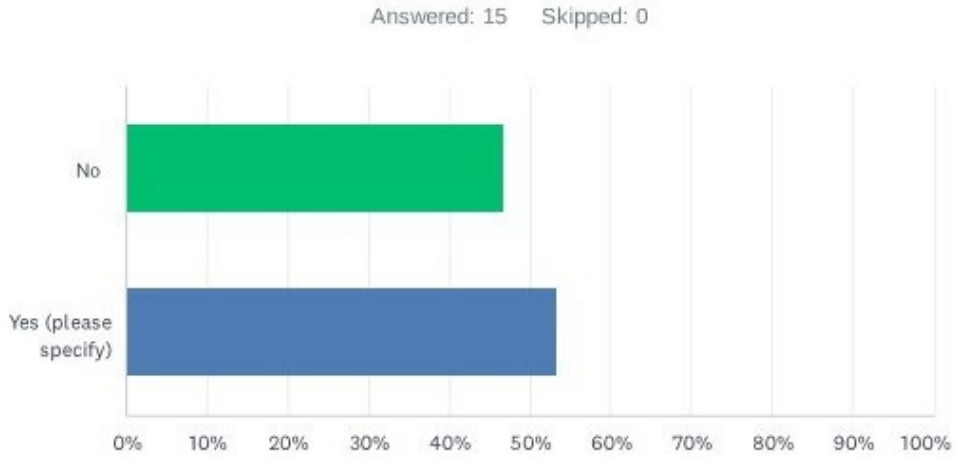


ANSWER CHOICES	RESPONSES	
Through a neighborhood association	66.67%	10
Through citizen requests	93.33%	14
Other planning processes	26.67%	4
From traffic enforcement	13.33%	2
Other (please specify)	33.33%	5
Total Respondents: 15		

- PBS asked how their program ensures equity for all neighborhoods. Most respondents indicated equity was not included in their program while others said each road/request is considered equally.
- Most processes are engineer-based (93%). Few programs are based on equity, but most respondents indicated they have plans to incorporate and prioritize this as a main pillar.



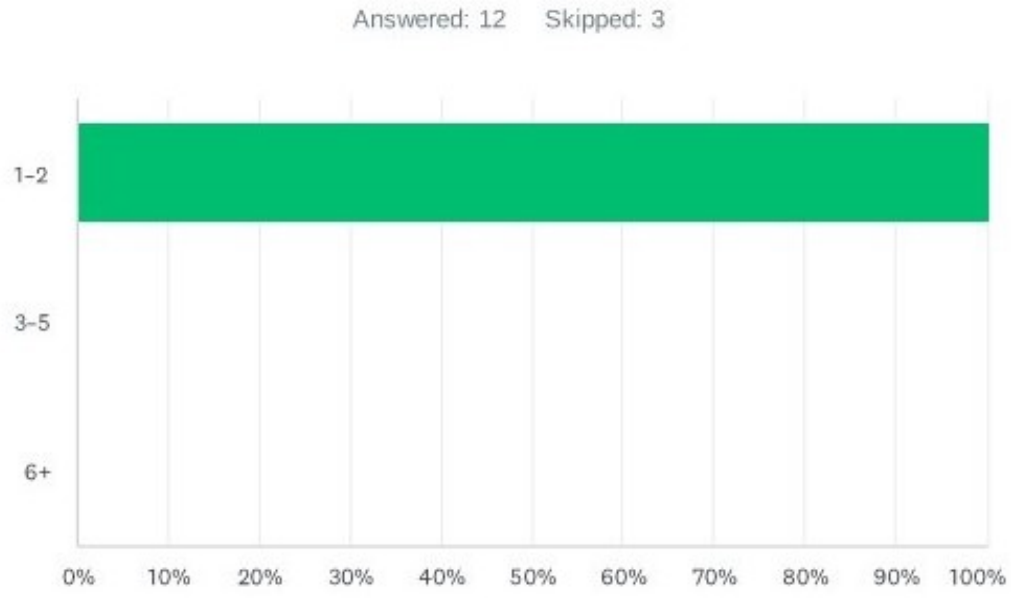
- 53% of the respondents indicated that their NTMP included a project prioritization methodology.



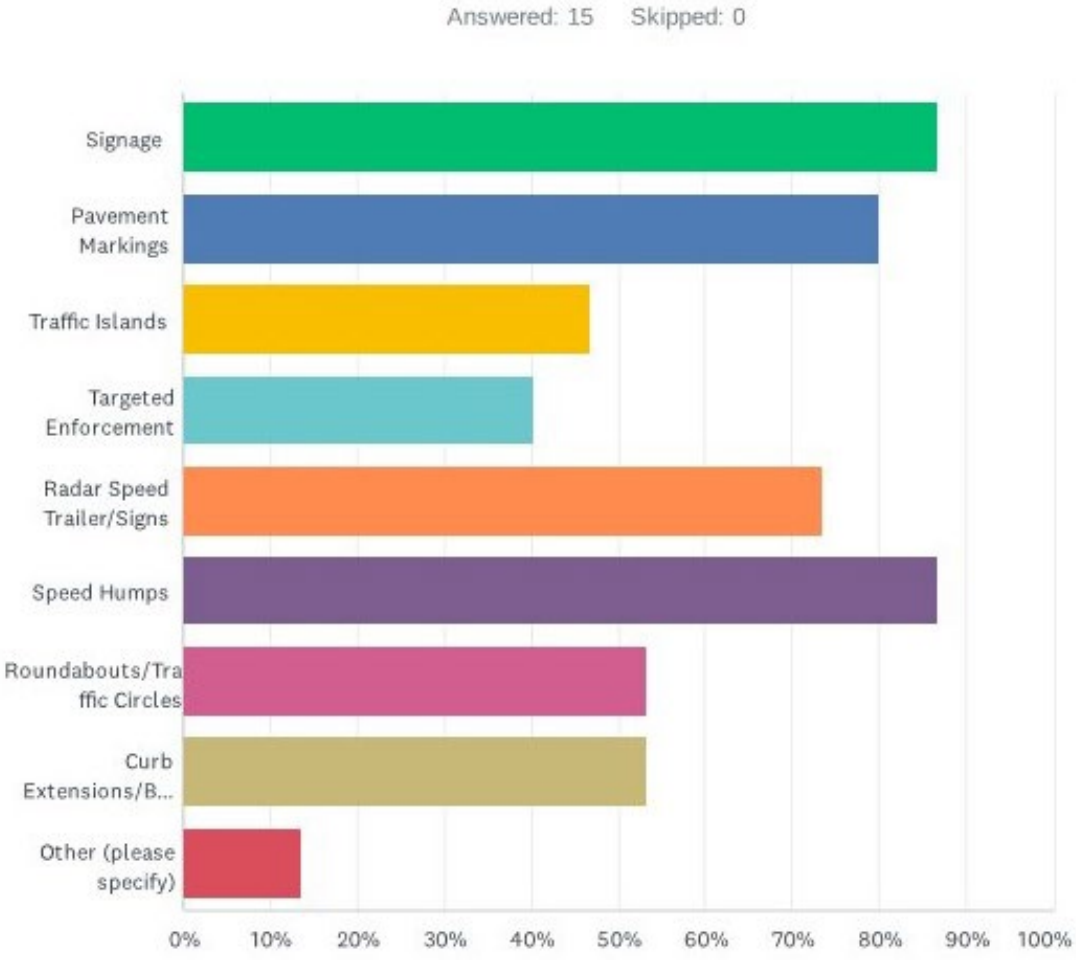
ANSWER CHOICES	RESPONSES	
No	46.67%	7
Yes (please specify)	53.33%	8
TOTAL		15

#	YES (PLEASE SPECIFY)	DATE
1	Again, we are still in the process, but we plan to prioritize based on census data (for equity), severity of speeding, number of users etc.	11/10/2021 8:52 AM
2	Projects are scored based on traffic volumes, travel speeds, crash history, presence of pedestrian facilities, and presence of schools or other pedestrian areas.	11/9/2021 2:35 PM
3	Project prioritization includes crash history, proximity to schools/parks, equity, and if there is pre-scheduled paving project that we can bundle the traffic calming in with.	11/9/2021 10:59 AM
4	points for speed, volume	11/5/2021 11:39 AM
5	The City completes an objective criteria scoring analysis on things such as presence of sidewalks, speeds, volumes, etc. and then a citizen committee reviews and scores the project on a more subjective set of criteria.	11/5/2021 10:32 AM
6	Evaluation matrix developed weighing a number of measures.	11/2/2021 8:27 PM
7	Based on speeds, collision, pedestrian centers, road type, but only when funded.	10/29/2021 1:00 PM
8	first come/first served	10/29/2021 8:42 AM

- The majority of those who participated in the survey indicated that their MTMP has 1-2 FTEs to facilitate the program.



