City of Dublin

Office of the City Manager
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Memo

To: Members of Community Services Advisory Committee

From: Megan D. O'Callaghan, PE, City Manager

Date: November 1, 2022

Initiated By: Jean-Ellen Willis, P.E., Director of Transportation & Mobility
Chief of Police Justin Páez
Deputy Chief Nick Tabernik
Tina Wawszkiewicz, P.E., Civil Engineer II

Re: Speed Management Draft Program

Background

At the September 13, 2022 Community Services Advisory Committee (CSAC) Meeting, the Speed Management project team presented the draft vision and goals, an overview of the engagement process, and an initial approach to the Speed Management Program. The associated memo, dated September 6, 2022 is attached for reference. CSAC discussed the project and scheduled a review of the draft program for discussion at the November 8, 2022 CSAC meeting.

Vision and Goals

The vision and goals of the Speed Management Program addresses comfort and safety for all road users across Dublin including the most vulnerable. Below is the draft vision statement, which was reviewed at the September 13, 2022 CSAC meeting:

"The Speed Management Program will provide a framework for a **data-driven** approach to speed management. The program goals and strategies focus on **creating safe** and **comfortable streets** for **all road users** across Dublin including people **walking** and **rolling**."

Of the five draft goals presented to CSAC at the September 13, 2022 meeting, two will be carried to the Vison Zero program and the following three are proposed to be advanced with the Speed Management Program:

1. Reduce traffic-related fatalities and serious injuries in the City of Dublin for all roadway users, including those walking and rolling.
2. Reduce excessive speeding across Dublin. Excessive speeding is defined as traveling more than 15 mph over the speed limit.
3. Develop strategies to address speeding concerns on Dublin streets.

Proposed Speed Management Program

Speeding concerns will fall into one of three categories as proposed in the Speed Management Program. Speed data will be collected when there is a resident or City staff concern. Based on data collected, staff will determine the appropriate speed management category by calculating the eighty-fifth (85^{th}) percentile speed minus the posted speed and/or identifying results that have more than one percent of traffic traveling at excessive speeds. These categories are defined on page 2 and will be used to select context appropriate speed management solutions.

- Category 1: 85th Percentile Minus Posted Speed = 1 to 5 mph
- Category 2: 85th Percentile Minus Posted Speed = 6 to 10 mph
- Category 3:
    - 85th Percentile Minus Posted Speed = More than 10 mph
    - Or one percent of motorists are traveling more than 15 mph over the posted speed limit

Proposed Speed Management Program Steps

The proposed program uses a three step process for each speeding concern received:

1. Collect data
2. Review and evaluate results and determine speed management category
3. Use the speed management toolbox and implementation guide to select appropriate solutions

Step 1. Collect data

A resident can submit a speed management request through any format, such as the GoDublin app, email, website or phone. The resident will be notified by staff that the speed management process has been initiated.

Additionally, City staff may identify a speeding concern that can include, but is not limited to: a review of fatal and serious injuries crashes on a route within the past five (5) years; a Police Maintenance Zone; a review of speed citation data; a review of speed-related crashes, etc.

Speed data will be gathered in response to both request types. Data collected within the past eighteen (18) months will be considered current, but speed data may be collected again if there has been a change in condition, such as to the roadway network or nearby development. Speed surveys (using Stealth Stat radar or other technologies) and connected vehicle technologies available at certain signalized intersections will be used to collect speed data.

Step 2. Evaluate results and determine the speed management category as defined above.

Every odd month (January, March, May, etc), staff will publish results from recently completed speed surveys with the identified speed management category. Residents that initiated requests will be notified.

Step 3. Use the speed management toolbox and implementation guide to select appropriate solutions

The speed management toolbox, described below, will be used to identify appropriate solutions for each speed management category. Category 1 and Category 2 streets will be assigned speed management solutions that can be implemented by the Division of Transportation & Mobility or the Police Department. City staff will update the Speed Management web page with the selected speed management solution for Category 1 and Category 2 projects quarterly, or sooner if possible. If a route qualifies for a speed management solution, the resident who initiated the request will be notified of the selected solution and an estimated date for implementation.

Category 3 streets will be reviewed on a case-by-case basis to determine the appropriate speed management solution. These solutions will likely require specific funding through the Capital Improvements Program or other source. Residents who initiated requests will be notified.

Category 3: Case-by-Case Review Process

1. Implement appropriate Category 2 solutions prior to implementing Category 3 solutions to determine if the Category 2 solutions resolve the issue. If the issue is not resolved, staff will determine the appropriate Category 3 solution.

2. Conduct a road safety audit or corridor study and engage with neighborhood residents, city staff, emergency services and other stakeholders to understand the speeding and safety issues. Engagement should consider all modes including people walking, bicycling, driving, accessing transit, etc.

3. Select speed management solutions from the implementation guide based on street function and street type. Assess the overall expected crash reduction and speeding reduction with crash modification factors using national, state or local resources to determine if selected solutions are likely to meet the project goals.

4. Seek neighborhood feedback on recommended speed management plan.

5. If necessary, staff will determine the appropriate funding source and submit project for funding consideration, through the Capital Improvements Program or other methods. Staff will also take advantage of maintenance and operations opportunities to consolidate design and construction activities.

Proposed Speed Management Toolbox

Category 1 Solutions

Speed Results: 85th percentile minus posted speed = 1 to 5 mph

Public Awareness Campaigns can be messaged through a variety of communication tools such as social media, email, fliers, newsletters, and signs to help others understand how small changes can make a big difference.

Mobile Speed Trailers can be moved to requested locations by the Police Department to increase driver awareness and improve speed limit compliance.

Similarly, **Rotating Driver Feedback Signs** can be placed on residential streets for two to four week periods.

Category 2 Solutions

Speed Results: 85th percentile minus posted speed = 6 to 10 mph

Public Awareness Campaigns, Mobile Speed Trailers and **Rotating Driver Feedback Signs** can be used, as applied in Category 1.

Permanent Driver Feedback Signs may be considered on Non-Residential Streets with a presence of fatal or severe injury pedestrian/bicycle crashes within the past 5 years, and/or within 500-feet of a high presence of vulnerable users, a school, community center, or community parks.

Police Observations and Engagement with Community Members can improve driving behaviors, particularly within neighborhoods. Officers observe the driving conditions in a marked police vehicle, speak with resident that initiated the request, and may lend out a handheld radar or laser speed reader, as resources allow.

Street Width Reduction Using Pavement Markings visually narrows the roadway, and helps to reduce speeds. This can be done in a variety of ways, including marking on-street parking spaces (as shown in the example below) or by adding a wide edge line to any street type, including curb and gutter.

Stamped and Colored Asphalt can be used for emphasizing crosswalks or pavement other areas.

Category 3 Solutions

Speed Results:

- 85th percentile minus posted speed = More than 10 mph
- Or one percent of motorists are traveling more than 15 mph over the posted speed limit

Review and implement appropriate Category 2 solutions before considering the Category 3 solutions below.

High Visibility Enforcement can be considered to provide awareness and improve speed compliance.

Signs and Markings including additional speed limit signs and words on pavement, such as 25 MPH markings can be applied to improve driver awareness.

Horizontal Measures that change curb lines and reduce pavement width to reduce speeds can include chicanes, traffic circles, roundabouts, landscaped medians, and curb extensions. These features also improve conditions for pedestrians and other vulnerable users by reducing their exposure to traffic.

Pavers or **Stamped and Colored Asphalt** can be used to add emphasis to crosswalks or delineate parking lanes. Changing the material of a parking area will visually narrow the adjacent travel lane.

Street Width Reductions may include reducing the lane width or number of lanes by adding pavement markings or physically narrowing the pavement. Narrower pavement generally improves speed compliance.

Technology Solutions such as speed limiting signal timings, automated data collection tools, along with existing and emerging technologies can be considered. Innovations in this area may allow the City to provide targeted mailings to remind drivers to watch their speed. Connected Dublin initiatives may also be integrated, as opportunities allow.

Vertical Deflections

As a part of the public engagement process for this project, the City has been asked again to consider the use of vertical deflections such as speed humps or speed cushions. These measures have been controversial when used in the past. This tends to be the first measure that residents consider when requesting physical measures, but there are tradeoffs to be weighed with this solution.

Research has shown that when vertical measures are spaced between 250 to 500 feet apart, driving speeds tend to stay within a 20 to 30 mph range. This means they are only effective when speeds are consistently over 30 mph prior to the treatment, which is why this solution is only a consideration for Category 3.

Properly installed and maintained, vertical deflections can be an effective method of reducing vehicle speeds through residential areas. However, speed humps can make emergency vehicle access more difficult, as it slows their progress to those in need, and also can make traveling over these types of measures painful and uncomfortable for the injured or ill person being transported. Motorcycles and bicycles must also use extra care when crossing vertical measures. Speed management solutions constructed most recently in Dublin have been horizontal traffic calming measures, such as pavement narrowing or median additions, to avoid these concerns.

A similar solution that has less of an impact on emergency vehicles are speed cushions. Speed cushions are a modified speed hump that has been divided into sections to allow vehicles with a larger wheel bases, such as a fire truck or ambulance, to straddle them. Dublin does not have experience with speed cushions, but staff anticipates they may be difficult for snow removal, as the plow blades won't be able to clear the lower portions. The City's Public Service Division has indicated that salt would eventually work to clear ice and snow in the gap. Dirt and debris, however, is also anticipated to collect in the gaps.

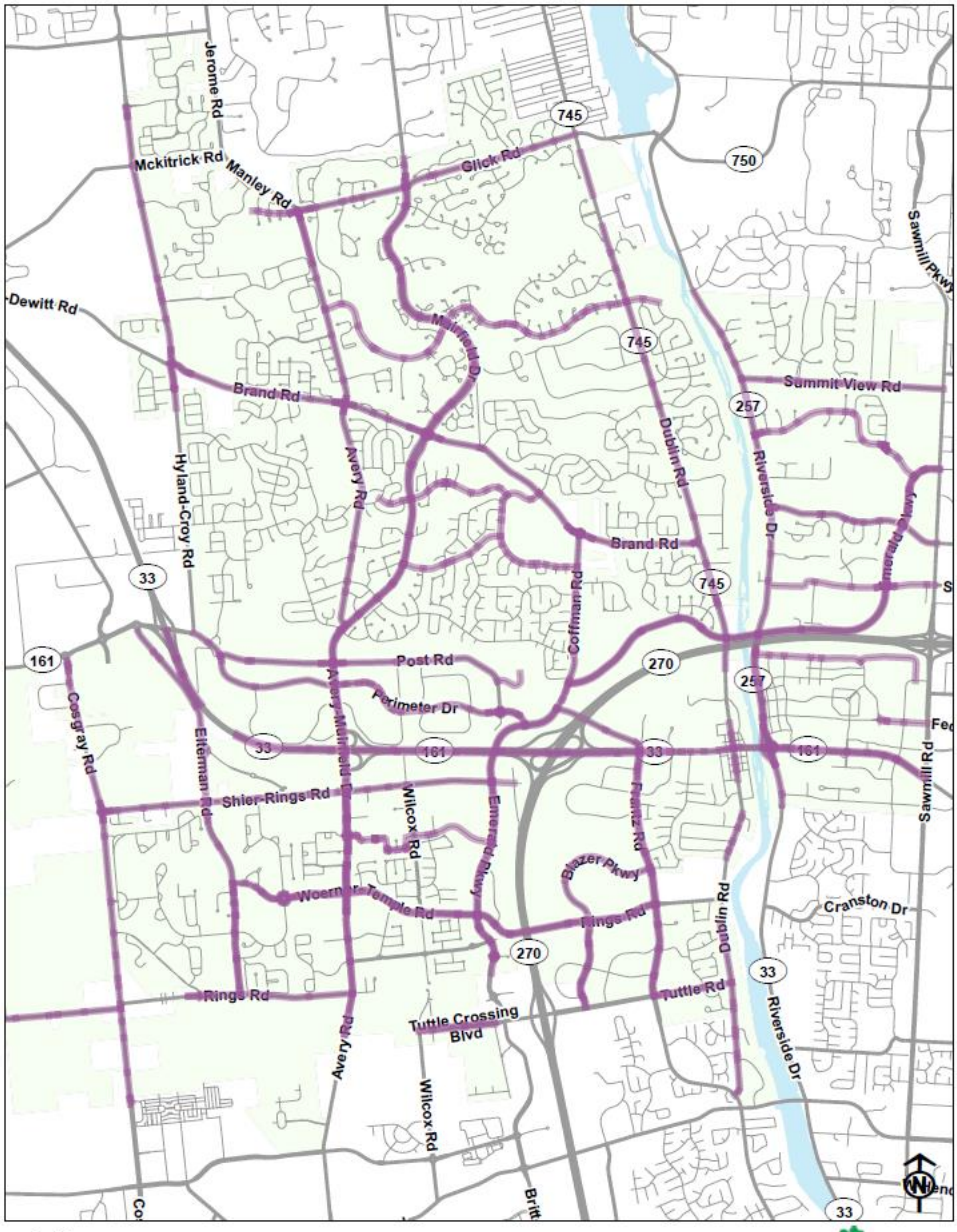

Speed Cushion

Other considerations with vertical measures are aesthetics and perceptions. Vertical measures require signing and striping, which some residents consider unattractive. Speed humps can increase noise levels (10 to 20 decibels) in the immediate area due to braking and acceleration, which must be tolerated by nearby residents day and night as vehicles travel the roadway. Some residents feel speed humps may negatively impact property values, and therefore, are not supportive of installations.

If any vertical measures are considered, staff does not recommend this application be permitted on any ineligible streets or on routes with speed limits of 30 mph or higher.

Ineligible Streets

The Federal Highway Administration (FHWA) and the Institute of Transportation Engineers (ITE) recommend not installing vertical measures on roadways that are primary or routine emergency vehicle routes, or on streets with public transit. The following map shows the streets in Dublin that do not qualify for most of the horizontal measures or any new vertical deflections listed in Category 3 of the Speed Management Program, but other types of solutions are possible, including, but not limited to, technology, pavement markings, striping, and/or high visibility enforcement. Some of these routes have existing measures that do not need to be removed, but will not receive additional measures. The list was developed in conjunction with the Washington Township Fire Department and the City of Dublin Police Department.