- Participants indicated that they used the following tools/strategies to implement their traffic management programs:



Neighborhood Traffic Management Plan Questionnaire

Clark County is in the process of developing a Neighborhood Traffic Management Program (NTMP). The program will be a systemic approach to handling neighborhood traffic requests and applying the most appropriate traffic calming measures for each situation. We are currently gathering data and would appreciate your participation in the following survey to help us learn more about your traffic management/calming program. There are 17 questions and it is expected to take 15 minutes to complete.

We look forward to reviewing the information and materials you forward to us via the survey link. Thank you in advance for your time!

1. What is the name of your agency?

2. What is the yearly budget for your NTMP/calming program?

3. What are the typical funding sources for your NTMP/calming program?

4. How many full-time employees (FTE) are dedicated to the program?

- ○ 1–2
- ○ 3–5
- ○ 6+

5. What is the contact information for the program manager?

Name	
Email Address	
Phone Number	

6. Please provide a short description of your NTMP/calming program, as described in your budget

7. What program tools are used in your NTMP/calming program? Check all that apply.

- [ ] Signage
- [ ] Pavement Markings
- [ ] Traffic Islands
- [ ] Targeted Enforcement
- [ ] Radar Speed Trailer/Signs
- [ ] Speed Humps
- [ ] Roundabouts/Traffic Circles
- [ ] Curb Extensions/Bulb Outs
- [ ] Other (please specify)

8. Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

- ( ) No
- ( ) Yes (please specify)

9. Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

10. In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

- [ ] Through a neighborhood association
- [ ] Through citizen requests
- [ ] Other planning processes
- [ ] From traffic enforcement
- [ ] Other (please specify)

11. How does the program ensure equity for all neighborhoods?

12. Does the program include the following elements? Check all that apply.

- [ ] Education
- [ ] Enforcement
- [ ] Engineering
- [ ] Equity
- [ ] Other (please specify)

13. Is there a project prioritization methodology?

- ( ) No
- ( ) Yes (please specify)

14. How do you determine the projects that receive funding and the projects that have to wait for implementation?

15. Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

16. Can you please provide a copy of your NTMP application form?

Choose File | Choose File | No file chosen

17. Can you please provide a copy of the NTMP document?

Choose File | Choose File | No file chosen

Appendix 2: Survey Results

#1

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Thursday, October 28, 2021 3:53:56 PM
Last Modified:	Thursday, October 28, 2021 4:02:17 PM
Time Spent:	00:08:21
IP Address:	70.35.122.3

Page 1

Q1

What is the name of your agency?

City of Lakewood

Q2

What is the yearly budget for your NTMP/calming program?

$25,000

Q3

What are the typical funding sources for your NTMP/calming program?

Transportation Benefit District & General Fund

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Jon Howe**
Email Address	**JHowe@cityoflakewood.us**
Phone Number	**253-983-7847**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

The Neighborhood Traffic Calming program is designed to interact with neighborhood residents concerned with speeding and unsafe drivers. We utilize modern traffic calming methods in conjunction with resident input to effect change on driving habits through neighborhoods.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Yes. This program is primarily focused on local collector/residential roads. Minor arterials can be addressed where the road transits through neighborhoods. Such locations typically get radar feedback signs or mini-roundabouts.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

Our community is fairly diverse and we address each concern as they come up.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

No

Is there a project prioritization methodology?

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

we are able to conduct one project per year typically with the funding allocated for the program. If we have multiple requests, we look for the apparent worse offender neighborhood which is typically identified with speed studies.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes, we hold meetings with residents and then survey the neighborhood to determine the preference for potential traffic calming measures. We start small and build up to larger options depending on the results of each phase of implementation.

Q16

Respondent skipped this question

Can you please provide a copy of your NTMP application form?

Q17

Respondent skipped this question

Can you please provide a copy of the NTMP document?

#2

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Friday, October 29, 2021 5:35:23 AM
Last Modified:	Friday, October 29, 2021 5:42:38 AM
Time Spent:	00:07:15
IP Address:	74.112.48.2

Page 1

Q1

What is the name of your agency?

Edmonds

Q2

What is the yearly budget for your NTMP/calming program?

20000

Q3

What are the typical funding sources for your NTMP/calming program?

Radar feedback signs

Q4

1–2

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Bertrand Hauss**
Email Address	**bertrand.hauss@edmondswa.gov**
Phone Number	**425-754-5325**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

Started in 2016 and held on annual basis. The top 2 or 3 in evaluation are ones being funded (based on list of criterias includes in evaluation).

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Radar Speed Trailer/Signs,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
Speed, pedestrian conditions, proximity to pedestrian destinations, volumes

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

n/a

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

All sections of Edmonds are considered eligible.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Top in evaluation (based on total funding available / usually $20,000 but sometime more).

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

No

Q16

Can you please provide a copy of your NTMP application form?

Form.pdf (87.7KB)

Q17

Can you please provide a copy of the NTMP document?

Form3.pdf (157KB)

#3

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Friday, October 29, 2021 6:48:49 AM
Last Modified:	Friday, October 29, 2021 7:41:46 AM
Time Spent:	00:52:57
IP Address:	205.172.45.253

Page 1

Q1

What is the name of your agency?

City of Yakima

Q2

What is the yearly budget for your NTMP/calming program?

$35,000

Q3

What are the typical funding sources for your NTMP/calming program?

general fund through the maintenance budget

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Jay Kendall**
Email Address	**Jay.Kendall@yakimawa.gov**
Phone Number	**509.576.6443**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

Program to respond to citizens requesting traffic calming. Could be anything from enforcement, markings, speed humps, signing, etc.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Speed Humps

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Traffic calming is for residential streets.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

It is open to all residents, all neighborhoods. Available through our web site

Q12

Does the program include the following elements? Check all that apply.

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

Yes (please specify):
first come/first served

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Each request is evaluated for "warrants". Does the location warrant traffic calming measures

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

yes. if the location warrants traffic calming measures, a public meeting is held to discuss requirements for various options

Q16

Can you please provide a copy of your NTMP application form?

Traffic-Calming-Petition.pdf (865.5KB)

Q17 **Respondent skipped this question**

Can you please provide a copy of the NTMP document?

#4

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Friday, October 29, 2021 6:44:08 AM
Last Modified: Friday, October 29, 2021 8:11:44 AM
Time Spent: 01:27:36
IP Address: 67.185.189.254

Page 1

Q1

What is the name of your agency?

Pierce County

Q2

What is the yearly budget for your NTMP/calming program?

No fixed budget for Speed Humps, but is at the discretion of PC Council. PC Council also funds some DFS signs. Developers sometimes fund Speed Humps. Driver feedback signs approx. $10,000 per year capital, approx..$15,000 per year for on going software support and repairs. Deployment labor, engineering and equipment not included.

Q3

What are the typical funding sources for your NTMP/calming program?

PC Council funds Speed Humps and DFS signs, but also some in-house funding for DFS signs.

Q4

1–2

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Vijay Kulkarni**
Email Address	**vijay.kulkarni@piercecountywa.gov**
Phone Number	**2537982267**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

Although we do not have a funded program, our Traffic Calming approach is multifaceted to include 4Es, Neighborhood Sign Entry signs, Driver Feedback signs, Sheriff Enforcement requests, Speed humps and lane narrowing.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Speed Humps

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
Typically require a minimum of 1,000 ADT with 85th percentile speeds of at least 8 over the speed limit to consider driver feedback signs. For speed humps they are used to deter cut-through traffic using local roads instead of the arterial system. Only local roads can have speed humps installed.

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Arterial roadways do not have speed humps. Typically local roads would not have driver feedback signs, but can if the traffic volume and speeds are high enough

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests,

From traffic enforcement,

Other (please specify):

County Council passes on requests from citizens

Q11

How does the program ensure equity for all neighborhoods?

Every road is considered equally

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

No dedicated funded program at present

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

When speed humps are funded by the County Council, typically a survey is sent out to the affected neighborhood to determine if the community wants the speed humps as well as which locations are desired.

Q16

Can you please provide a copy of your NTMP application form?

Neighborhood Entry Packet.doc (523.5KB)

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#5

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Friday, October 29, 2021 11:48:22 AM
Last Modified: Friday, October 29, 2021 12:00:29 PM
Time Spent: 00:12:07
IP Address: 107.0.23.170

Page 1

Q1

What is the name of your agency?

City of Camas

Q2

What is the yearly budget for your NTMP/calming program?

$0

Q3

What are the typical funding sources for your NTMP/calming program?

General/Street Fund, when available

Q4

Respondent skipped this question

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**James Carothers**
Email Address	**jcarothers@cityofcamas.us**
Phone Number	**13608177230**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

There is no budget and less than one FTE is devoted to the program.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Other (please specify):

The checked boxes are for potential projects that might be funded by private groups/HOAs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
Speed, volumes, roadway classification

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Collectors have some restrictions and there has never been measures placed on arterials.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Other (please specify):

Minimum of 5 signatures if no HOA or Neighborhood

Q11

How does the program ensure equity for all neighborhoods?

There is no current program being funded and thus no equity ensurance.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

Yes (please specify):
Based on speeds, collision, pedestrian centers, road type, but only when funded.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Based on prioritization and funding availability.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes when there is budget authority. There are opportunities to discuss as well as neighborhood appointed individuals to the committee.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#6

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Monday, November 01, 2021 10:41:57 AM
Last Modified:	Monday, November 01, 2021 10:48:48 AM
Time Spent:	00:06:51
IP Address:	74.85.37.2

Page 1

Q1

What is the name of your agency?

City of Longview

Q2

What is the yearly budget for your NTMP/calming program?

None

Q3

What are the typical funding sources for your NTMP/calming program?

Federal or State

Q4

Respondent skipped this question

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Samuel Barham**
Email Address	**sam.barham@ci.longview.wa.us**
Phone Number	**3604425224**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

We have no budget for NTMP/Calming program. Out of operations we will evaluate the need for speed humps.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Speed Humps

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Respondent skipped this question

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

Treat all request equally.

Q12

Does the program include the following elements? Check all that apply.

Engineering

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

N/A

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

N/A

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#7

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, November 02, 2021 7:16:16 PM
Last Modified: Tuesday, November 02, 2021 7:26:54 PM
Time Spent: 00:10:38
IP Address: 24.21.200.97

Page 1

Q1

What is the name of your agency?

City of Portland Bureau of Transportation

Q2

What is the yearly budget for your NTMP/calming program?

We don't really have a program. But we do have funding for traffic calming through various programs like neighborhood greenways and Safe Routes to School. I'd put our annual speed bump funding at $1m

Q3

What are the typical funding sources for your NTMP/calming program?

GTR, some funding from school district bonds.

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Scott Cohen**
Email Address	**scott.cohen@portlandoregon.gov**
Phone Number	**503-823-5345**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

As described above, we don't have a dedicated traffic calming program any longer. It is spread throughout several program areas.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
I'm not sure what this question means.

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Yes. Major emergency response routes have restrictions and the Fire Bureau typically has a major say in whether we'll do those routes. Additionally, Major Transit Routes and Freight routes are unlikely to qualify for traffic calming. We still will review these streets on a case by case basis and look to other tools beyond our most ubiquitous (speed bumps) to slow speeds.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests,

Other planning processes,

Other (please specify):
We use a number of inputs. We've also developed an evaluation matrix to help us determine which streets best qualify for speed reduction.

Q11

How does the program ensure equity for all neighborhoods?

We don't define equity based on equal geographical representation. We have an equity matrix that gives us a score for each census tract in the city to help us determine which areas have higher needs.

Q12

Does the program include the following elements? Check all that apply.

Education,

Engineering,

Equity

Q13

Is there a project prioritization methodology?

Yes (please specify):
Evaluation matrix developed weighing a number of measures.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Using the evaluation matrix.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

It depends. Most of the time they are not involved since we primarily use speed bumps. If we are deploying other measure, particularly access management we work with the neighborhood and business association and provide individual notification and opportunity to comment for all residents.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#8

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Friday, November 05, 2021 8:56:42 AM
Last Modified:	Friday, November 05, 2021 9:31:49 AM
Time Spent:	00:35:06
IP Address:	67.51.183.250

Page 1

Q1

What is the name of your agency?

City of Vancouver

Q2

What is the yearly budget for your NTMP/calming program?

300,000

Q3

What are the typical funding sources for your NTMP/calming program?

REET and Transportation Benefit District funds

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Jennifer Campos**
Email Address	**jennifer.campos@cityofvancouver.us**
Phone Number	**3606242958**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

This decision package funds projects implemented as part of the ongoing Neighborhood Traffic Calming Program help slow neighborhood traffic and enhance livability.
These projects may address education and awareness on reducing speeds, pedestrian and bicyclist safety, and other strategies to improve neighborhood mobility.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs,

Other (please specify):

bicycle facilities, street trees

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
We have different thresholds for local streets and arterials based on speeds and volumes

---

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Streets with less than 500 vehicles in a 24 hour period, dead end streets

---

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests,

Other planning processes

Q11

How does the program ensure equity for all neighborhoods?

The program doesn't require a resident to be part of a neighborhood association or participate in their neighborhood association allowing better access to the program for individuals. We also provide support to project champions for outreach and advertise the program through multiple channels and using a variety of different methods.

Q12

Does the program include the following elements? Check all that apply.

Education,

Engineering

Q13

Is there a project prioritization methodology?

Yes (please specify):
The City completes an objective criteria scoring analysis on things such as presence of sidewalks, speeds, volumes, etc. and then a citizen committee reviews and scores the project on a more subjective set of criteria.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

We combine the scores assigned by the City and the citizen review committee and the top scoring projects receive funding. Projects that do not receive funding are able to move into the coming year's program.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

The resident and/or neighborhood has an opportunity to review the project design as well provide initial insight into what type of treatment they may want to see installed.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

2021 Traffic Calming Program Document_FINAL.pdf (2.8MB)

#9

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Friday, November 05, 2021 10:32:42 AM
Last Modified:	Friday, November 05, 2021 10:39:28 AM
Time Spent:	00:06:45
IP Address:	204.147.152.5

Page 1

Q1

What is the name of your agency?

Washington County

Q2

What is the yearly budget for your NTMP/calming program?

$200,000

Q3

What are the typical funding sources for your NTMP/calming program?

Urban Road Maintenance District tax

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Melissa Norman**
Email Address	**melissa_norman@co.washington.or.us**
Phone Number	**5038467939**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

Our Neighborhood Streets Program (NSP) helps improve the quality of life in urban neighborhoods outside cities by reducing speeding and cut-through traffic.

The community is an important part of the this process. We help those who live and work in the project area find solutions that work for the neighborhood.