Ineligible Streets
City of Dublin Speed Management Program

Proposed Speed Management Implementation Guide

The implementation guide should be used to evaluate if a solution is appropriate for the street environment, using the functional classification, special street type (emergency or transit route), and speed management category, based on the measured data. The chart is also a reference for the overall expected speed reduction.

Speed Management Measure	Street Function			Street Type		Speed Management Category			Estimated Speed Reduction*
	Major Arterial	Minor Arterial or Collector	Local	Ineligible Routes	Transit Route	Category 1	Category 2	Category 3	
Speeding Monitoring, Awareness, and Education									
Public Awareness Campaigns	🟢	🟢	🟢	🟢	🟢	✓	✓		-
Police Mobile Speed Trailers	🟢	🟢	🟢	🟢	🟢	✓	✓		2-7mph
Rotating Driver Feedback Sign	🟢	🟢	🟢	🟢	🟢	✓	✓		2-7mph
Permanent Driver Feedback Sign	🟢	🟢	🟢	🟢	🟢		✓		2-7mph
Police Observations and Engagement with Community Members	🟢	🟢	🟢	🟢	🟢		✓		-
High Visibility Enforcement & Education	🟢	🟢	🟢	🟢	🟢			✓	-
Pavement Treatments, Pavement Markings and Technology									
Pavers	🔴	🟢	🟢	🟢	🟢			✓	3-7 mph (2)
Parking Lane Pavers	🟡	🟢	🟢	🟢	🟢			✓	-
Pavement Marking Messages (Eg. "SLOW", "XX MPH", etc.)	🟡	🟢	🟢	🟢	🟢			✓	1-3mph
Signal Timing	🟢	🟢	🟢	🟢	🟢			✓	-
Horizontal Measures									
Chicane	🔴	🟢	🟢	🟡	🟡			✓	3-9mph
Traffic Circle	🔴	🟡	🟢	🟢	🟡			✓	4mph
Roundabout	🟢	🟡	🟢	🟢	🟢			✓	8-14mph
Vertical Deflection									
Speed Cushion	🔴	🟡	🟢	X	🟡			✓ (posted 25 mph or lower)	5-7mph
Street Width Reduction or Visual Narrowing									
Street Width Reduction or Delineation using Pavement Markings	🟢	🟢	🟢	🟢	🟢		✓		1-4mph
Curb Extensions	🔴	🟡	🟢	🟡	🟡			✓	1-4mph
Median Island	🟢	🟢	🟢	🟡	🟢			✓	3-8mph
Landscaped Median	🟢	🟢	🟢	🟡	🟢			✓	3-8mph
On-Street Parking	🟢	🟢	🟢	🟢	🟢			✓	1-4mph
Reduce Number of Lanes	🟡	🟡	🟢	🟡	🟡			✓	1-4mph (3)
Reduce Lane Width	🟡	🟡	🟢	🟡	🟡			✓	1-4mph

Legend	
🟢	Speed Management measure is likely appropriate
🟡	Review and coordinate with WTFD, COTA or other agencies; Speed Management measure may be appropriate
🔴	Speed Management measure is likely inappropriate
X	City policy is to not use in this location

(1) Based on case studies from Engineering Speed Management Countermeasures: A Desktop Reference of Potential Effectiveness in Reducing Speed: https://safety.fhwa.dot.gov/speedmgt/ref_mats/eng_count/2014/eng_ctm_spd_14.pdf

(2) Speed reduction depends on paver type (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6801926/)

(3) Case studies are all based on a 4 to 3 lane conversion. The speed reduction for lane removals for other scenarios may differ.

Discussion Questions:

1. Is CSAC supportive of the Vision Statement and Goals?

2. Staff is proposing speed management requests be submitted via the GoDublin app, email, website or phone. Are there any other types of communication CSAC would like to recommend in Step 1 for identifying a speed concern?

3. Is CSAC supportive of the speed management strategies included in Steps 1 - 3 of the proposed Speed Management Program (toolbox and implementation guide)?

4. Is CSAC supportive of recommending the Speed Management Program to City Council?

Recommendation

Staff is requesting CSAC discussion on the presented questions regarding the Speed Management Program from CSAC members. After this discussion, staff requests a recommendation from CSAC for staff to incorporate any changes and advance the proposed Speed Management Program to City Council for their review and consideration for adoption.

SPEED MANAGEMENT PROGRAM

The vision and goals of the Speed Management Program addresses comfort and safety for all road users across Dublin including the most vulnerable.

Speed Management Categories

Speeding concerns will fall into one of three categories in this Program. Staff will determine the appropriate speed management category by calculating the eighty-fifth (85^{th}) percentile speed minus the posted speed and/or identifying results that have more than one percent of traffic traveling at excessive speeds. These categories will be used to select context appropriate speed management solutions as defined below:

- Category 1: 85^{th} Percentile Minus Posted Speed = 1 to 5 mph
- Category 2: 85^{th} Percentile Minus Posted Speed = 6 to 10 mph
- Category 3:
    - 85^{th} Percentile Minus Posted Speed = More than 10 mph
    - Or one percent of motorists are traveling more than 15 mph over the posted speed limit

Proposed Speed Management Program Steps

This Program uses a three step process for each speeding concern received.

1. Collect data
2. Evaluate results and determine speed management category
3. Use the speed management toolbox and implementation guide to select appropriate solutions

Step 1. Collect data

Speed data will be collected when there is a resident or City staff concern.

- A resident request
    - Can be submitted through any format, such as the GoDublin app, email, website or phone.
- A city staff concern can include, but is not limited to:
    - Roadway has been identified as a high crash corridor based on a review of fatal and serious injuries crashes within past five (5) years,
    - Police Maintenance Zone,
    - Review of speed citation data,
    - Review of speed-related crashes
- Speed data will be gathered in response to both request types. Data collected within the past eighteen (18) months will be considered current, if there hasn't been a change to the roadway network or development in the area.

Step 2. Evaluate results and determine the speed management category

Evaluate results and determine the speed management category as defined in the Speed Management Categories section.

Every odd month (January, March, May, etc), staff will publish results from recently completed speed surveys with the identified speed management category. Residents who initiated requests will be notified.

Step 3. Use the speed management toolbox and implementation guide to select appropriate solutions

The speed management toolbox will be used to identify appropriate solutions for each category of request. The speed management toolbox and implementation guide will be maintained and updated by the Division of Transportation & Mobility.

Category 1 and Category 2 will be assigned speed management solutions that can be implemented by the Division of Transportation & Mobility and Police.

- City staff will update the Speed Management webpage with the selected speed management tool for Category 1 and Category 2 projects every quarter, or sooner. If a route qualifies for a speed management solution, the resident who initiated the request will be notified of the selection solution, and an estimated date for implementation.

Category 3 streets will be reviewed on a case-by-case basis to determine the appropriate speed management solution. These solutions will likely require specific funding through the Capital Improvements Program or other sources. Residents who initiated requests will be notified.

1. Implement appropriate Category 2 solutions prior to implementing Category 3 solutions to determine if the Category 2 solutions resolve the issue. If the issue is not resolved, staff will determine the appropriate Category 3 solution.

2. Conduct a road safety audit or corridor study and engage with neighborhood residents, city staff, emergency services and other stakeholders to best understand the speeding and safety issues. Engagement should consider all modes including people walking, bicycling, driving, accessing transit, etc.

3. Select speed management solutions from the implementation guide based on street function and street type. Assess the overall expected crash reduction and speeding reduction with crash modification factors using national, state or local resources to determine if selected solutions are likely to meet the project goals.

4. Seek neighborhood feedback on recommended speed management plan.

5. If necessary, determine appropriate funding source and submit project for funding consideration, through the Capital Improvements Program or other source. Staff will also take advantage of maintenance and operations opportunities to consolidate design and construction activities.

Ineligible Streets

The map of ineligible streets included in Resolution Number ##-23 shows the streets in Dublin that do not qualify for most of the horizontal measures or any new vertical deflections listed in Category 3 of the Speed Management Program, but other types of solutions are possible. Some of these routes have existing measures that do not need to be removed, but will not receive additional measures. The list was developed in conjunction with the Washington Township Fire Department and the City of Dublin Police Department.

City of Dublin
OHIO, USA

Speed Management Program

DIVISION OF TRANSPORTATION AND MOBILITY

November 8, 2022

Agenda

1. Vision Statement and Goals
2. Proposed Program
3. Engagement Process
4. Discussion Questions

Vision and Goals

Vision

The Speed Management Program will provide a framework for a **data-driven** approach to speed management. The program goals and strategies focus on **creating safe** and **comfortable streets** for **all road users** across Dublin including people **walking** and **rolling**.

Proposed Goals

1. Reduce traffic-related fatalities and serious injuries in the City of Dublin for all roadway users, including those walking and rolling.
2. Reduce excessive speeding across Dublin. Excessive speeding is defined as traveling more than 15 mph over the speed limit.
3. Develop strategies to address speeding concerns on Dublin streets.

Proposed Program

Responding to Best Practices and Feedback

Best Practices

- Related Programs and Tools
  - Case Studies (ex: Austin Speed Management Program & Vision Zero)
  - National Guides
    - FHWA
    - ITE
    - NACTO

City Staff

- Clear and simple program that is easy to message to residents.
- Resources are limited for data collection and project implementation.
- Set realistic expectations for residents.

The Public

- Safety
- Interest in enforcement and physical measures
  - Speed humps

Proposed Speed Management Program

Speed Management Categories

Category 1

85th Percentile Minus Posted Speed = 1 to 5 mph

Category 2

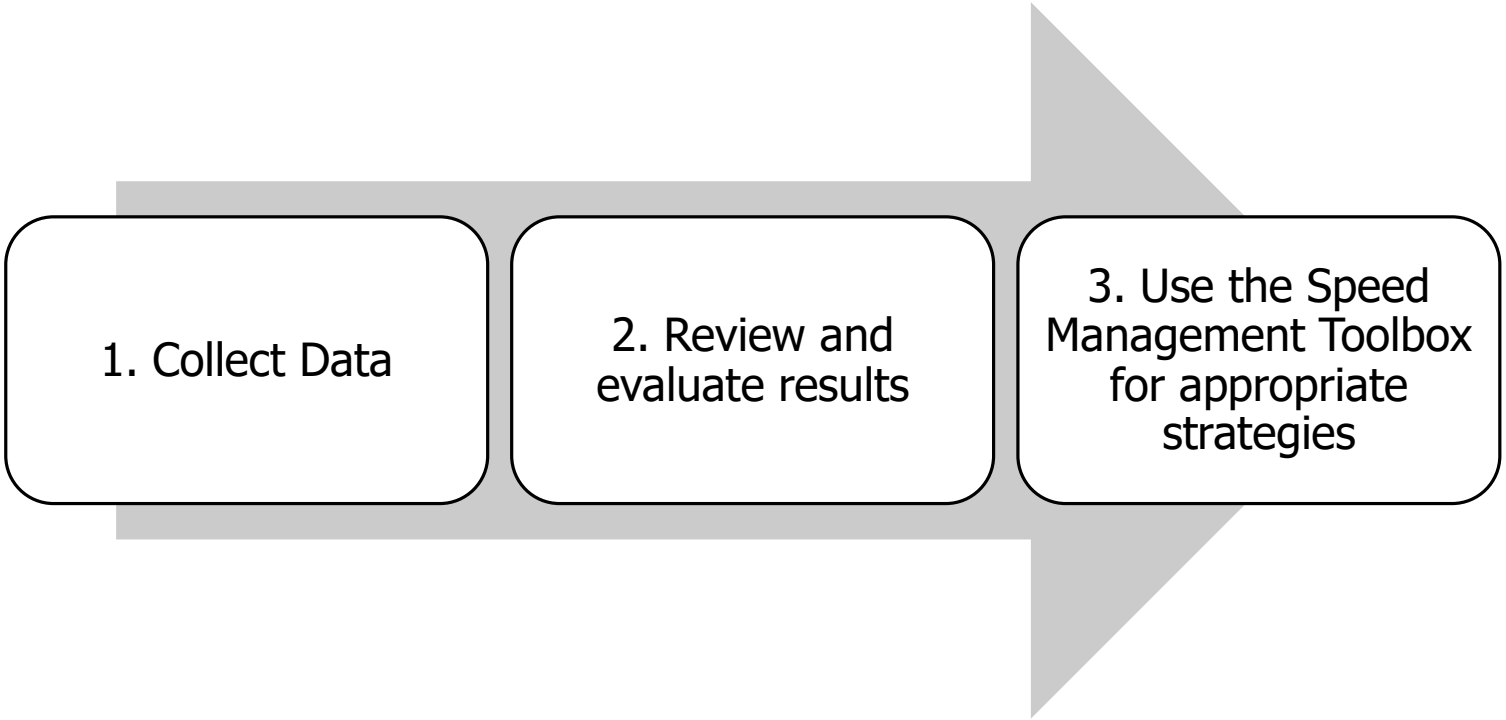
85th Percentile Minus Posted Speed = 6 to 10 mph