More info: https://www.co.washington.or.us/LUT/Divisions/TrafficEngineering/NSP/index.cfm

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
speed and volume requirements, road classification

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Only on locals, neighborhood routes, and collectors that qualify as 'residential collectors'

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests,

Other planning processes

Q11

How does the program ensure equity for all neighborhoods?

Projects are ranked based on point system

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

Yes (please specify):
points for speed, volume

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

ranked based on point system, projects are implemented until funds are gone.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes. Petition required, committee helps develop traffic calming plan, plan is voted on by neighborhood.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#10

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, November 09, 2021 10:33:06 AM
Last Modified: Tuesday, November 09, 2021 10:59:25 AM
Time Spent: 00:26:19
IP Address: 24.20.5.64

Page 1

Q1

What is the name of your agency?

City of Eugene

Q2

What is the yearly budget for your NTMP/calming program?

$100,000 annually

Q3

What are the typical funding sources for your NTMP/calming program?

Respondent skipped this question

Q4

How many full-time employees (FTE) are dedicated to the program?

1–2

Q5

What is the contact information for the program manager?

Name	**Logan Telles**
Email Address	**LTelles@eugene-or.gov**
Phone Number	**9493515279**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

The traffic calming program covers capital projects intended to reduce vehicle speeds. Residents can fill out a traffic calming petition or a neighborhood association can put in a request that prompts the City to do a speed study on the street in question. If the location meets program criteria, it is added to our list of eligible locations for traffic calming funds. Staff prioritize locations for construction from there.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Speed Humps,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

We don't have formal restrictions written into our policy, but historically we haven't performed this work on arterials. We are going to pilot traffic calming in advance of pedestrian crossings on an arterial in the future, but that project is not being paid for via the traffic calming program.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

We factor in our knowledge of demographic variables as we prioritize locations on our eligible list. We're also in the process of making sure all of our neighborhood associations understand that they can put in a speed study request without a petition.

Q12

Does the program include the following elements? Check all that apply.

Engineering,

Equity

Q13

Is there a project prioritization methodology?

Yes (please specify):
Project prioritization includes crash history, proximity to schools/parks, equity, and if there is pre-scheduled paving project that we can bundle the traffic calming in with.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

We can typically only construct 1-2 projects off the eligible list each year, so most projects wait for implementation a few years before they are built. The prioritization factors described in the previous question are how we decide which projects are being constructed next.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Individual residents who want traffic calming need to provide a petition signed by 25%+ of the households/businesses on the project segment to trigger the speed study. Once a project is selected for design/construction, we do additional community engagement. This usually involves at least one open house (we've switched to open air tabling during COVID). During this event we'll show a map with the proposed treatments. Sometimes neighbors will ask us to bundle additional improvements into the project (like marked crossings). Sometimes we can accommodate these requests and sometimes we can't. We have standard drawings for most of our traffic calming devices.

Q16

Can you please provide a copy of your NTMP application form?

2021 Traffic Calming Petition.pdf (120.4KB)

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#11

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, November 09, 2021 11:24:50 AM
Last Modified: Tuesday, November 09, 2021 11:41:49 AM
Time Spent: 00:16:59
IP Address: 73.221.161.18

Page 1

Q1

What is the name of your agency?

City of Issaquah

Q2

What is the yearly budget for your NTMP/calming program?

2021 budget $45,000 for traffic counts and traffic calming, 2022 same for counts and calming plus $50,000 for Neighborhood Program

Q3

What are the typical funding sources for your NTMP/calming program?

General Fund

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**John Mortenson**
Email Address	**johnm@issaquahwa.gov**
Phone Number	**4258373427**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

2021 - traffic calming is reactive. Received requests in SeeClickFix, collect data. Currently designing neighborhood program.
2022 - Neighborhood program will select projects and design improvements to be constructed in 2023.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Radar Speed Trailer/Signs,

Speed Humps

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
speed data for traffic calming, pedestrian crossing volumes for crosswalk treatments

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

no physical devices for arterials and collectors. Proposed new traffic calming devices will allow physical devices on collectors.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

Good question. This is something that we are trying to figure out. Please share any good ideas. At PWX in 2019 the City of Boston had a good plan for this.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

to be determined

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

To be determined

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#12

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, November 09, 2021 11:26:51 AM
Last Modified: Tuesday, November 09, 2021 12:19:08 PM
Time Spent: 00:52:17
IP Address: 146.129.252.126

Page 1

Q1

What is the name of your agency?

Kent, WA

Q2

What is the yearly budget for your NTMP/calming program?

$150,000

Q3

What are the typical funding sources for your NTMP/calming program?

Business and Occupation tax

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Rob Brown**
Email Address	**rbrown@kentwa.gov**
Phone Number	**253-865-5571**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

N/A. Our program is not included in the City budget. Funds come from a Business and Occupation tax that funds street improvements in the City.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Our program is only used on residential streets that are classified as local or collector and which have speed limits of 30 mph or less. It does not apply to arterial streets or streets with posted speed limits of 35 mph or greater.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests,

Other (please specify):

Residents can call, email, or fill out a resident request through our online request form. Complaints about speeding are directed to this program.

Q11

How does the program ensure equity for all neighborhoods?

Any group of five households in a neighborhood can make a request. Traffic studies are completed on any street or group of streets that meet the program requirements. Street(s) that meet the thresholds for traffic calming then move to the public process. Requests are processed in the order they are received.

Q12

Does the program include the following elements? Check all that apply.

Engineering

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Locations that meet the program criteria are funded in the order they are received. Our traffic calming features are relatively simple so the projects are somewhat low cost.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes. We hold public meetings with the neighborhood to determine which traffic calming devices the neighborhood prefers. We then send out ballots to the entire neighborhood to vote on the installation of the devices. Approval requires the approval of a majority

Q16

Respondent skipped this question

Can you please provide a copy of your NTMP application form?

Q17

Can you please provide a copy of the NTMP document?

RTCP_2020.pdf (138.4KB)

#13

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Tuesday, November 09, 2021 1:16:31 PM
Last Modified:	Tuesday, November 09, 2021 2:34:31 PM
Time Spent:	01:18:00
IP Address:	208.71.204.65

Page 1

Q1

What is the name of your agency?

City of Lake Oswego

Q2

What is the yearly budget for your NTMP/calming program?

Recent budgets have not included funding for NTMP program as no projects have been identified.

Q3

What are the typical funding sources for your NTMP/calming program?

Funds are allocated with City Budget.

Q4

1–2

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Will Farley**
Email Address	**wfarley@ci.oswego.or.us**
Phone Number	**503-638-0274**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

The Neighborhood Traffic Management Program (NTMP) was established in 1993 to give citizens and neighborhoods greater participation in decisions regarding traffic management on neighborhood collectors and local residential streets in order to promote the safety and livability of residential neighborhoods.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Traffic Islands,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

No

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Major Collectors, Minor Arterials, and Major Arterials

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

The Neighborhood Traffic Management Program is due for revisions and should be updated to include equity.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

Yes (please specify):
Projects are scored based on traffic volumes, travel speeds, crash history, presence of pedestrian facilities, and presence of schools or other pedestrian areas.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

Higher scores have higher priority for funding.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes. Public hearing is held through Transportation Advisory Board for comment on design/approval of measures. Vote can be made by ballot sent to residents in impacted area.

Q16

Can you please provide a copy of your NTMP application form?

ntmp_application_04-09-13.pdf (160KB)

Q17

Can you please provide a copy of the NTMP document?

ntmpbrochure2008.pdf (317.6KB)

#14

COMPLETE

Collector: Web Link 1 (Web Link)
Started: Tuesday, November 09, 2021 11:00:00 AM
Last Modified: Tuesday, November 09, 2021 4:07:35 PM
Time Spent: 05:07:34
IP Address: 136.226.55.104

Page 1

Q1

What is the name of your agency?

City of Tacoma

Q2

What is the yearly budget for your NTMP/calming program?

$125,000

Q3

What are the typical funding sources for your NTMP/calming program?

Real Estate Excise Tax

Q4 **1–2**

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Jennifer Kammerzell**
Email Address	**jkammerzell@cityoftacoma.org**
Phone Number	**2535915000**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

This is a complaint based program that primarily funds speed studies, speed humps, traffic circles, and painted bulbouts on residential streets.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Yes (please specify):
Speed, volume, collisions, proximity to schools

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

By policy - no vertical traffic calming devices on arterials or emergency response routes, and most transit routes.

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through citizen requests,

Other planning processes,

From traffic enforcement,

Other (please specify):

private development impact

Q11

How does the program ensure equity for all neighborhoods?

It does not account for equity or equality. The City would like to improve it to prioritize crashes and racial equity.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering

Q13

Is there a project prioritization methodology?

No

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

First come-first serve

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Not typically in the design, but they do have to route a petition prior to construction that allows some feedback on location.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

#15

COMPLETE

Collector:	Web Link 1 (Web Link)
Started:	Wednesday, November 10, 2021 8:36:31 AM
Last Modified:	Wednesday, November 10, 2021 8:52:20 AM
Time Spent:	00:15:49
IP Address:	65.141.171.162

Page 1

Q1

What is the name of your agency?

Thurston County Public Works

Q2

What is the yearly budget for your NTMP/calming program?

No Budget, But we are requesting $100,000 in the next budget cycle

Q3

What are the typical funding sources for your NTMP/calming program?

Road Fund (if it goes through)

Q4

Respondent skipped this question

How many full-time employees (FTE) are dedicated to the program?

Q5

What is the contact information for the program manager?

Name	**Matt Unzelman**
Email Address	**matt.unzelman@co.thurston.wa.us**
Phone Number	**13608672335**

Q6

Please provide a short description of your NTMP/calming program, as described in your budget

Currently we have no budget, but we have a process where neighborhoods can fund their own improvements. This involves a preliminary petition with 30% buy off from the neighbors, the county completes the design (working with neighborhood and other stakeholders), final petition with 51% buy off from the neighbors and then the neighborhood pays for the installation of the calming measures. The county then assumes maintenance of the assets for liability purposes. We are requesting budget for this program in the next fiscal year, if received we would are thinking we would have more of a application process with prioritization to select projects.

Q7

What program tools are used in your NTMP/calming program? Check all that apply.

Signage,

Pavement Markings,

Traffic Islands,

Targeted Enforcement,

Radar Speed Trailer/Signs,

Speed Humps,

Roundabouts/Traffic Circles,

Curb Extensions/Bulb Outs

Q8

Are the elements of the program divided by complexity levels? If yes, what are the parameters? (I.e., speed, volumes, etc.)

Respondent skipped this question

Q9

Are there any roads on which you will not implement calming measures? (I.e., are there restrictions based on road classification?)

Currently these measures would only be installed on local residential roads (25mph)

Q10

In your NTMP/calming program, please explain the request process. How can a neighborhood association or citizen request a project? Choose all that apply.

Through a neighborhood association,

Through citizen requests

Q11

How does the program ensure equity for all neighborhoods?

We are still in the planning stages of our program, but we intend to use some census data to ensure equity is being considered.

Q12

Does the program include the following elements? Check all that apply.

Education,

Enforcement,

Engineering,

Equity

Q13

Is there a project prioritization methodology?

Yes (please specify):
Again, we are still in the process, but we plan to prioritize based on census data (for equity), severity of speeding, number of users etc.

Q14

How do you determine the projects that receive funding and the projects that have to wait for implementation?

We plan to used our prioritization process to determine who receives funding.

Q15

Is the neighborhood involved in the project design/approval of traffic calming measures? If yes, how are they involved?

Yes, we work with the neighborhood during the process to ensure buy off.

Q16

Can you please provide a copy of your NTMP application form?

Respondent skipped this question

Q17

Can you please provide a copy of the NTMP document?

Respondent skipped this question

Development Potential Measures for the NTMP Memorandum and Matrix

Memorandum

DATE: March 18, 2022

TO: Gary Albrecht, AICP, Clark County Public Works

FROM: Judith R. Perez, AICP, PBS Engineering and Environmental Inc.

PROJECT: 71706.000, Phase 0006, Task 006

REGARDING: Neighborhood Traffic Management Program – Developing Potential Measures for the Development of Clark County's Neighborhood Traffic Management Program Memorandum

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The PBS Engineering and Environmental Inc. (PBS) team conducted research of neighborhood traffic management and calming programs, from Washington and Oregon, to assist Clark County in the development of a Neighborhood Traffic Management Program (NTMP) that will address the goals identified for the program.

The neighborhood traffic management/calming strategies included on this memorandum are an attempt to enhance traffic and pedestrian safety and preserve neighborhood character and livability. These strategies and tools will be used to address Clark County's neighborhood traffic concerns. There are a number of traffic management/calming devices that are available to achieve this effect. During the NTMP process, Clark County staff will choose traffic management/calming measures from the NTMP Tool Kit. Specific traffic management measures can be used to address problems with speeding, cut-through traffic, increased volume, and safety. Applicable measures will be implemented after careful analysis and review of traffic concerns; consideration of roadway characteristics; community context; diversity, equity, and inclusion (DEI) lens; and availability of funding. The NTMP Tool Kit will be developed once county staff identifies which NTMP strategies and tools should be included in the Clark County NTMP document.

JRP:mo

Neighborhood Traffic Management Program

Level 3 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education/ Community Involvement					◆	◆						$
Special Neighborhood Sign				◆	◆	◆	◆	◆	◆	◆	◆	$
Neighborhood Traffic Management Website	◆					◆						$$
Increased Police Enforcement	◆											$$$
Signage & Striping												
Optical Speed Bars	◆					◆		◆	◆	◆	◆	$
Striping Narrower Lanes	◆				◆	◆	◆	◆	◆	◆	◆	$$
High-visibility crosswalks					◆	◆	◆	◆	◆	◆	◆	$$
Minor Street Modifications												
Centerline Raised Pavement Markers	◆					◆	◆					$
Street Murals	◆							◆	◆	◆	◆	$$
Minor Sidewalk Filling					◆	◆			◆			$$
Textured Pavement					◆			◆	◆		◆	$$$
Electronic Signage												
Speed Radar Trailer	◆				◆	◆	◆	◆	◆	◆	◆	$
Speed Feedback Signs	◆					◆	◆	◆	◆	◆	◆	$
School Zone Flashing Beacons	◆				◆				◆			$$
RRFB/PHB					◆		◆	◆	◆	◆	◆	$$

**Each*

Horizontal Measures	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Gateways and Entry Treatments	◆							◆	◆	◆		$$
Traffic Circles	◆	◆	◆			◆	◆	◆	◆	◆		$$*
Lateral Shifts	◆					◆		◆	◆	◆	◆	$$**
Pedestrian Refuge Island					◆	◆	◆	◆	◆	◆	◆	$$$
Traffic Football	◆							◆	◆	◆	◆	$$$$
Chokers	◆				◆			◆	◆	◆	◆	$$$$$
One-Lane Choker	◆				◆			◆	◆	◆	◆	$$$$$
Chicanes	◆				◆			◆	◆	◆		$$$$$
Roundabout (Single-Lane)	◆					◆						$$$$$
Vertical Measures												
Speed Humps	◆		◆					◆	◆	◆		$*
Speed Cushion	◆							◆	◆	◆	◆	$*
Speed Kidneys	◆							◆	◆	◆	◆	$*
Speed Table	◆							◆	◆	◆	◆	$*
Raised Crosswalk	◆				◆		◆					$$*
Raised Intersection	◆				◆		◆	◆	◆	◆	◆	$$$$$$
Parking												
Angled Parking	◆			◆				◆	◆	◆	◆	$
Parking Restrictions				◆	◆		◆	◆	◆	◆	◆	$