Category 3

85th Percentile Minus Posted Speed = 10+ mph

or 1% of motorists are traveling more than 15 mph over

Proposed Speed Management Program Steps

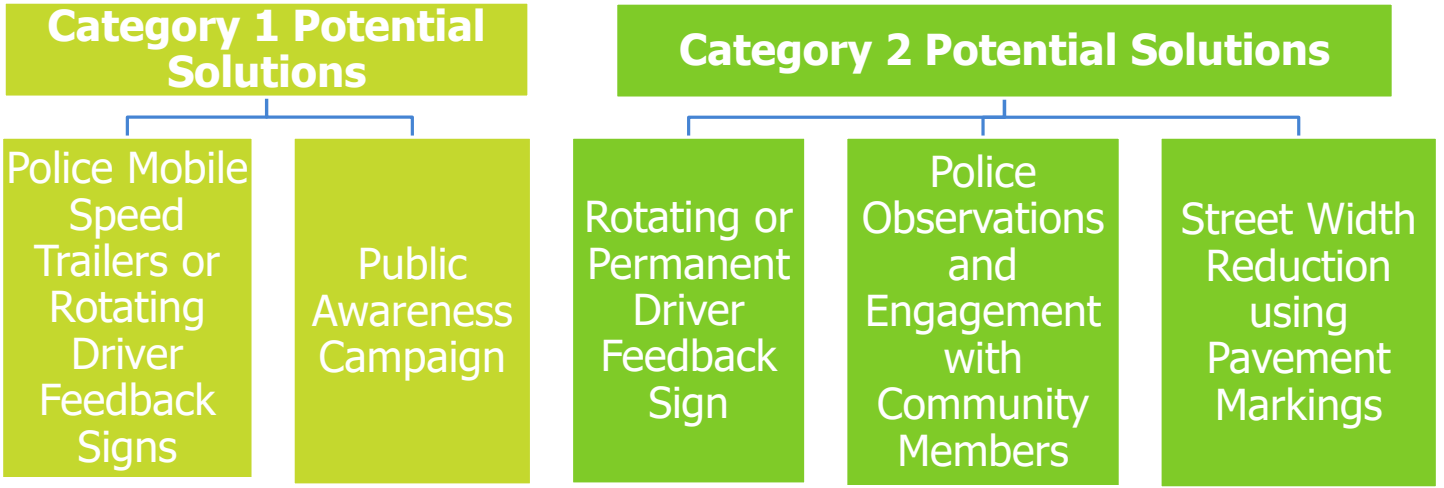


Step 1: Collect Data

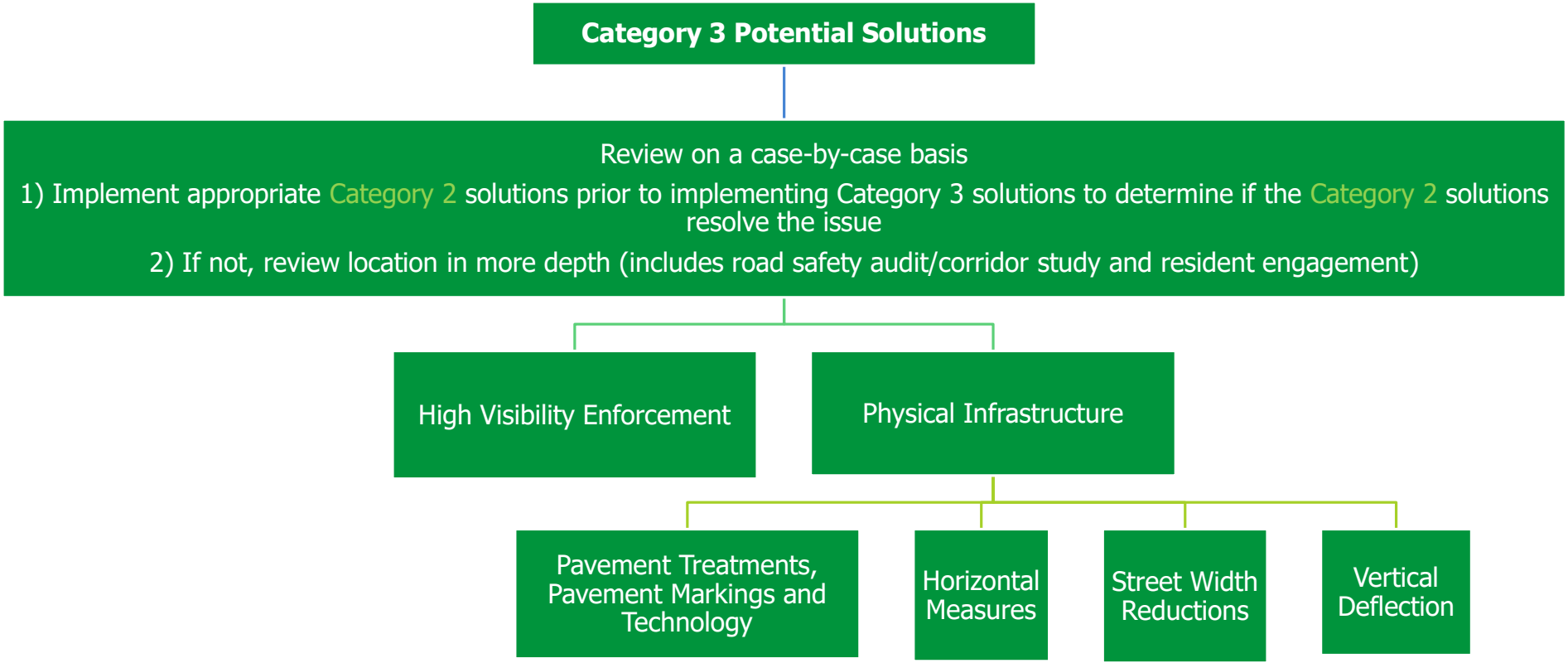
- **Resident request:**
  - Can be submitted through any format such as the GoDublin app, by email, website or phone
- **City staff request,** examples include:
  - Review of fatal and serious injuries crashes within past 5 years
  - Police Maintenance Zone
  - Review of citation data
  - Speed-related crashes

- Speed data will be gathered in response to both request types
- Eighteen (18) months will be considered as current
- Speed data may be collected again if there has been a change in condition

Steps 2 and 3: Evaluate Results and Select Appropriate Solutions



Steps 2 and 3: Evaluate Results and Select Appropriate Solutions



Category 1 Solutions

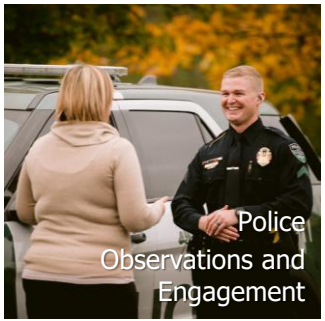
85th percentile minus posted speed = 1 to 5 mph

- Implementers: Department of Transportation & Mobility and Police

Category 2 Solutions

85th percentile minus posted speed = 6 to 10 mph

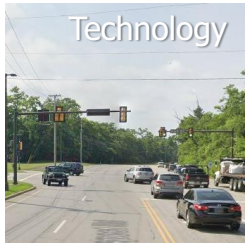
- Implementers: Department of Transportation & Mobility and Police



Category 3 Solutions

Reviewed on a case-by-case basis

- Requires additional study (example: corridor study, road safety audit)
- Additional funding required



Driver Feedback Signs

Rotating Driver Feedback Sign

- **Placement:** Residential Streets
- **Duration:** 2 to 4 weeks (resources permitting)

Rotating Driver Feedback Sign

Permanent Driver Feedback Sign

- **Placement:**
  - Non-Residential Streets
  - Streets with a presence of FSI pedestrian/bicycle crashes within the past 5 years
  - Within 500’ of a school, community center or community park

Permanent Driver Feedback Sign

Speed Humps and Cushions

Effectiveness

- Research has shown that when vertical measures are spaced between **250 to 500 feet, driving speeds stay within a 20 to 30 mph.**

Speed Hump on Sells Mill Drive

Speed Cushion

Vertical Deflection and Emergency Service Vehicle Delay

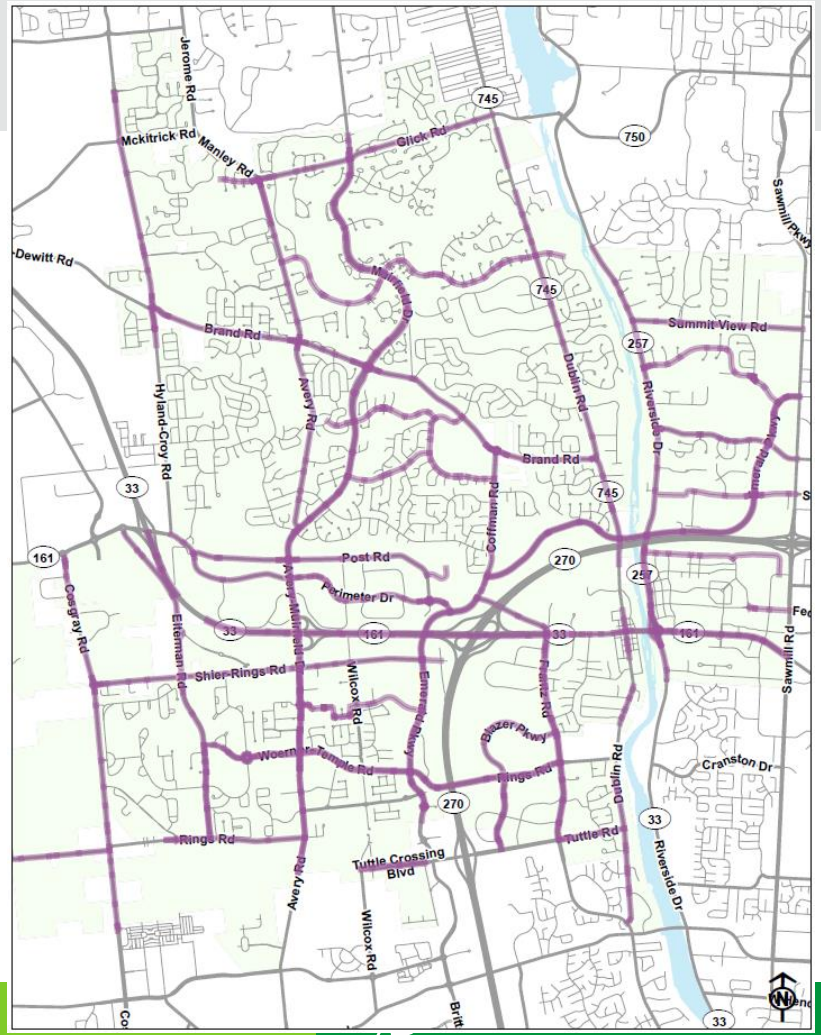
- Numerous studies summarized by FHWA show that delay can range between 0 – 10 seconds for vertical deflections:
  - Between 1.0 and 9.4 seconds of delay per vehicle per speed hump
  - Between 0 and 1 second of delay per vehicle per speed cushion

Other Considerations

- Increase noise levels
- Property value impact perception
- Require signing and striping

Ineligible Routes

- **Appropriateness based on Special Use**
  - Designated Emergency Routes
  - Transit Routes
  - Some Category 3 solutions inappropriate for primary emergency response routes (example: speed cushions)



City of Dublin
OHIO, USA

Implementation Guide

Speed Management Measure	Street Function			Street Type		Speed Management Category			Estimated Speed Reduction*
	Major Arterial	Minor Arterial or Collector	Local	Ineligible Routes	Transit Route	Category 1	Category 2	Category 3	
Speeding Monitoring, Awareness, and Education									
Public Awareness Campaigns	●	●	●	●	●	✓	✓		-
Police Mobile Speed Trailers	●	●	●	●	●	✓	✓		2-7mph
Rotating Driver Feedback Sign	●	●	●	●	●	✓	✓		2-7mph
Permanent Driver Feedback Sign	●	●	●	●	●		✓		2-7mph
Police Observations and Engagement with Community Members	●	●	●	●	●		✓		-
High Visibility Enforcement & Education	●	●	●	●	●			✓	-
Pavement Treatments, Pavement Markings and Technology									
Pavers	●	●	●	●	●			✓	3-7 mph (2)
Parking Lane Pavers	●	●	●	●	●			✓	-
Pavement Marking Messages (Eg. "SLOW", "XX MPH", etc.)	●	●	●	●	●			✓	1-3mph
Signal Timing	●	●	●	●	●			✓	-
Horizontal Measures									
Chicane	●	●	●	●	●			✓	3-9mph
Traffic Circle	●	●	●	●	●			✓	4mph
Roundabout	●	●	●	●	●			✓	8-14mph
Vertical Deflection									
Speed Cushion	●	●	●	X	●			✓ (posted 25 mph or lower)	5-7mph
Street Width Reduction or Visual Narrowing									
Street Width Reduction or Delineation using Pavement Markings	●	●	●	●	●		✓		1-4mph
Curb Extensions	●	●	●	●	●			✓	1-4mph
Median Island	●	●	●	●	●			✓	3-8mph
Landscaped Median	●	●	●	●	●			✓	3-8mph
On-Street Parking	●	●	●	●	●			✓	1-4mph
Reduce Number of Lanes	●	●	●	●	●			✓	1-4mph (3)
Reduce Lane Width	●	●	●	●	●			✓	1-4mph


Discussion Questions

Discussion Questions

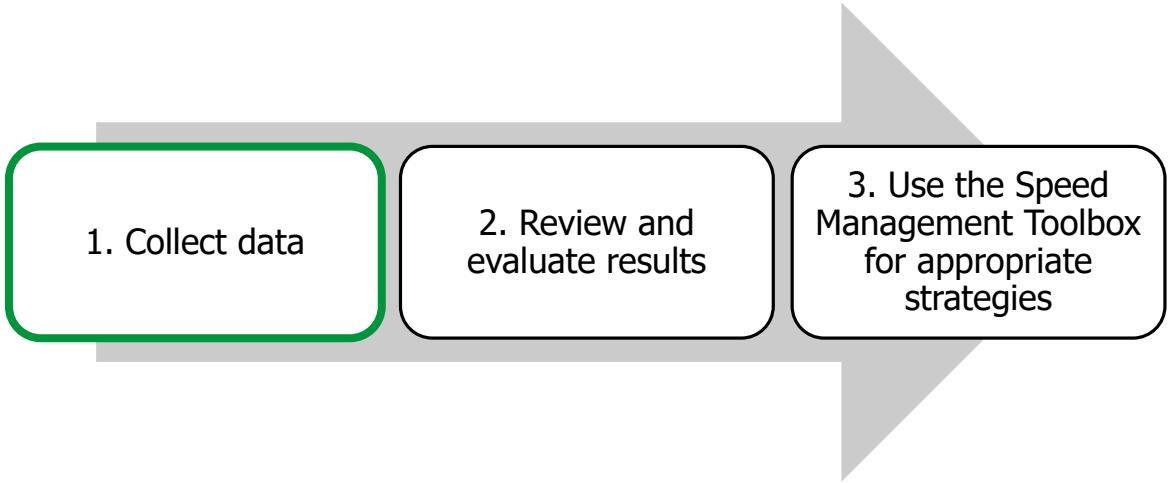
1. Is CSAC supportive the Vision Statement and Goals?

The Speed Management Program will provide a framework for a **data-driven** approach to speed management. The program goals and strategies focus on **creating safe** and **comfortable streets** for **all road users** across Dublin including people **walking** and **rolling**.