**Each*

***$$$ If Lateral Shift involves drainage*

Vegetation	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Vegetation Maintenance					◆	◆	◆	◆	◆		◆	$
Curbside and Median Trees	◆							◆		◆		$$$

Other Traffic Diversion

Partial Closures		◆	◆		◆	◆	◆	◆	◆	◆	◆	$$$
Intersection Channelization/ Forced-Turn Islands/Semi-Diverters		◆	◆		◆	◆	◆	◆	◆	◆	◆	$$$$
Median Barrier		◆	◆			◆	◆	◆	◆	◆		$$$$
Diagonal Diverter		◆	◆									$$$$
One-Way Couplet Conversions		◆	◆	◆	◆				◆		◆	$$$$
Two-Way Street Conversions	◆	◆	◆	◆	◆				◆		◆	$$$$
Road Narrowing / Detached Sidewalks	◆				◆			◆	◆	◆	◆	$$$$
Full Closure/Cul-De-Sac/Dead End Streets		◆	◆					◆	◆	◆	◆	$$$$$

**Each*

Neighborhood Traffic Management Program

Level 2 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education/ Community Involvement					●	●						$
Special Neighborhood Sign				●	●	●	●	●	●	●	●	$
Neighborhood Traffic Management Website	●					●						$$
Increased Police Enforcement	●											$$$
Signage & Striping												
Optical Speed Bars	●					●		●	●	●	●	$
Striping Narrower Lanes	●				●	●	●	●	●	●	●	$$
Minor Street Modifications												
Centerline Raised Pavement Markers	●					●	●					$
Minor Sidewalk Filling					●	●			●			$$
Electronic Signage												
Speed Radar Trailer	●				●	●	●	●	●	●	●	$
Speed Feedback Signs	●					●	●	●	●	●	●	$
Horizontal Measures												
Gateways and Entry Treatments	●							●	●	●		$$
Traffic Circles	●	●	●			●	●	●	●	●		$$*
Pedestrian Refuge Island					●	●	●	●	●	●	●	$$$

**Each*

Vertical Measures	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/ped facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Speed Humps	●		●					●	●	●		$*
Raised Crosswalk	●				●		●					$$*
Parking												
Parking Restrictions				●	●		●	●	●	●	●	$
Vegetation												
Vegetation Maintenance					●	●	●	●	●		●	$

**Each*

Neighborhood Traffic Management Program

Level 1 Tool Compilation

	Speed reduction	Traffic volume	Traffic diversion	Neighborhood parking management	Bike/Ped. facilities connectivity	Safety	Sight distance	Neighborhood park vicinity	Safe-route-to-school location	Zoning for medium of high density residential	Vicinity to transit line	Cost
Education & Enforcement												
Neighborhood Education / Community Involvement					■	■						$
Special Neighborhood Sign				■	■	■	■	■	■	■	■	$
Neighborhood Traffic Management Website	■					■						$$
Increased Police Enforcement	■											$$$
Minor Street Modifications												
Centerline Raised Pavement Markers	■					■	■					$
Minor Sidewalk Filling					■	■			■			$$
Electronic Signage												
Speed Radar Trailer	■				■	■	■	■	■	■	■	$
Speed Feedback Signs	■					■	■	■	■	■	■	$
Parking												
Parking Restrictions				■	■		■	■	■	■	■	$
Vegetation												
Vegetation Maintenance					■	■	■	■	■		■	$

Memorandum to Identify Demonstrated Safety, Liability, and other Benefits or Detractions in Neighborhood Management Programs

Memorandum

DATE: March 18, 2022

TO: Gary Albrecht, AICP, Clark County Public Works

FROM: Judith R. Perez, AICP, PBS Engineering and Environmental Inc.

PROJECT: 71706.000, Phase 0006, Task 004

REGARDING: Neighborhood Traffic Management Program – Memorandum to Identify Demonstrated Safety, Livability, and Other Benefits or Detractions in Neighborhood Traffic Management Programs

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The PBS Engineering and Environmental Inc. (PBS) team conducted research of neighborhood traffic management and calming programs, from Washington and Oregon, to assist Clark County in the development of a Neighborhood Traffic Management Program (NTMP) that will address the goals identified for the program.

Transportation influences the livability of our communities, including access to good jobs, affordable housing, quality schools, safe streets, a clean environment, and many other things that factor into our overall quality of life.

Traffic conditions on local, access, and collector streets can greatly affect neighborhood livability. When streets are safe and pleasant, the quality of life is enhanced. When traffic problems become a daily occurrence, our sense of community and personal well-being are threatened. By addressing high vehicular speeds and cut-through volumes, traffic management can increase both the real and perceived safety of pedestrians and bicyclists and improve the quality of life within the neighborhood.

Definitions of traffic management have varied with publications and with time. The following definition was developed by the US Department of Transportation Federal Highway Administration (FHWA):

"The primary purpose of traffic management is to support the livability and vitality of residential and commercial areas through improvements in non-motorist safety, mobility, and comfort. These objectives are typically achieved by reducing vehicle speeds or volumes on a single street or a street network. Traffic management measures consist of horizontal, vertical, lane narrowing, roadside, and other features that use self-enforcing physical or perception means to produce desired effects."

The traffic management strategies outlined on the NTMP Strategies Tool Kit incorporate all the previously mentioned traffic management measures.

Complete Streets

Streets are a vital part of livable, attractive communities. Clark County uses a complete streets approach in providing safe, comfortable, and convenient access to users of all abilities. Complete streets are designed and operated to ensure safe access for all users, including children, elderly, pedestrians, bicyclists, transit vehicles, and trucks appropriate to the function and context of the facility. Every complete street looks different, according to its context, community preferences, the types of road users, and their needs.

While complete streets come in many shapes and forms, they share the same principles. In Clark County complete streets:

- Accommodate all users
- Are designed for safety and to prevent fatal and serious injury crashes
- Prioritize pedestrian movement because all trips include a walking component
- Complement surrounding buildings, activities, environment, and community
- Incorporate sustainability principles

Livability

Livability has emerged as an important concept in the field of planning. Increasingly, policy and community planning efforts at all levels of governance use the term "livability," often in describing long range goals.

Livability is a measurement of how attractive a neighborhood, city, and/or region is for you based on a variety of factors. Livability in neighborhoods is addressed in Clark County's Code, specifically relating to traffic conditions within urban neighborhoods in Section 40.350.030.

Clark County is committed to working with neighborhood associations to improve livability in the areas around identified concerns as part of the NTMP. Clark County staff will do this by using the following livability framework to guide how we design and evaluate future projects.

Livability Framework

- **Health and environment:** Quality of life, comfortable environment, well-being, sustainability, green space, active transportation, and public health
- **Sense of place**: Legacy, vibrancy, sense of identity, cultural pride, and consideration of the future
- **Safety**: Personal security, freedom from danger, risk, or harm
- **Connections**: Infrastructure aligning with meaningful physical, social, and cultural community connections
- **Equity:** Inclusive of all people—all races, ethnicities, incomes, and abilities with extra effort to ensure that historically under-represented populations are included, and past inequities are addressed to the extent possible

JRP:mo

Process to Achieve Consensus Memorandum

Memorandum

DATE: March 18, 2022

TO: Gary Albrecht, AICP, Clark County Public Works

FROM: Judith R. Perez, AICP, PBS Engineering and Environmental Inc.

PROJECT: 71706.000, Phase 0005, Task 003

REGARDING: Neighborhood Traffic Management Program – Process to Achieve Consensus Across Clark County Neighborhoods to Balance Community Needs with Limited Funding Memorandum

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The PBS Engineering and Environmental Inc. (PBS) team conducted research of neighborhood traffic management and calming programs, from Washington and Oregon, to assist Clark County in the development of a Neighborhood Traffic Management Program (NTMP) that will address the goals identified for the program.