1. Reduce traffic-related fatalities and serious injuries in the City of Dublin for all roadway users, including those walking and rolling.
2. Reduce excessive speeding, traveling more than 15 mph over the speed limit, across Dublin.
3. Develop strategies to address speeding concerns on Dublin streets.

Discussion Questions

2. **Speed related requests can be submitted via the GoDublin app, email, website or phone. Are there any other types of communication CSAC would like to recommend in Step 1 for identifying a speed concern?**



Discussion Questions

3. **Is CSAC supportive of strategies included in Steps 1-3 (Toolbox and Implementation Guide)?**

4. **Is CSAC supportive of recommending the Speed Management Program to City Council?**

Questions?

City of Dublin

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Memo

To: Members of Community Services Advisory Committee

From: Dana L. McDaniel, City Manager

Date: September 6, 2022

Initiated By: Jean-Ellen Willis, P.E., Director of Transportation & Mobility
Tina Wawszkiewicz, P.E., Civil Engineer II

Re: Speed Management Program Review and Update

Background

Travel speed concerns are common feedback Dublin staff receive from residents. These community safety concerns prompted Dublin leadership to initiate an update of the Traffic Calming Program to a Speed Management Program to better address safety concerns throughout the City. The Speed Management Program will provide a framework for a data-driven approach to speed management and context sensitive solutions to address speeding based on national best practices. The program goals and strategies focus on creating safe and comfortable streets for all road users across Dublin including people walking and rolling. The Speed Management Program will also provide a foundation for Dublin's future Vision Zero initiative.

Project Timeline and Background

Timeline

As part of this planning process the project team has researched related plans and policies and best practices, developed draft strategies and ideas to reduce speeding, and initiated the public engagement phase. Next steps include developing a more detailed approach to the Speed Management Program to present to CSAC in October and presenting to City Council in early 2023 before finalizing the program (Figure 1).

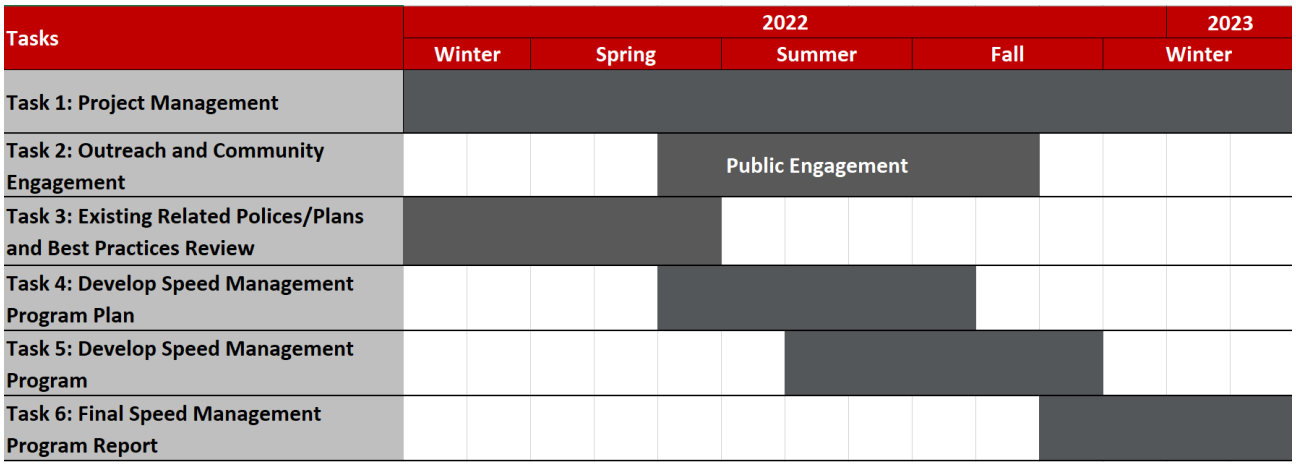

Figure 1: Project Timeline.

Why speeding is important

Speeding is important to evaluate and address because of its impact on safety. As speeds increase, the likelihood of a crash increases. Along with a higher likelihood of crashes, higher operating speed brings a higher risk of fatal or serious injuries. If a person walking is hit by a motorist traveling 20mph, there is an 18 percent chance that the crash will result in a serious injury or death, and if that motorist's speed is instead 30mph, the risk of serious injury or death more than doubles (Figure 2).

Figure 2: Impact Speed and a Pedestrian's Risk of Severe Injury or Death. Source: *Data originates from Tefft, B.C. (2011). Impact Speed and a Pedestrian's Risk of Severe Injury or Death (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety, which can be found here: https://aaafoundation.org/impact-speed-pedestrians-risk-severe-injury-death/.*

Vision and Goals

The vision and goals of the Speed Management program focuses on addressing all road users across Dublin including our most vulnerable roadways users, people walking and rolling, people biking or using mobility devices. Below is the draft vision statement:

*"The Speed Management Program will provide a framework for a **data-driven** approach to speed management. The program goals and strategies focus on **creating safe** and **comfortable streets** for **all road users** across Dublin including people **walking** and **rolling**."*

Engagement Process

To enlist ideas, strategies, and feedback from the community, the project team is seeking engagement from the community and has reached over 350 people so far. Engagement efforts include an online survey, two pop-up events, a public meeting, neighborhood outreach emails, and the Dublin News Now publication. The online survey remains active and can be found here: http://dublinohiousa.gov/speedmanagement.

Initial themes that appear to be resulting from the engagement activities include:

- Bridge Park and other local areas were identified as key locations for speed management.
- Residents expressed a desire for lower speed limits, particularly on Riverside Drive.
- Community members stated that they would like to see more pedestrian facilities, bicycle facilities, and safer crossings.
- Residents also expressed that they wanted to see more police presence and enforcement.
- In general, respondents like the connectivity and separated bike and pedestrian facilities in Dublin.
- Community members in general supported ideas to reduce speeding in Dublin with the most interest in signs, high visibility enforcement, signals and technology, surface treatments, and roundabouts.
- Community members have commented that speed humps/bumps or speed cushions should be considered when choosing possible solutions.
- Other community members also commented that speeding is not an issue in Dublin and do not believe a good use of Police time.

Figure 3: Pop-Up event at Dublin Market.

Approach

The approach contemplates breaking the process into three distinct steps:

1. Collect data using speed surveys and connected vehicle technologies available at certain signalized intersections.
2. Review and evaluate the results of the data collected to determine the severity of the issue based on thresholds established through this project.
3. Use the new Traffic Calming Toolbox for appropriate strategies to implement. The new Traffic Calming Toolbox will be developed as part of this project.

Possible Solutions

We can address speeding in a variety of ways that all seek to address behavior change. Solutions identified for consideration can include the following:

- Temporary Driver Feedback Sign Rotation Program, Permanent Driver Feedback Signs, and Police Mobile Speed Trailers
- Pavement markings, for example to reduce lane widths or emphasize speed limits
- Public awareness campaigns

- Police observations and/or enforcement
- Pavement treatments and signal timings
- Horizontal measures, for example, roundabouts, chicanes, medians, curb extensions
- Street width reduction and visual narrowing
- Vertical deflection, for example speed humps/bumps, and speed cushions

Attachments included with this memo for reference are listed below:

1. Traffic Calming Program History, November 9, 2021
2. Dublin, Ohio Code of Ordinances § 72.131: Traffic Calming Program
3. Traffic Calming Program Overview Handout
4. Traffic Calming Program Details Handout

Recommendation

The public engagement phase of the project is on-going. As such, staff is requesting feedback on the approach and possible solutions from CSAC members at the meeting. After this discussion, staff and the consultant team will work to analyze the data collected and available to develop the recommendations and details of the proposed Speed Management Program. This information will be reported back to CSAC at the November 8, 2022 meeting.

City of Dublin

Office of the City Manager
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Memo

To: Community Services Advisory Committee

From: Dana L. McDaniel, City Manager

Date: November 9, 2021

Initiated By: Megan D. O'Callaghan, P.E., Deputy City Manager/Chief Finance and Development Officer
Chief of Police Justin Páez
Jean-Ellen Willis, P.E., Deputy Director of Transportation & Mobility

Re: Traffic Calming Program History

Background

The City's current Traffic Calming Program was adopted by City Council in March 2004, as traffic calming projects were being discussed in the Tara Hill Drive neighborhoods. Resolution 11-04, adopting the current Program, is attached for reference. This program was updated from an earlier 1999 policy, to include additional speed and traffic volume metrics and a method to prioritize physical traffic calming projects.

During the development of the 2004 program, Washington Township Fire Department highlighted the challenges of certain elements in the 1999 program, such as transporting patients, particularly those with neck and back injuries, over speed humps or other vertical traffic calming devices. Best practices across the industry have also changed over the years, prompting this consideration for refreshing the current program.

Figure 1. Current 2004 Traffic Calming Program

Summary

The current neighborhood Traffic Calming Program steps through three stages, as summarized below and in the attached resident flier titled Traffic Calming Program:

- Stage 1 - Education & Enforcement
- Stage 2 - Engineering/Study Process
- Stage 3 - Engineering/Options & Implementation

Stage 1

When residents contact the Police Department and/or the Division of Transportation & Mobility, this initiates Stage 1 of the current Program. Each work group has a coordinated procedure to respond to an inquiry.

When Police receives the inquiry, a Community Impact Unit (CIU) Traffic Enforcement Officer is assigned to investigate the concern. The investigating officer will make contact with the resident to discuss the concern and gather any further details. Officers use different methods to address traffic concerns, such as:

- Conducting three or more targeted patrols in the complaint area to assess speed or other traffic concern patterns
- Deploying speed trailers with driver feedback signs or a message board with driver feedback capabilities to educate and remind drivers to drive safely
- Educating residents by loaning a hand-held lidar unit for a period of time to help residents understand what speeds feel like on their street
- Contacting the identified vehicle owner, if there is a single vehicle complaint
- Requesting a speed survey from Transportation & Mobility and reviewing the results with the resident

Figure 2. Police Engagement

After working through the initial request, if a consistent issue is identified or the speed survey shows results above established thresholds, a formal traffic investigation is created. The established thresholds are:

- The average speed is more than 5 mph over the posted speed limit
- The 85th percentile of all speed recorded is more than 10 mph over the posted speed limit
- More than 1% of vehicles recorded are traveling at 15 mph or more over the posted speed limit

These thresholds were developed by using information provided by the National Highway Traffic Safety Administration (NHTSA) and previous speed studies.

Additionally, CIU has identified several Maintenance Zones, which are areas that receive a minimum of three targeted patrols per week in each zone. These zones were established using crash data, traffic volumes, and the number of complaints. The current Maintenance Zones are: I-270, US 33, Bridge Park District, Brand Rd, Frantz Rd, and Muirfield Dr. In addition, Officers regularly provide targeted enforcement for school zones.

When Transportation & Mobility receives a request from residents, a similar process is used, including study of the current travel conditions, conducting a speed survey, sharing results for review by Police, and then coordination with the resident. Staff shares any additional plans for targeted patrols, speed monitoring trailers, or temporary driver feedback signs with the resident. If surveys identify driver behavior exceeds established thresholds, Police will intervene and initiate a formal traffic complaint.

Regardless of source of the request, several qualifications must be met in order to advance past Stage 1, including:

- The street must have a posted speed of 25 mph or less,
- The street must have a local or collector functional classification, right-of-way of 60-feet or less, must be a through street at least 1,000-feet long, be built to current design standards, and cannot be along a COTA bus route, and
- The street cannot be used as a critical emergency response route or contain a fire/EMS station.

The streets that do not qualify for traffic calming based on emergency response are listed below, and included in the attached resident flier titled Traffic Calming Solutions for a Safer Community:

- Avery-Muirfield Drive
- Avery Road
- Blazer Parkway
- Brand Road
- Bright Road
- Coffman Road
- Cosgray Road
- Dublin Road
- *Dublinshire/ Earlington Parkway
- Emerald Parkway
- Frantz Road
- Glick Road
- Hard Road
- Innovation Drive
- Memorial Drive
- Muirfield Drive
- Perimeter Drive
- Post Road
- Rings Road, from Frantz Rd to Woerner-Temple Rd, and west of Avery Rd
- Riverside Drive
- SR 161
- *Sells Mill Drive
- Shier-Rings Road
- Summit View Road
- Tuttle Crossing Boulevard
- Tuller Road
- Woerner-Temple Road
- Wyandotte Woods Boulevard

**These streets are restricted from additional traffic calming measures.*

Stage 2

To initiate Stage 2, a neighborhood representative submits a letter to the Division of Engineering requesting a street to be evaluated. Engineering then sends a map of the affected area, and the residents circulate a petition. The vast majority of residents need to support the petition, with 90% of the affected street (direct access) and 67% of the affected area (frontage without direct access or cul-de-sacs to the affected street) for the request to move forward.

Once the petition is verified with the required number of signatures, the City performs a comprehensive traffic study, to determine whether traffic calming is recommended. The study will determine if the street(s) meets the following criteria:

- Has a daily volume of 2,000 or more vehicles for collector streets, and 1,000 or more vehicles for local streets.
- The 85th percentile speed (the speed below which 85 percent of vehicles travel) must be 32 mph or more.
- The crash severity ratio must be above the three-year, citywide ratio of 0.21.
- The percent of non-local traffic volumes must be more than 20 percent.

The study also determines the impact to adjacent neighborhood streets and the need for in-depth analysis and collaborative neighborhood involvement.

Stage 3

Stage 3 introduces the appropriate physical measures to address the neighborhood needs. Residents have input on which traffic calming measures they prefer. Another petition is required at this stage, with the same support levels required in Stage 2, to gain concurrence on the selected traffic calming measures to be constructed. Then, funding is requested through the Capital Improvement Program for the project. After the project is constructed, a post evaluation is conducted to determine the effectiveness.

Traffic calming measures that are currently included in the program are listed below and included in the flier titled Traffic Calming Solutions for a Safer Community:

- Medians
- Chicanes
- Chokers
- Diversion
- Protected Parking
- Realigned Intersections
- Rumble Strips
- Speed Humps
- Traffic Circles

Considerations

In the years since this program was adopted, the tools and industry standards concerning neighborhood transportation have changed. There is a shift in paradigm to focus less on penalizing a driver, and more on the environment and safety of vulnerable users. The City has implemented several features, differing from traditional traffic calming measures, including shortened crosswalks, heightened awareness crossing systems, and temporary and permanent driver feedback signs. These tools improve speed compliance and increase driver awareness, to help protect vulnerable users. These measures can sometimes be installed quickly, depending on the complexity of the solution. Discretion is still needed to determine the areas that will benefit the most from these solutions, without oversaturating the transportation network, thereby reducing their effectiveness.

Figure 3. Non-Traditional Traffic Calming Features

Vision Zero

In order to build on the momentum around the safety of vulnerable users, the City is moving toward the adoption of a Vision Zero Plan. Established in Sweden in 1997, Vision Zero is a traffic safety initiative that aims to achieve a transportation system with no deaths or severe injuries. A core principle of Vision Zero is that traffic crashes are preventable. Proactive, preventative measures reduce collisions, save lives, and prevent injuries. Often, traffic 'accidents' are viewed as unavoidable, but reviewing design, policy, education, and enforcement could help significantly reduce traffic harm. Vision Zero implementation in Dublin would refocus safety for all users of public roadways rather than concentrating on the satisfactory volumes of vehicular traffic throughout the transportation system. The high priority road segments and intersections would be identified, and the City would undertake targeted design and policy interventions at these locations. Dublin residents could expect a variety of speed management methods and traffic safety education campaigns focused on driver behavior and expectations. Vision Zero would not impinge on the ability of Dublin drivers to travel by car, but would augment the safety for all users of public roadways.

City Council referred this matter to the Community Services Advisory Committee to discuss and evaluate potential updates to the current traffic calming policy. This could include consideration of environment and safety enhancements for vulnerable roadway users, high severity crash reduction, and speed management across a variety of roadway environments. A copy of the memo and minutes from the City Council Meeting are attached for reference.

Recommendation

This information is provided as background material to understand the current Program process. Staff will report back to the Community Services Advisory Committee in 2022, after a consultant is selected and further materials are prepared and ready for review by the Community Services Advisory Committee regarding revisions to this Program.

City of Dublin

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Memo

To: Members of Dublin City Council

From: Dana L. McDaniel, City Manager

Date: June 22, 2021

Initiated By: Megan D. O'Callaghan, P.E., Deputy City Manager/Chief Finance and Development Officer
Paul A. Hammersmith, P.E., Director of Engineering/City Engineer
Jean-Ellen Willis, P.E., Deputy Director of Transportation & Mobility

Re: Neighborhood Traffic Calming Program and Speed Management Review and Update

Summary

Dublin's Neighborhood Traffic Calming Program was adopted by City Council on March 15, 2004 by Resolution 11-04, replacing the previous Traffic Calming Policy dated October 1999. Both the Traffic Calming Policy (1999) and the Neighborhood Traffic Calming Program (2004) were reviewed and discussed by the Community Services Advisory Commission (CSAC) prior to City Council's consideration and adoption. The current Program, which has been in effect for 17 years, contains a defined purpose, goals and objectives, and an emphasis on education and enforcement as first steps to encourage compliance with speed limits and using appropriate driving behaviors.

The design of neighborhood level roadways to enhance traffic safety and minimize street modifications has been a consistent focus of neighborhood design since the inception of our traffic calming programs. Residents commonly inquire of Dublin staff about speed management techniques on Dublin's local level roadways. The current Program and associated materials are attached for Council's reference. The administration of Dublin's Neighborhood Traffic Calming Program is a collaboration between the Divisions of Transportation and Mobility, Engineering, Police, and Communications & Public Information.

Since 2004, new technologies and equipment have become available for use in managing traffic speeds on neighborhood level roadways. The City has also implemented several features, including shortened crosswalks, heightened awareness crossing systems, and temporary and permanent driver feedback signs. These tools focus on the safety of vulnerable users, speed compliance, and increasing driver awareness, on multiple types of routes. These measures can sometimes be installed quickly, depending on the complexity of the solution. Examples of newer techniques and technologies are speed surveys and driver feedback signs, which are less expensive and intrusive to a neighborhood than many of the infrastructure solutions described in the current Program.

Figure 1. Driver Feedback Sign and Speed Survey

Recommendation

This information about the Neighborhood Traffic Calming Program and speed management is provided for City Council's information. Staff recommends Council refer this Program to CSAC for review and discussion about any potential updates or revisions to the current Traffic Calming Program.

§ 72.131 PROCESS.

This policy is designed to provide a process through which residents can request traffic calming measures within neighborhoods.

(A) *Step 1: Education and Enforcement.*

(1) Before requesting the city's neighborhood traffic-calming program, residents should first pursue neighborhood speed-reduction options with the Division of Police Traffic Enforcement Unit. If such efforts have not been pursued, the city will advise the requesting applicant as to programs they would need to initiate prior to proceeding with a traffic-calming evaluation request. Once these options have been pursued, and if the city has determined these initiatives to be ineffective, staff will then advise the residents to proceed with the neighborhood traffic-calming program.

(2) If a neighborhood feels these strategies have been ineffective, the neighborhood may then choose to proceed to request evaluation for traffic calming measures. The neighborhood must deliver the request to the Division of Engineering. City staff will evaluate to what extent other actions have been pursued by the residents of the requesting area and determine whether these steps have been effective. If efforts, such as requests for increased enforcement, the use of a StealthStat in the neighborhood, and neighborhood speed watch programs have been used by the residents and city staff has determined them ineffective in the reduction of volume, speed, non-local, or cut-through traffic, and accidents, then the request will proceed to the next step.

(B) *Step 2: Engineering/Study Process.*

(1) *City receives request.* A request for the evaluation for traffic-calming measures may be initiated by any resident of the city. A resident/neighborhood may request an affected area be defined at any time during the year.

(2) *Pre-qualification of street.* Traffic calming measures are suitable in residential areas to manage speed, volume and cut-through traffic. Therefore, characteristics of the streets must be residential in nature. The street pre-qualifications are designed to ensure that the street segment is appropriate for considering traffic calming. Since some negative impacts can be associated with traffic- calming measures, some restrictions, in the best interest of emergency and transit services, are included on the list of pre-qualifications. Streets should meet the following standards in order to pre-qualify for traffic calming.

(a) The street has a posted speed limit of 25 mph or less;

(b) The street is classified as a local or collector on the city's thoroughfare plan;

(c) The street has a right-of-way that is 60 feet wide or less;

(d) The street has a standard curb and gutter cross section, and/or all drainage and safety concerns can be addressed to the satisfaction of the City Engineer;

(e) The street is at least 1,000 feet in length;

(f) The street is not a cul-de-sac street;

(g) The street is not a loop street within a neighborhood or subdivision;

(h) The street is not along a COTA bus route;

(i) A fire station is neither on the street nor is the street a critical emergency response route. A list of critical emergency response routes can be found at the end of this program (See Resolution No. 11-04, passed March 15, 2004); and

(j) This program applies only to existing streets. It does not apply to future roads or to new subdivision streets under construction. If an existing subdivision street is intended to be extended in the future, then it must be at least 75% complete with the termination point known.

If the street meets all of the above pre-qualification standards, the request proceeds to the next step. When appropriate, if the street does not meet all of these standards and residents still feel traffic-calming measures are necessary, staff will consider further evaluation of the street.

(3) *Affected area defined.* Once a street has met the pre-qualification standards, the affected area will then be defined. Such determination will be completed by the City Manager or the City Manager's designee.

(4) *Petition required by the city.* Following a determination of the affected area, the city will provide the base petition form to the resident(s). The resident(s) will complete the petition identifying specific issues described in the space provided on the petition to the best extent possible that the neighborhood wants to have addressed. This petition is to be circulated by the resident(s) requesting evaluation for traffic-calming measures. Only one signature per

household/property owner will be accepted. If a home is leased or rented, only the signature of the owner of the dwelling will be accepted. If an apartment complex/building(s) is located on the affected street or within the affected area, only the signature of the owner or owner's representative of the apartment complex/building will be accepted for the purposes of achieving the required percentage on the petitions. If a business is located on the affected street or within the affected area, only the signature of the owner or owner's representative of the building where the business is located will be accepted for purposes of achieving the required percentage on the petitions. There is a 12 month time limit on starting the petition process and returning a completed petition to the city for validation. In addition, the petition must be returned to the city by July 1 of each year to begin the traffic calming evaluation process that year.

(5) *Petition received by the city.* Once received, the petition will be reviewed and validated by the city. In order for the request to proceed, the petition must contain signatures from 67% of the households in the affected area and 90% of the households on the affected street. The petition must be returned to the city by July 1 of the calendar year in order begin the traffic calming evaluation process that year. Once the petition has been validated by city staff, the request will be forwarded to Council for their acceptance of the study need and the appropriation of funding for the study. This will be done on an individual request basis.

(6) *Comprehensive study completed.* There can be two stages of the comprehensive study.

(a) Stage 1: Once streets are pre-qualified, the appropriate percentages of signatures are received and validated, and City Council concurs with need to conduct the study, the city will perform a comprehensive study of the affected area. The study will be performed by a qualified professional traffic engineer. The study will include collecting speed, volume, non-local, or cut-through traffic, and accident data along the routes and analyze the effect of the traffic-calming measures on city services. The study will also examine existing traffic control measures along the street. If any existing device, such as a stop sign, is found to be unwarranted it is subject to removal regardless of whether the street receives treatment for traffic calming. The goal of Stage 1 is to determine whether traffic-calming measures are necessary on the affected street and whether Stage 2 should be implemented.

(b) Stage 2: If necessary and recommended by the Stage 1 report, the study will be expanded to determine impacts to other neighborhood streets if traffic-calming measures were installed on the affected street. Stage 2 will also identify traffic-calming options/conceptual plans for the affected street.

(7) *Street priority.* Through a point system, the data gathered in the comprehensive study will then be used to establish: whether a street receives enough points to

warrant any measures; whether localized traffic calming measures are warranted on the affected street, and whether the street warrants a traffic calming comprehensive plan and the associated street priority ranking. The point system will be according to the following criteria:

(a) Speed.

1. Two points for each 1 mph the average 85th percentile speed falls between 30-32 mph.

2. Three points for each 1 mph the average 85th percentile speed falls between 32-35 mph.

3. Five points for each 1 mph the average 85th percentile exceeds 35 mph.

4. If the average 85th percentile speed is less than 30 mph, the street will not be considered for traffic calming.

(b) Volume. Local and collector streets.

1. One point for each 100 vehicles over the number of households served by the affected street multiplied by the average number of vehicle trips per day generated by the household, as defined by the Institute for Transportation Engineers *Trip Generation Manual*, current edition. Based on subsequent program criteria, 20% is the threshold value for acceptable through trips. Therefore, the product of the number of households and the appropriate trip generation rate(s) is then to be multiplied by 1.2 to allow for an acceptable amount of through trips. The formula for calculating the acceptable volume on a roadway is this:

$^{N}\text{households} * {}^{T}\text{generation rate} * 1.2 = {}^{T}\text{total}$

Where $^{N}\text{households}$ = number of households in the affected area,

$^{T}\text{generation rate}$ = applicable trip generation rate

$^{T}\text{total}$ = total trips for affected street

2. Minus one point for each 100 vehicles below the number of households served by the affected street multiplied by the average number of vehicle trips per day generated by the household, as defined by the Institute for Transportation Engineers *Trip Generation Manual*. This number is then to be multiplied by 1.2 to allow for an acceptable amount of through trips. See equation above for calculating the acceptable amount of traffic

volume on a roadway.

(c) Cut-through traffic. One-half point for each 1% the percentage of cut-through traffic exceeds 20%.

(d) Accidents. Two points for each percent the accident-severity ratio/percentage for the street exceeds that of the citywide average over the last three years. No deduction of points will be made if the street has an accident-severity ratio/percentage less than the citywide average over the last three years. The accident severity ratio is to be calculated on a yearly basis for the preceding three years.

(e) Pedestrian generators. The street shall receive points for having each of the following:

1. Street has a school zone: 3 points

2. Street provides direct access to a city park: 2 points

3. Other public facility: 1 point

Examples include, but are not limited to: bikepath access points, tunnels, soccer fields, and municipal pools.

The points will be totaled in a chart similar to the one below. If there is more than one street that has requested traffic calming, the streets will be ranked in order from the most points to the least points in a table similar to the one found below. If a street has between 20-35 points, it may receive localized treatments. A street must have a minimum of 35 points in order to qualify for traffic-calming measures. If a street does not have enough points to qualify for traffic-calming measures, then city staff will continue to work with the residents/neighborhood with the education and enforcement components of this program.

Street Name	Street Type	Volume	85th Percentile	% Cut-Through	Volume Points	Speed Points	Cut-Through Points	Acci-dents	Pedestrian Generator	Total Points

(C) *Step 3: Engineering/Conceptual Plans & Implementation.*

(1) *Traffic-calming measures selection process.* Working with the residents in the affected area, city staff will select an appropriate type of traffic-calming measure(s) for the street. Unless determined warranted by the traffic calming evaluation process, stop signs and

traffic signals are not considered traffic-calming measures for the purpose of this program. Concurrence of 85% of the households in both the affected area and on the affected street will be required, by means of a second petition, upon the type of traffic-calming measure(s) to be implemented. Landscaping, for the purposes of this program, will be installed only as a traffic-calming measure. Additional landscaping/aesthetic treatments will be installed as determined necessary by the City Engineer and at the direction of the City Council.

(2) *Funding and installation.* Following the selection of traffic-calming measures, the street will be placed on a priority list for funding and installation. Based on the level of funding allocated for this purpose, streets shall be funded beginning with the highest ranked street. If all streets contained on the list cannot be funded during a year, the list will be carried over to the next year. Any new streets added to the list in a following year will be ranked below those already placed on the priority list. However, Council always has right to adjust priority funding based on available resources.

(Res. 42-99, passed 10-4-99; Am. Res. 11-04, passed 3-15-04)

TRAFFIC-CALMING PROGRAM

DUBLIN'S NEIGHBORHOOD TRAFFIC-CALMING PROGRAM

Dublin's Neighborhood Traffic-Calming Program is a proactive, community-based program designed to enhance the quality of life in Dublin neighborhoods and provide a safer environment for drivers, pedestrians and children. Adopted by City Council in March 2004 by Resolution 11-04, the program aims to calm traffic on local streets where speeding, accidents or non-local traffic are concerns.