What is Consensus?

Consensus helps to build a stronger community—the idea is to weave together all the ideas and address all the key concerns to find something that works for everyone.

To begin with, the issue may seem simple, but the discussion soon opens up as each neighborhood brings different perspectives, information, and ideas to the table. During this process different options, wants, and needs are discussed. This middle part of the discussion can feel quite messy—it can be hard to see the way forward when everyone is grappling with lots of ideas and different people's needs. You may think you are coming to an agreement and then a new factor comes up and you have to go back to exploring differences. Exploration is necessary in order to get a good understanding of where everyone is coming from. This in turn enables the group to come together in finding a solution which genuinely has everyone's support.

NTMP Consensus Process

1. State the problem or need. Using the NTMP Request Form, county residents or neighborhood associations will begin the process by identifying the problem or need. This ensures that everyone has the relevant background information, and the neighborhood and county staff are clear about the issues and/or needs to resolve.
2. Initial determination. Once the NTMP Request Form is submitted, county staff will review the NTMP Request Form and conduct an initial evaluation to determine if the problem identified meets the criteria of the NTMP.
3. Collaboration meeting with neighborhood association. If the problem identified is eligible, county staff will meet with the neighborhood association to discuss the stated problem or need, possible strategies, tools to address issues, and explain evaluation process to prioritize project within the NTMP. If the problem identified is not eligible, county staff will reach out to explain reasoning for decision.
4. Data Collection and Evaluation. County staff will gather data and conduct an evaluation of the identified issue or need to determine if it should be added to the NTMP process and considered for implementation. As part of the project prioritization, points will be awarded based on characteristics of

each street as outlined in the NTMP Project Prioritization Worksheet, which assigns points based on the following factors:

a. Traffic Speeds: The 85th percentile of all vehicles in both directions over a 7-day minimum period.

b. Average Daily Traffic (ADT) Volumes: The average number of vehicles per day in both directions over a 7-day minimum period.

c. Cut-Through Traffic: A measured imbalance where the ADT in one direction is more than 2.5 times greater than the other direction.

d. Crash History: The most recent 5-year crash data from the WSDOT Crash Data Portal.

e. Pedestrian Facilities: The typical presence of sidewalks or separated shoulder or walkways.

f. Park, School (K-12), or Transit Stop: The presence or proximity of these features or presence of a school walking route on the study street.

5. Early engagement. Residents or neighborhood associations with requests which meet the criteria in the initial determination will be asked to gather a minimum of "x" signatures in support of pursuing a traffic management project to address the issue or need raised on the NTMP Request Form. The signatures must be from individuals 18 years and older and from separate households. If the requesting individual cannot attain the minimum required "x" signatures, the request will not be able to proceed. The magnitude of support by the neighborhood will also be considered as part of the prioritization process.

   In addition to determining the local neighborhood support, county staff will provide the opportunity for residents living outside of the immediate study area to voice their opinions.

6. Prioritizing Projects. After the evaluation process is conducted by county staff, potential projects are scored within each category based on the applicable criteria. The top candidates in the pool are further evaluated in the field and a final ranking score is determined using input from the Neighborhood Association Council of Clark County. Making sure neighborhood concerns are accounted for on is essential for building trust.

   Because of limited resources, Clark County may not be able to implement all traffic calming projects proposed.

Balancing Neighborhood Traffic Management Needs with Limited Funding

The information described so far in this document is focused on the technical and engineering elements of a traffic management program. Despite the challenges of balancing competing technical and engineering needs with limited resources, several local agencies have started incorporating the diverse needs of each neighborhood into their traffic management prioritization process—noting that transportation is key in addressing and reducing disparities and building an inclusive community.

Funding of traffic management is an issue for many neighborhood traffic management programs. Balancing traffic management needs in Clark County's neighborhoods means working with neighborhoods in a way that is sensitive, supportive, inquiring, and analytical. To achieve this, county staff will incorporate a diversity, equity, and inclusion (DEI) lens as part of the NTMP process to ensure traffic management needs are met throughout all neighborhoods. This approach will change the way traffic management projects are prioritized. Instead of focusing on just the need for traffic management at a particular location, county staff will include in their project prioritization process the analysis of neighborhood demographics, provide opportunities to include diverse

community voices, and encourage projects to safely connect with parks, schools, neighborhoods, and other modes of transportation.

Challenges to Finding a Balance

Traffic management involves tradeoffs; finding a balance between the need to provide an efficient transportation network and maintaining a livable and safe environment for all users. The challenge of traffic management is selecting the appropriate measures and locations to reach that balance, and include the specific community needs of each individual neighborhood.

Often in neighborhood traffic management programs, meeting the desires of the residents is a challenge. Residents may want slower vehicle travel speeds through their neighborhoods, but mobility desires can be at odds with that goal. A traffic management strategy or tool seen as necessary by some may be seen as a nuisance by others. County staff will utilize neighborhood consensus as an approach to consider all traffic management projects, regardless of the neighborhood the project is located.

Although neighborhood traffic concerns generally relate to excessive speed, pedestrian and bicycle safety, cut-through traffic, crashes, and general quality of life issues, the NTMP recognizes the uniqueness of neighborhoods throughout Clark County and that the critical issues and concerns vary from case to case. Based on this diversity, the Clark County NTMP will consider a wide range of potential traffic management solutions to address specific concerns of a neighborhood. As options are considered, the surrounding street network will be carefully evaluated to avoid shifting impacts from one neighborhood to another.

JRP:mo

Appendix D

Appendix D NTMP Diversity, Equity, and Inclusion Lens

Diversity Equity and Inclusion Lens
DEI Assessment of the NTMP

Neighborhood Traffic Management Program Diversity, Equity, and Inclusion Lens

Neighborhood Traffic Management Program
Diversity, Equity, and Inclusion Lens

Purpose of the DEI Lens

This Diversity, Equity, and Inclusion (DEI) Lens is a tool for Clark County to use in its efforts to make plans, programs, and projects effectively serve all members of the Clark County community. The DEI Lens provides a method to proactively anticipate and overcome existing barriers to full community involvement and to avoid repeating historical inequities. The DEI Lens is helpful during the development phase of new plans, programs, or projects, and can also be used to improve existing projects.

How the DEI Lens Works

The DEI Lens is a set of questions that guide staff to identify who in Clark County will benefit from, and/or be impacted by, a given public project. Then, it helps staff find ways to engage with disproportionately affected communities so that they equitably receive benefits and are not overly burdened by negative impacts. Disproportionately affected communities include groups that often experience significantly higher and more adverse health and environmental effects from public and private infrastructure, due to exclusion from economic, political, and social opportunities. Examples include minority populations, low-income populations, and Indigenous peoples.

Not all of the DEI Lens questions will be relevant to every activity. Rather, this tool is intended to generate conversations within project teams and prompt staff to expand their thinking and practices beyond the status quo. This process is likely to be uncomfortable at times, yet the structured approach is designed to yield continuous improvement of public programs.

Definitions

Diversity: Representation – Different people at the table.

Equity: Access – Plans, programs, and projects provide equal possible outcomes.

Inclusion: Engagement and Belonging.

Engagement: A diversity of people actively participates in processes.

Belonging: Behaviors and social norms help people feel welcome.

Disproportionately Affected: Situations of concern where there exists significantly higher and more adverse health and environmental effects on minority populations, low-income populations or Indigenous peoples.

Exurban area: A less dense area outside of suburban areas, but more dense than rural areas.