Through this program residents will partner with the City of Dublin to evaluate traffic concerns in their neighborhood. While some areas in Dublin are truly in need of traffic calming, others can be addressed with solutions outside the scope of this program.

This booklet of information will help residents determine whether a street qualifies for the City's Neighborhood Traffic-Calming Program and navigate them through the process of establishing traffic calming in their neighborhood.

Should residents have further questions throughout this process or like additional information, contact the Division of Engineering at 614.410.4600.

TIMEFRAME

Depending on the situation and level of community involvement, it could take six months to two years to develop and implement a traffic-calming plan.

STAGE ONE

EDUCATION & ENFORCEMENT

Pre Traffic-Calming Solutions

There are several options residents can pursue to reduce speeding in their neighborhood before requesting traffic calming. Residents can request the following speed-reduction options for their neighborhood by calling the Police Traffic Enforcement Unit at 614.410.4807.

Speed-Monitoring Trailers

Residents can request the use of automated speed-monitoring trailers, which display to drivers their "actual" speed to encourage their compliance with speed limits. The trailers monitor traffic patterns in a given neighborhood for several days at a time. The units record the number of vehicles and speed of each vehicle. This data is used to identify traffic related problems.

Neighborhood Speed Watch

Residents who live in neighborhoods perceived to have a speeding problem are eligible to participate in this educational program. The program requires that at least two adults from the association attend a radar training session with a police instructor. Upon completion of the program, residents are eligible to borrow radar equipment to use in their neighborhoods. Reminder notices regarding speed limits are sent to motorists identified as violators. The notices are not citations, but reminders to obey the posted speed limit and the community's concern for safety.

StealthStat

Dublin's speed-measuring device called the StealthStat monitors traffic volume, average speed, high speeds and low speeds of motorists. The StealthStat collects, sorts and analyzes data using a radar unit and computer. The results are used to help the Police Department prioritize enforcement and other responsive efforts, as well as to educate the public.

Enforcement

After a traffic analysis is completed, the Police Department may respond with increased enforcement to address the issue.
Residents should be specific regarding the days and times of traffic concerns to help determine when enforcement is needed.

If the above tactics have been pursued and the Division of Engineering has determined these initiatives to be ineffective, staff will advise the residents to proceed with the Neighborhood Traffic-Calming Program.

Getting Started

Before beginning this process the City of Dublin would like to inform residents that the Neighborhood Traffic-Calming Program requires a great deal of commitment. Active citizen participation is key to the success of all traffic-calming projects. Experience in other cities has shown that traffic-calming projects installed without strong neighborhood participation are frequently unsuccessful, requiring the removal of some or all measures. This involvement instills a sense of ownership in the project once traffic-calming measures are installed. Qualifying for Dublin's Neighborhood Traffic-Calming Program requires a multi-step process that may involve evening meetings and will require petitioning door-to-door. Additionally, the street being considered must meet the following pre-qualifications to be eligible for this program:

- The street must have a posted speed of 25 mph or less
- The street must be classified as a local or collector
- The street must have a right-of-way that is 60 feet or less
- The street must have a standard curb and gutter, and/or all drainage and safety features need to be current with City design criteria
- The street must be at least 1,000 feet in length
- The street cannot be a cul-de-sac
- The street cannot be a loop street within a subdivision
- The street cannot be along a COTA bus route
- The street cannot be used as a critical emergency response route or contain a fire/EMS station

The Neighborhood Traffic-Calming Program only applies to existing streets. It does not apply to future roads or new subdivision streets under construction or subdivision streets that could be extended in the future.

The Process

Once the Division of Engineering advises the residents to proceed with the Neighborhood Traffic-Calming Program, a neighborhood representative must submit a letter to the Division of Engineering requesting a street be evaluated for traffic calming and the overall affected area be defined. Upon receipt of this request, the Division of Engineering will send a map defining the affected area. The affected area consists of streets and/or cul-de-sacs whose primary access is directly off the affected street. This includes households located on the affected street(s) and any households located on cul-de-sacs attached to the affected street(s).

After reviewing this information and pursuing other solutions with the Police Department, residents may want to take the first step to begin the traffic-calming process. Fulfillment of each step must be in place before proceeding to the next step.

STAGE TWO

ENGINEERING/STUDY PROCESS

Step One – Petition Request

Residents requesting traffic-calming measures in their neighborhood will need to circulate a petition to be signed by residents in the affected area and submit it to the Division of Engineering.

- In order for the request to proceed, the petition must contain signatures from 67 percent of the households located in the affected area and 90 percent of the households on the affected street.

Step Two – Petition Approval

Once the Division of Engineering receives this petition it will then be reviewed by staff to ensure its accuracy.

- Once staff verifies the petition, the request for a traffic-calming study is underway. The Division of Engineering will determine the traffic-calming study's priority for funding. As funding becomes available through the City's Capital Improvement Program or City Council directive the request will move forward with a comprehensive traffic study.
- If staff does not approve the petition, for lack of necessary signatures or other reasons, it will be sent back with an explanation of why it was not approved.

Step Three – Comprehensive Traffic Study

Phase One

The Division of Engineering will conduct a comprehensive traffic study for the affected area to determine if the street(s) meets the following criteria:

- Has a daily volume of 2,000 or more vehicles for collector streets, and 1,000 or more vehicles for local streets.
- The 85th percentile speed (the speed below which 85 percent of vehicles travel) must be 32 mph or more.
- The accident severity ratio must be above the three-year, citywide ratio of 0.21.
- The percent of non-local traffic volumes must be more than 20 percent.

This phase of the study will determine whether traffic calming is recommended. It will also determine if any neighborhood adjacent streets will be affected by traffic-calming measures on the affected street. If no adverse impact to the adjacent streets is found then residents can proceed to Stage Three. If there is an adverse impact, then residents will proceed to Phase Two of Step Three.

Phase Two

This phase of the study determines the impact to adjacent neighborhood streets and the need for in-depth analysis and collaborative neighborhood involvement. Once this phase has been completed residents can proceed to Phase Three of the Neighborhood Traffic-Calming Program.

STAGE THREE

ENGINEERING/OPTIONS & IMPLEMENTATION

Step One – Selecting the Appropriate Traffic-Calming Measure

The Division of Engineering will recommend a plan of traffic-calming options that will best suit the neighborhood's needs.

- Affected residents will have input on which traffic-calming measure(s) they would like to have installed in their neighborhood.
- Although staff will present final recommendations to the affected neighborhood, they will certainly take into consideration the measure(s) suggested by residents in the affected area.

Step Two – Neighborhood Consensus

Residents in the affected area will need to sign a petition agreeing on which traffic-calming measure(s) they would like installed in their neighborhood. The petition must contain one signature per household for a total of 90 percent of households on the affected street(s) and signatures from 67 percent of those in the affected area.

Step Three – Traffic Calming Installation

Once the Division of Engineering has received the necessary signatures, agreeing on the overall Neighborhood Traffic-Calming Program, staff will seek funding for the project through the Capital

Improvement Program or a special request to City Council.

Step Four – Post Evaluation

After the traffic-calming measure(s) has been installed the Division of Engineering will conduct a follow-up study to ensure that it is effective.

OVERVIEW OF RESPONSIBILITIES

Resident's Responsibilities

1) Submit a letter requesting traffic calming.
2) Circulate petition, obtaining signatures from 90 percent of residents on the affected street(s) and 67 percent of those in the affected area to initiate a traffic-calming study.
3) Gain neighborhood consensus on which traffic calming measure(s) to use. Must obtain signatures from 90 percent of the residents on the affected street(s) and 67 percent of those in the affected area.

City's Responsibilities

1) Define affected area for applicant's neighborhood.
2) Verify petition for accuracy and necessary signatures.
3) Conduct comprehensive traffic-calming study.
4) Recommend Neighborhood Traffic-Calming Program (if study determines necessary).
5) Make final recommendation for appropriate traffic-calming measure(s).
6) Seek funding for program through the Capital Improvement Program or a special request to City Council.
7) Install traffic-calming measure(s).
8) Evaluate effectiveness

TRAFFIC CALMING SOLUTIONS FOR A SAFER COMMUNITY

DUBLIN'S NEIGHBORHOOD TRAFFIC-CALMING PROGRAM

This program, adopted by City Council in March 2004 by Resolution 11-04, focuses on local and collector residential streets with a posted speed limit of 25 mph or less. The following is a list of major streets in Dublin that do not qualify for the Neighborhood Traffic-Calming Program. The list was developed in conjunction with the Washington Township Fire Department and the City of Dublin Police Department.

- Avery-Muirfield Drive
- Avery Road
- Blazer Parkway
- Brand Road
- Bright Road
- Coffman Road
- Cosgray Road
- Dublin Road
- *Dublinshire /Earlington Parkway
- Emerald Parkway
- Frantz Road
- Glick Road
- Hard Road
- Innovation Drive
- Memorial Drive
- Muirfield Drive
- Perimeter Drive
- Post Road
- Rings Road, from Frantz to Woerner- Temple, and west of Avery
- Riverside Drive
- SR 161
- *Sells Mill Drive
- Shier-Rings Road
- Summit View Road
- Tuttle Crossing Boulevard
- Tuller Road
- Woerner-Temple Road
- Wyandotte Woods Boulevard

*These streets will receive no additional traffic-calming measures.

WHY STOP SIGNS AND CHILDREN AT PLAY SIGNS ARE NOT USED FOR TRAFFIC CALMING

A common request to address speeding in neighborhoods is the installation of stop signs. This may seem like an easy way to reduce vehicle speeds but can actually create a less desirable situation.

Stop signs can cause high incidences of drivers intentionally violating the stop and other traffic-related issues. When vehicles do stop, the speed reduction is often only effective in the immediate area, since drivers may then increase their speed to make up for lost time. This can result in increased mid-block speeds. There is also often an increase in rear-end collisions near the inappropriate stop sign.

Another common request in neighborhoods is the installation of "Children at Play" signs. National and statewide traffic studies have shown that "Children at Play" signs are not effective in increasing a driver's attention to the point of reducing vehicle speeds or reducing pedestrian accidents. In fact, placement of these signs can increase the potential for accidents by conveying to children and parents that the area is safe for children. For these reasons, the City of Dublin does not use "Children at Play" signs and we encourage parents and/or guardians to find alternative play areas for children, such as a backyard or local parks.

WHO SETS SPEED LIMITS?

Speed limits are under the jurisdiction of the state government. The Ohio Revised Code (ORC) establishes general speed limits for different types of roadways in section 4511.21. Some examples of the ORC applied to municipal areas are listed below:

- 15 mph on an alley
- 20 mph in a school zone (during restricted hours on school days)
- 25 mph on a local (non-through) street or on a street within a business district
- 35 mph on through routes
- 55 – 65 mph on freeways

MEDIANS

A center island narrowing is a raised island located along the centerline of a street that narrows the travel lanes at that location. Center island narrowings are often landscaped to provide a visual amenity. Placed at the entrance to a neighborhood, and often combined with textured pavement, they are often called “gateway islands.” Fitted with a gap to allow pedestrians to walk through at a crosswalk, they are also referred to as “pedestrian refuges.”

Application:

- Entrances to residential areas.
- Wide streets where pedestrians need to cross.

Advantages:

- Increase pedestrian safety.
- Can have positive aesthetic value.
- May reduce traffic volumes.

Disadvantages:

- Speed reduction effect is somewhat limited because vehicles do not have to alter their path.
- May require the elimination of some on-street parking.

Cost Estimate:
$15,000 - $55,000

Source:www.safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31

CHICANES

Chicanes are curb extensions that alternate from one side of the street to the other, forming S-shaped curves. Chicanes can also be created by alternating on-street parking, either diagonal or parallel, between one side of the street and the other. Each parking bay can be created either by restriping the roadway or by installing raised, landscaping islands at the ends of each parking bay.

Application:

- Locations where speeds are a problem but noise associated with speed humps and related measures would be unacceptable.

Advantages:

- Discourage high speeds by forcing a change in path or direction.
- Easily negotiable by large vehicles (such as fire trucks).

Disadvantages:

- Must be designed carefully to discourage drivers from deviating out of the appropriate lane.
- Curb realignment and landscaping can be costly, especially if there are drainage issues.
- May require the elimination of some on-street parking.

Cost Estimate:
$8,000 - $25,000

Source:www.safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31

CHOKERS

Chokers are curb extensions at mid-block locations that narrow a street by widening the sidewalk or planting strip. If marked as crosswalks, they are also known as safe crosses. Two-lane chokers narrower than the normal cross section. One-lane chokers narrow the width to allow travel in only one direction at a time, operating similarly to one-lane bridges.

Application:

- Areas with substantial speed problems and no on-street parking shortage.

Advantages:

- Easily negotiable by large vehicles (such as fire trucks).
- Can have positive aesthetic value.
- May reduce both speeds and volumes.

Disadvantages:

- Speed reduction effect is somewhat limited because vehicles do not have to alter their path.
- May require bicyclists to briefly merge with vehicular traffic.
- May require the elimination of some on-street parking.

Cost Estimate:
$10,000 - $25,000

Source:www.safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31

DIVERSION

Diversion is a physical barrier of some type such as a straight curb, bollards or a landscaped area placed across a roadway to create two distinct sections of street. Diversion is often used to remove a through movement on a lower functional class road traveling to a higher functional class road, discouraging non-local traffic while maintaining access for local residents.

Application:

- Inner neighborhood locations with non-local traffic volume problems.

Advantages:

- Maintains access for local traffic while decreasing non-local volumes.
- Able to maintain full pedestrian and bicycle access.
- Will reduce traffic volumes.
- Provides landscaping opportunities.

Disadvantages:

- Create circuitous routes for local residents and emergency vehicle services.
- May be expensive.
- May require reconstruction of corner curbs.
- May increase traffic volumes on adjacent streets.

Cost Estimate:
$85,000 - $100,000

Source:www.safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31

PROTECTED PARKING

Protected parking consists of parking spaces and centerline striping used to narrow the perceived roadway width from curb to curb.

Application:

- Areas where vertical traffic-calming measures would be unacceptable because of noise considerations.

Advantages:

- Perceived narrow driving width reduces speeds.
- Creates protected on-street parking bays.
- Inexpensive to install.