Guiding Principles

Elevate Diverse Perspectives

Promote Equitable Opportunities and Outcomes

Foster Inclusive Experiences

Diversity, Equity, and Inclusion Lens Questionnaire

Clarify Purpose	
Is the Mission clearly stated? What is the intention?	
Are the Goals clearly stated? What are the desired broad outcomes?	
Are the Objectives clearly stated? What are measurable outcomes?	
Are the Strategies clearly stated? What will you do?	
Does the Purpose include DEI elements?	
If yes, are the DEI elements clearly stated? *For example, are specific references made to disparities or inequities for disproportionately affected community members?*	
Plan a Timeline	
Is the timeline/schedule for the project clearly stated?	
Identify Stakeholders	
Are the target populations to be served by the project (geographic, demographic) clearly stated?	
If other populations may indirectly benefit, are they clearly identified?	
If specific populations may be negatively impacted, are they identified?	
What is the geographic area? (urban, suburban, rural, etc.)	
What are the stakeholder demographics? (race, ethnicity, low-income, etc.)	
Determine Success Measures	
Is it clearly stated what efforts will be made to engage disproportionately affected communities to determine what success would look like for this project?	
Do success measures attend to and prioritize disparities or inequities for disproportionately affected community members?	
Are there clear quantitative success measures for reporting? *Quantitative = "How Much Did We Do?" statistics*	
Are there clear qualitative success measures for reporting? *Qualitative = "How Well Did We Do It?" statistics*	

Specify Stakeholder Involvement Strategies	
Is it clearly stated which specific tools and strategies will be used for the following objectives? • Inform: educating the public • Consult: gathering information from the public • Collaborate: partnering with the public to make decisions or plans • Feedback: stakeholder input post-implementation	
Use Targeted Stakeholder Outreach Opportunities	
Is it clearly stated which approaches will be used to seek participation from disproportionately affected communities?	
What relationships are strong, need nurturing, or need to be created?	
How will you build stronger relationships?	
Will you provide language translation and interpretation?	
Who will check language translations for quality?	
Where will you meet communities where they are? *Such as venues*	
How will you represent stakeholders in materials, e.g., images?	
Have outreach staff had training on implicit bias or other DEI education?	
When you host events, what will you do to help make them welcoming to those members of the community who have not historically participated?	
Document Public Participation	
Is it clearly stated how the following public participation items will be tracked and documented?	
What participation opportunities did you offer?	
Who did you offer participation opportunities to?	
How did you offer participation opportunities?	
What efforts were made to reach disproportionately impacted communities?	
Who actually participated?	

Diversity, Equity, and Inclusion Lens Questionnaire

Quantity
Example: Number of outreach activities (by type) *Example: Number of people/organizations that participated*

Quality	
What activities were most successful? *Example: Which strategies engaged the most disproportionately affected people/communities*	
What activities were least successful?	
Did participant demographics reflect the community impacted?	
Who did not participate?	

Impact
What is the ideal impact on the community? *Example: Changed behavior, e.g., more people biking; circumstance, e.g., shorter commute available to jobs; skills and knowledge growth, e.g., increased awareness of public services and resources; improved attitude or opinion, e.g., greater satisfaction with public services and resources; anecdotal feedback from community, e.g., personal and communal stories of positive outcomes.*

Adverse Consequences
Were there unanticipated adverse consequences?

Feedback
Refer back to Stakeholder Involvement Objectives in DEI Lens Questionnaire *Consider surveying targeted audiences about their experiences with the project.*

Improvement Plan
What are lessons learned and what will you do differently next time?

Neighborhood Traffic Management Program DEI Assessment of the NTMP

Neighborhood Traffic Management Program
DEI Assessment of the NTMP

This review of the Clark County (County) Neighborhood Transportation Management Plan (NTMP) through a Diversity, Equity and Inclusion (DEI) Lens acknowledges strengths of the NTMP while highlighting concerns, and offering recommendations to assist agency staff in better aligning the NTMP with the following DEI Lens guiding principles:

- Elevate Diverse Perspectives
- Promote Equitable Opportunities and Outcomes
- Foster Inclusive Experiences

NTMP Goals and Process Framework

Strengths

Including equity in the following aspects of the NTMP will help ensure County staff will consider disproportionately affected community members and groups while performing public service projects that address safety and livability concerns.

- Promoting DEI in Clark County neighborhoods is listed as one of the NTMP's goals. Stating this clearly in the charter documents for this framework establishes that the County values DEI principles and seeks to embed them in the way public works projects are prioritized, designed, and implemented.
- The engagement phase of the NTMP is designed to prompt meaningful participation from community members in determining priorities for public funding of projects.
- Equity is documented as one of the primary concepts (the four Es) that guides the County in ranking eligible projects.

Concerns

Consideration of the following items will help the County achieve the equity goal of the NTMP.

- While the NTMP includes equity as a goal, it does not state any objectives or strategies that directly relate to DEI concerns.
- The NTMP depends strongly on the NACCC to garner public participation. This reliance on NACCC may result in perpetuating inequities. The problem is that NACCC in locations that have a preponderance of disproportionately affected residents, e.g., low-income residents, could be less active than other associations. The County could mitigate this by:
  - Focusing outreach efforts to areas where NACCC are inactive.
  - Encouraging community-based organizations that represent disproportionately affected communities to participate in NACCC.

Recommendations

Performing the following actions will move the County forward on its path toward making outcomes of its work increasingly equitable for all residents.

- Add NTMP objectives and strategies that directly relate to DEI concerns.
  - Example Objective: Expand public involvement in neighborhood traffic management concerns in areas with higher than average low-income populations and locations where NACCC are inactive.
  - Example Strategy: Prioritize outreach to areas of the County where NACCC are inactive.

Recommendations for County to Strengthen Community Involvement Beyond Current Scope of NTMP

The County's current approach to the NTMP is to rely on the NACCC and its member associations for participation in the NTMP processes. One strength of this approach is that it takes advantage of existing structures that can use the new processes immediately. To make the NTMP more effective, we make the following recommendations for the County to consider to increase awareness of the NTMP in parts of the community that are not engaged with NACCC.

- Provide targeted assistance to help activate NACCC where they are inactive.
- Allocate resources for outreach to selected County areas where NACCC are less active than others.
- Seek to establish or strengthen relationships with community organizations that represent disproportionately affected populations and inform them of opportunities to participate in NACCC activities.

Recommendations

- Add language translation offer/link to header (or somewhere) in top one to three alternate languages.
- Translate the whole form into top one to three alternate languages.

NTMP Resident Request Form (Public Form)

Questions and Considerations:

- Looks good

NTMP Project Eligibility Form (Staff-Only Form)

Questions and Considerations

- It's noted that Free and Reduced Lunch Schools are included in the Project Prioritization Worksheet.
- Add variables related to disparities.
  - Is this a geographical area with less supportive safety and livability infrastructure than average (sidewalks, curb cuts, speed bumps)?
  - Is this a geographical area with an above average percentage of disproportionately affected residents?
    - Example: Free and Reduced Lunch School within ___ distance.
  - Is this a geographical area with an above average percentage of elderly or disabled residents?

NTMP Petition Form (Public Form)

Questions and Considerations

- Would the County provide a total list of addresses for the following purposes?
  - To target outreach.
  - To determine how many approvals are necessary to meet the required percentage.
- Assuming that NACCC are responsible for completing this form:
  - Does the County provide door hangers or other outreach resources?
  - What happens if the NACCC is inactive?
- What happens when potentially affected residents don't participate (are not available, uninformed, resist, opt-out, etc.)?
- Add a column for "Approve" to distinguish from "Acknowledge."

NTMP Project Prioritization Worksheet (Staff Form)

Questions and Considerations

- It is good that this worksheet includes an equity consideration (low-income via free and reduced lunch status for schools).
- Add variables related to disparities.
  - Is this a geographical area with less supportive safety and livability infrastructure than average (sidewalks, curb cuts, speed bumps)?
  - Is this a geographical area with an above average percentage of disproportionately affected residents?
    - Example: Free and Reduced Lunch School within ___ distance.
  - Is this a geographical area with an above average percentage of elderly or disabled residents?

NTMP Strategy Matrix (Staff-Only Form)

Questions and Considerations:

- Looks good.