Disadvantages:

- Effectiveness is limited by the absence of physical obstacles.
- Inclement weather (i.e. snow, rain, etc.) may block the visibility of pavement markings.
- May encourage school-related parking.
- Requires continual maintenance to maintain visibility of markings.

Cost Estimate:

$1,000 - $6,000

Source:www.safety.fhwa.dot.gov/speedmgt/ePrimer_modules/module3.cfm#mod31

REALIGNED INTERSECTIONS

Realigned intersections are changes in alignment that convert T intersections with straight approaches into curving streets that meet at right angles. A former “straight-through” movement along the top of the T becomes a turning movement. While not commonly used, intersections, because the straight top of the T makes deflection difficult to achieve, as needed for traffic circles.

Application:

- T-intersections.

Advantages:

- Realigned intersections can be effective in reducing speeds and improving safety at a T-intersection that is commonly ignored by motorists.
- Provides landscaping opportunities.

Disadvantages:

- Curb realignment can be costly.
- May require some additional right-of-way to cut the corner.

Cost Estimate:

$200,000 - $400,000

RUMBLE STRIPS

Rumble strips are textured pavement which use stamped pavement or alternate paving materials to create an uneven surface for vehicles to traverse. They may be used to emphasize either an entire intersection or a pedestrian crossing, and are sometimes used along entire street blocks.

Application:

- "Main street" areas where there is substantial pedestrian activity and noise is not a major concern.

Advantages:

- Can reduce vehicle speeds over an extended length.
- Can calm two streets at once when placed at an intersection.

Disadvantages:

- Can make crossings more difficult for wheelchair users and the visually impaired when used on a crosswalk.
- Very loud and aesthetically unappealing.

Cost Estimate:
$1,000 – $5,000 each

SPEED HUMPS

Speed humps are rounded, raised areas placed across the roadway. They are generally 10 to 14 feet long (in the direction of travel), making them distinct from the shorter "speed bumps" found in many parking lots, and are 3 to 4 inches high. The profile of a speed hump can be circular, parabolic or sinusoidal. They are often tapered as they reach the curb on each end to allow unimpeded drainage.

Application:

- Locations where very low speeds are desired and reasonable, and noise and fumes are not a major concern.

Advantages:

- Relatively inexpensive.
- Relatively easy for bicycles to cross if designed appropriately.
- Very effective in slowing travel speeds.

Disadvantages:

- Cause a "rough ride" for all drivers, and can cause severe pain for people with certain skeletal disabilities.
- Force large vehicles, such as emergency vehicles and those with rigid suspensions, to travel at slower speeds.
- May increase noise and air pollution.
- Have questionable aesthetics.
- Spaced between 300 – 500 feet apart, so there may be several on a roadway.

Cost Estimate:
$5,000 - $8,000 each
Source: www.safety.fhwa.dot.gov

TRAFFIC CIRCLES

Traffic circles are raised islands, placed in intersections, around which traffic circulates.

Application:

- Calming intersections, especially within neighborhoods where large vehicle traffic is not a major concern, but speeds, volumes and safety are problems.

Advantages:

- Traffic circles are very effective in moderating speeds and improving safety.
- Can have positive aesthetic value.
- Can calm two streets at once.

Disadvantages:

- Difficult for large vehicles (such as fire trucks) to circumnavigate.
- Must be designed so that the circulating lane does not encroach on the crosswalks.
- May require the elimination of some on-street parking.
- Landscaping must be maintained, either by the residents or by the municipality.
- Expensive to install.

Cost Estimate:

$30,000 - $50,000

DEFINITIONS

AFFECTED AREA
The area in which the placement of traffic-calming measures will have an effect. This shall be determined by defining the area significantly affected by street modifications. At a minimum, this will include the households located on the affected street and any households located on cul-de-sacs attached to the affected street.

AFFECTED STREET
The street on which traffic-calming measures are being requested.

COLLECTOR STREET
A street that provides both access to property and traffic circulation within residential neighborhoods and commercial or industrial areas. This system collects traffic from local streets, penetrating the residential neighborhoods, and disperses it to the arterial system. The collector street system may also carry local bus routes.

CUL-DE-SAC
A street having only one end open to traffic and the other end being permanently terminated with a vehicular turn-around provided.

LOCAL STREET
A street that provides direct access to abutting land and connects to the higher order street system. These offer the lowest level of mobility and usually contain no bus routes. Service to through-traffic movement usually is deliberately discouraged.

LOOP STREET
A street that has both of its termini on the same street.

TRAFFIC VOLUMES
The number of vehicles traveling both directions on a street within a 24-hour period.

85TH PERCENTILE SPEED
The speed below which 85 percent of vehicles travel.

ACCIDENT SEVERITY RATIO
The ratio of the number of injury accidents to the total number of accidents, calculated on a yearly basis. The average three-year, citywide accident severity ratio is 0.28.

NON-LOCAL TRAFFIC
Traffic that uses local or collector streets to travel through a residential neighborhood without having an origin or destination within the neighborhood.

developing the timing and prioritization order for the Unserved Areas program has been complex. Resident interest in connecting to the utility extensions resulting from these proposed projects has been relatively low. This has caused issues from a practical operations standpoint and has made the extensions difficult to prioritize. Staff recommended City Council refer the timing of construction and prioritization of the sanitary sewer and water extensions to these and other unserved areas to the Public Services Committee for review and discussion about any potential revisions to the adopted Utility Extension Policy.

Ms. Fox asked how many residents don't have public water and sewer. Mr. Hammersmith estimated a few hundred. Ms. Fox asked how staff prioritizes these extensions. Mr. Hammersmith stated that there are several reasons regarding priority in the policy. Staff uses the policy to determine priority.

Mr. Keeler moved to refer this topic to the Public Services Committee.
Ms. Alutto seconded.
Vote on the motion: Mr. Peterson, yes; Ms. Alutto, yes; Mr. Reiner, yes; Vice Mayor De Rosa, yes; Ms. Fox, yes; Mr. Keeler, yes.

Traffic Calming Program (Request to refer to CSAC)
Ms. Willis stated that Dublin's Neighborhood Traffic Calming Program was adopted by City Council on March 15, 2004 by Resolution 11-04, replacing the previous Traffic Calming Policy dated October 1999. Since 2004, new technologies and equipment have become available for use in managing traffic speeds on neighborhood level roadways, such as: shortened crosswalks, heightened awareness crossing systems, and temporary and permanent driver feedback signs. These tools focus on the safety of vulnerable users, speed compliance, and increasing driver awareness, on multiple types of routes. Both the Traffic Calming Policy (1999) and the Neighborhood Traffic Calming Program (2004) were reviewed and discussed by the Community Services Advisory Commission (CSAC) prior to City Council's consideration and adoption. Staff recommended Council refer this topic to the Community Services Advisory Commission.
Ms. Alutto stated that this is a great program. She complimented the Police on their involvement in this program.
Ms. Fox stated that she also gets complaints regarding speeding so she appreciates a deeper look into traffic calming. She stated that she has heard of planting trees along the roadway to slow people down. Ms. Willis stated that anytime you can narrow the feel of the roadway and give it the illusion of narrowing, it could contribute to slower speeds.
Mr. Reiner stated he has also read about landscaping helping with traffic calming. Ms. Willis stated that we would need to be aware of clearing areas.

Vice Mayor De Rosa moved to refer this topic to the Community Services Advisory Commission.
Mr. Keeler seconded.
Vote on the motion: Mr. Keeler, yes; Vice Mayor De Rosa, yes; Ms. Fox, yes; Mr. Reiner, yes; Mr. Peterson, yes; Ms. Alutto, yes.

North Market Wine Festival – Alcohol Serving Request
Ms. LeRoy stated that the North Market is planning on moving their wine festival from the downtown location to the Bridge Park location. This event has a long history and the staff at the North Market are handling all of the logistical and legal details. Onsite safety and security will be consistent with other similar events and will be managed by Dublin Police. Staff has received a request from the North Market at Bridge Park to waive the policy of not allowing alcohol on City property for their upcoming Wine Fest. Staff has received the permit application for this event and has been and will continue to work with the event organizers throughout the planning and development stages.

Vice Mayor De Rosa moved to grant the request to serve alcohol on City property.
Mr. Keeler seconded.

City of Dublin
OHIO, USA

Speed Management Program
CSAC Meeting

DIVISION OF TRANSPORTATION AND MOBILITY

September 13, 2022

Agenda

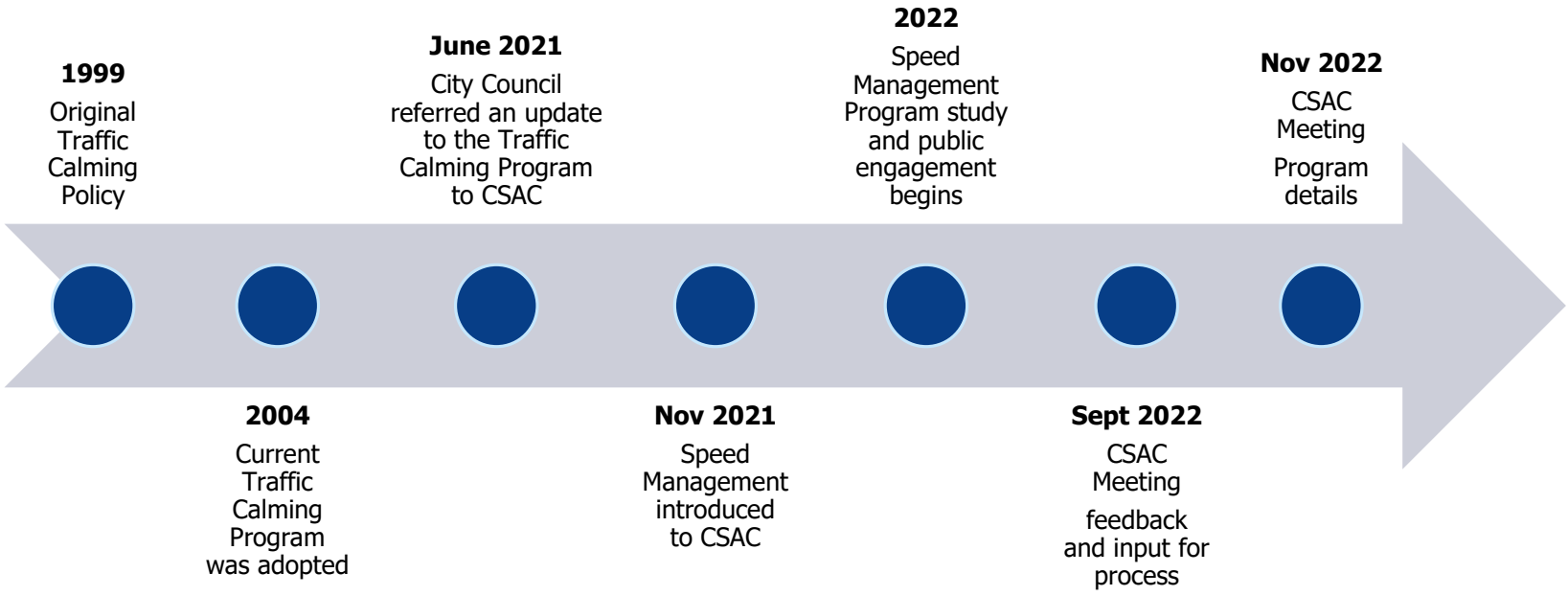
1. Project Background and Timeline
2. Public Engagement Process
3. Vision and Goals
4. Approach
5. Possible Solution Ideas
6. Q & A

Project Background and Timeline

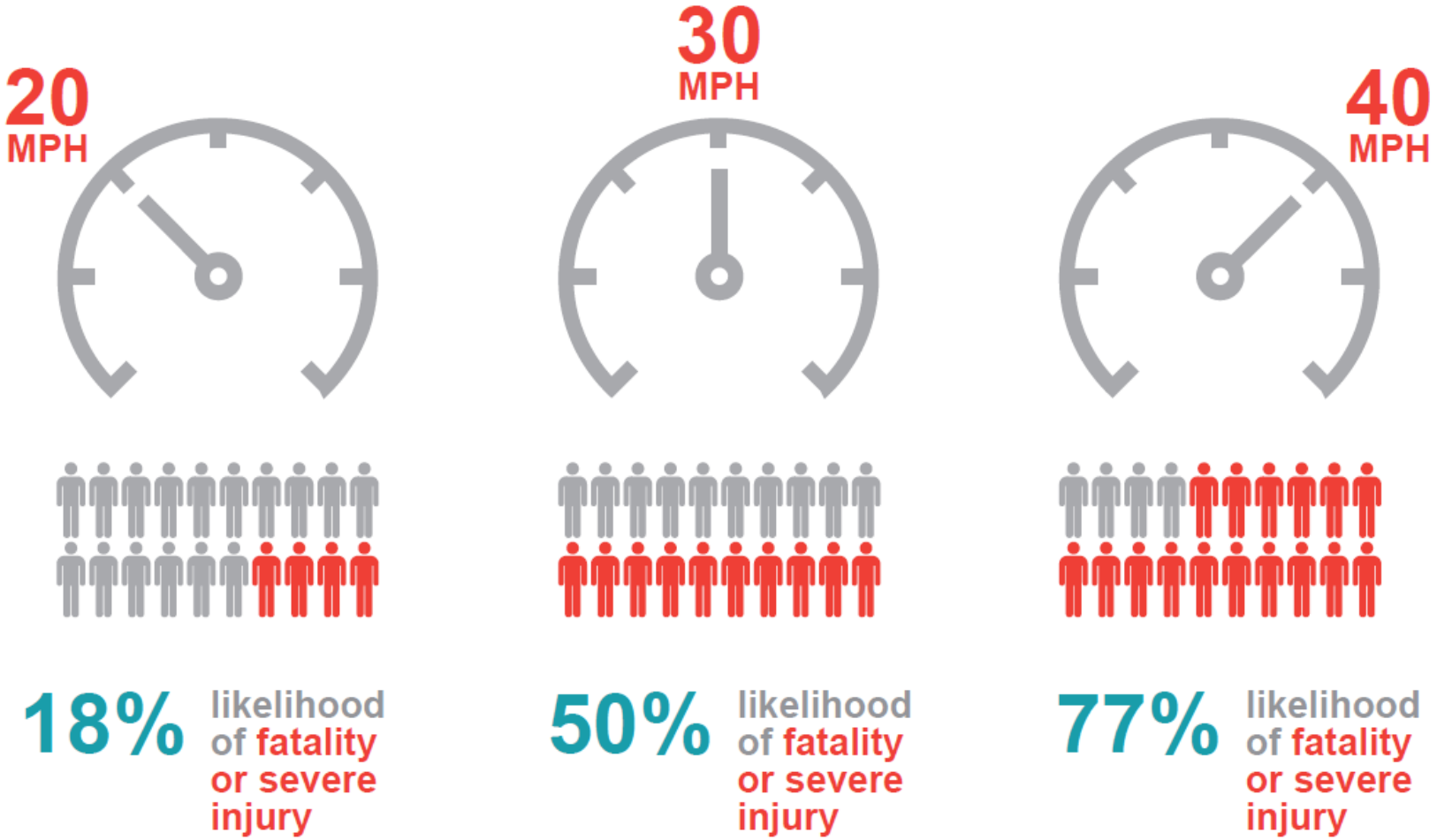
Project Background and Timeline

- The Division of Transportation & Mobility has received many inquiries in recent years regarding speed compliance in Dublin.
- Updating the Neighborhood Traffic Calming Program to become a Speed Management Program across the City.
- Provides a foundation for Dublin's Vision Zero initiative.

Project Timeline



Why is speeding more prevalent on some roadways?



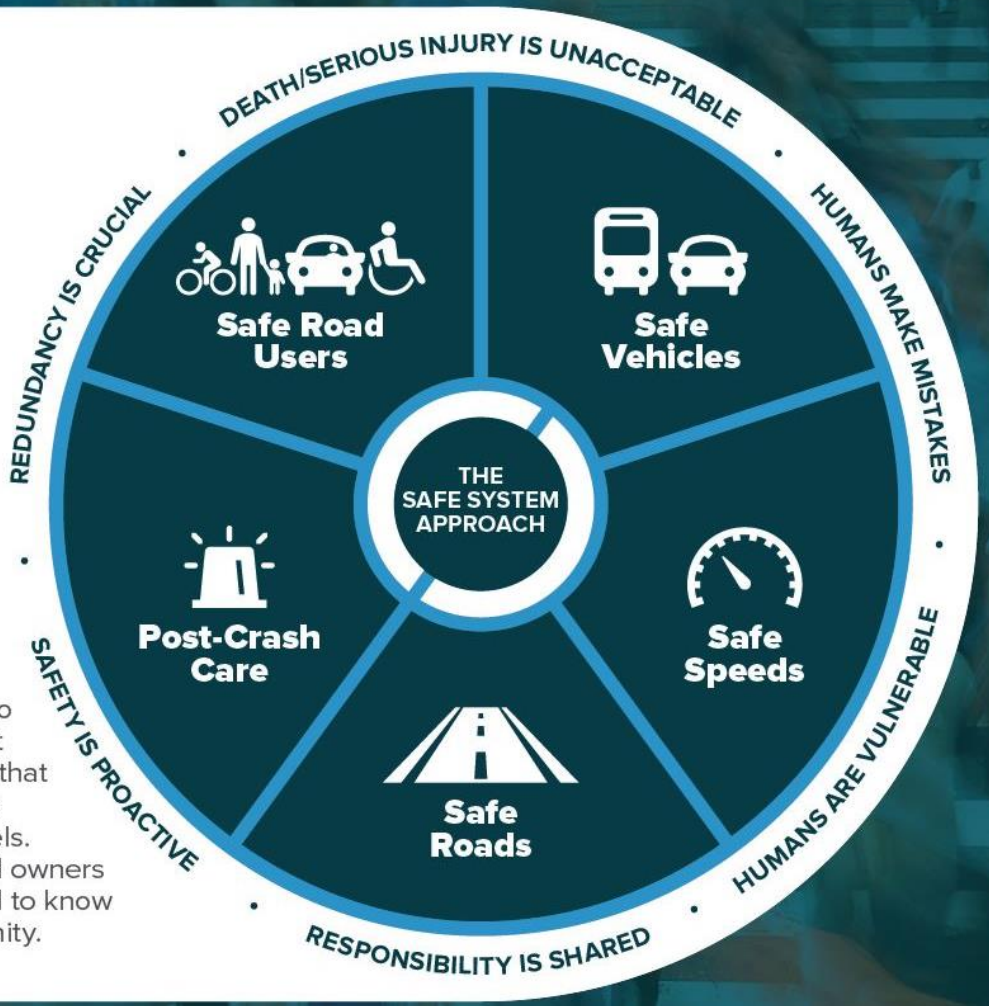
Source: Data originates from Tefft, B.C. (2011). Impact Speed and a Pedestrian's Risk of Severe Injury or Death (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety, which can be found here: https://aaafoundation.org/impact-speed-pedestrians-risk-severe-injury-death/.

THE SAFE SYSTEM

APPROACH

Zero is our goal. A Safe System is how we will get there.

Imagine a world where nobody has to die from vehicle crashes. The Safe System approach aims to eliminate fatal & serious injuries for all road users. It does so through a holistic view of the road system that first anticipates human mistakes and second keeps impact energy on the human body at tolerable levels. Safety is an ethical imperative of the designers and owners of the transportation system. Here's what you need to know to bring the Safe System approach to your community.



Vision and Goals

Vision

The Speed Management Program will provide a framework for a **data-driven** approach to speed management. The program goals and strategies focus on **creating safe** and **comfortable streets** for **all road users** across Dublin, including people **walking** and **rolling**.

Draft Goals

1. Reduce traffic-related fatalities and serious injuries in the City of Dublin for all roadway users, including those walking and rolling.
2. Reduce excessive speeding, traveling more than 15 mph over the speed limit, across Dublin.
3. Ensure existing and future streets are safe and comfortable for all roadway users including people walking and rolling.

Draft Goals

4. Reduce community concerns about speeding.
5. Develop strategies to address speeding concerns on Dublin streets.

Public Engagement Process

Engagement Efforts

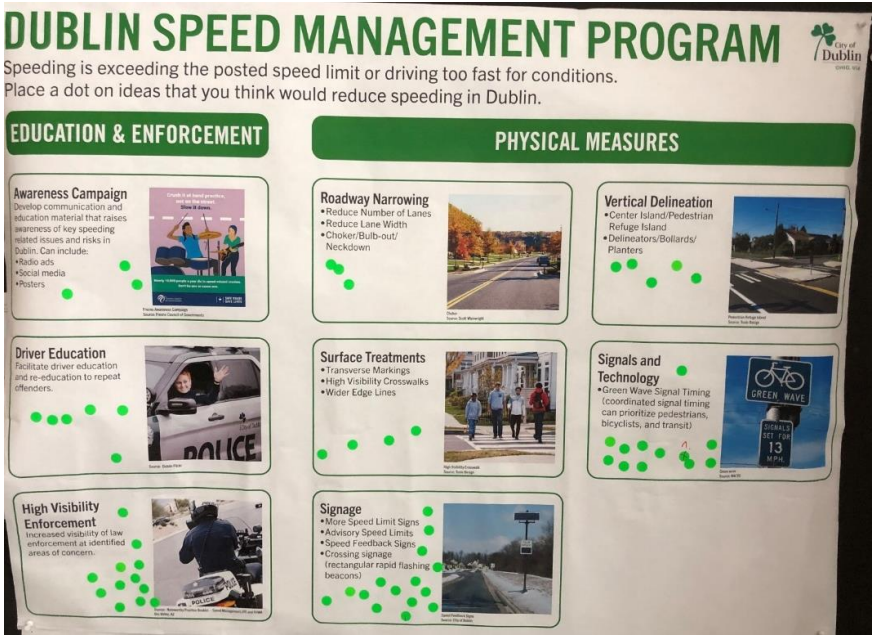
Over 400 people reached so far:

- Neighborhood Email Outreach
- Dublin News Now
- Pop-Up Events (July)
- Public Meeting (Aug. 9)
- Online Survey with over 259 Responses
- Community Services Advisory Committee Meeting (Nov 2021, Sept 2022, Nov 2022)

Themes

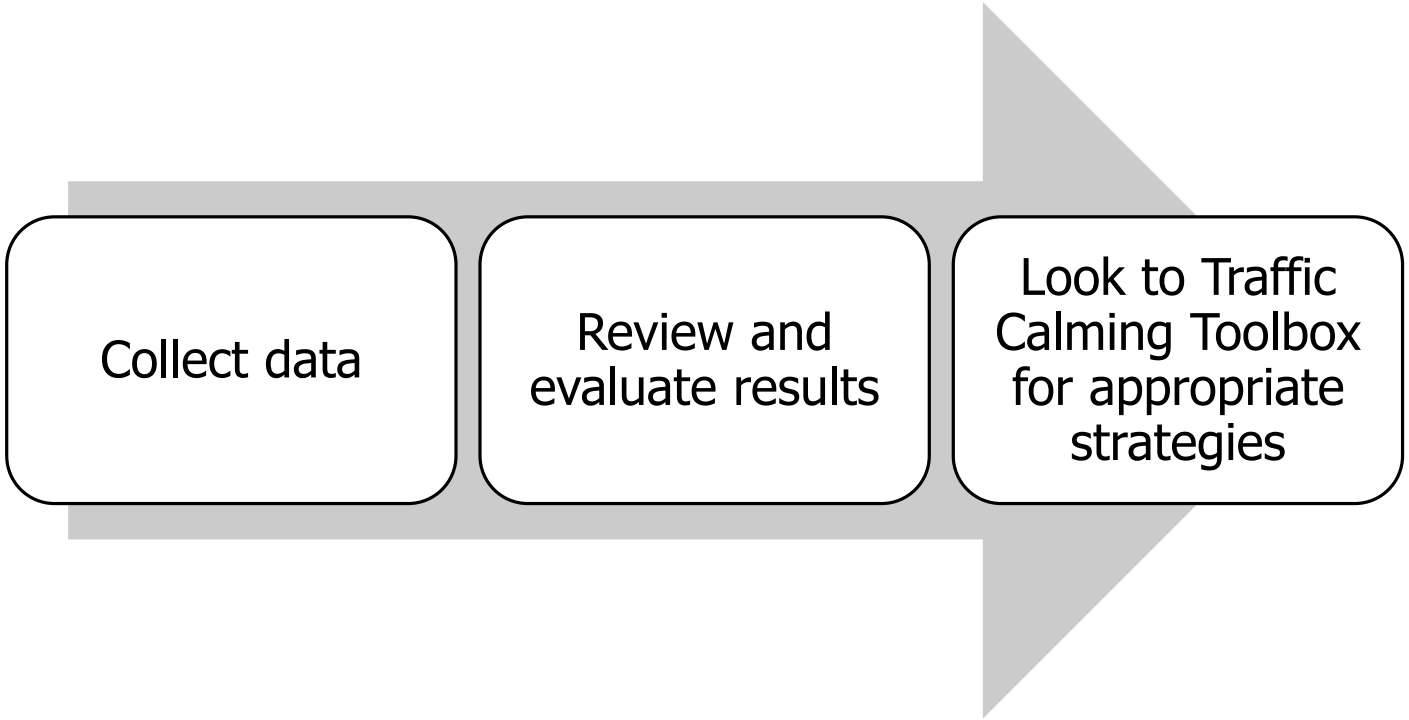

Sidewalks
Technology
Innovation
Bridge Park
Sight distance
Speed humps/bumps
Safer crossings
Safety
Stop signs
Pavement markings
Shared use paths
Enforcement
Thank you
Turn signals
Roundabouts
Slow down
Dublin cares
Loud noise
No problems/issues

What we have heard – Possible Solutions



Approach and Possible Solution Ideas

Project Implementation Process



Toolbox: Possible Solutions

- Police Mobile Speed Trailers
- Temporary Driver Feedback Sign Rotation Program
- Permanent Driver Feedback Signs

Police Mobile Speed Trailer

Temporary Driver Feedback Sign

Permanent Driver Feedback Sign

Toolbox: Possible Solutions

- Street Width Reduction or Delineation using Pavement Markings

Sells Mill Drive

Toolbox: Possible Solutions

- Public Awareness Campaigns
  - Media, Ads, Signs, etc.
  - In-Person Events/Meetings

Fresno Awareness Campaign
Source: Fresno Council of Governments

Toolbox: Possible Solutions

- Police Observations
- Engagement with Community Members
- Enforcement

Toolbox: Possible Solutions

Pavement Treatments and Traffic Control

- Pavers
- Pavement Marking Messages (“Slow”, “25mph”)
- Signal Timing Strategies

Sells Mill Drive

Source: New Jersey School Zone Design Guide, NJDOT

Riverside Drive Source: Google Streetview

Toolbox: Possible Solutions

Horizontal Measures

- Roundabout
- Traffic circles
- Chicane

Toolbox: Possible Solutions

Street Width Reduction and Visual Narrowing

- Reduce Number of Lanes
- Reduce Lane Width
- Center Island/Pedestrian Refuge Island
- Curb Extensions

Toolbox: Possible Solutions

Vertical Deflection

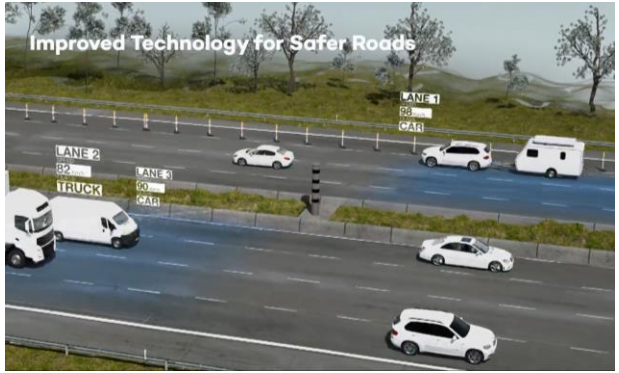
- Speed Humps
- Speed Cushions

Speed Hump on Sells Mill Drive

Speed Cushion

Innovative Technology: Future Considerations

- Speed Monitoring Sensors
- Permanent Changeable Messaging
- Automated Speed Notification Cameras
- Customizing Driver Feedback Sign Solutions




Q & A

Questions?