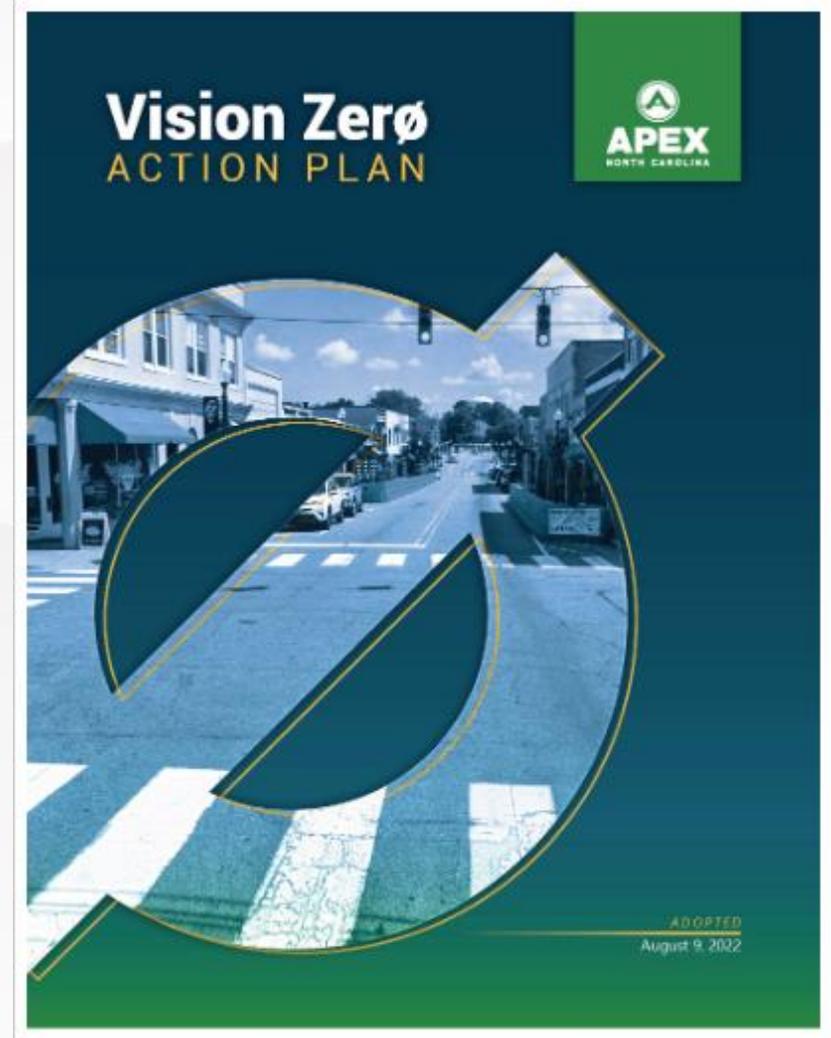




April – June, 2024

Vision Zero Quarterly Report

*The Vision Zero Action Plan is the Town's roadmap to reaching zero traffic-related fatalities and severe injuries by 2035*



## Table of Contents

- Timeline
- The 5 E's & 4 Goals
- The 28 Actionable Strategies
- Progress Reports (28)



# Timeline

**April 2024**  
Start of 2<sup>nd</sup>  
Quarter

**May 2024**  
Promoted  
Vision Zero at  
Apex Peakfest  
& Peak  
Academy

**June 2024**  
End of 2<sup>nd</sup>  
Quarter

**April 2024**  
Completed 2019-2023  
Crash Data Analysis &  
Mapping;  
Completed and  
published brochure  
promoting Vision Zero

**May-June  
2024**  
Staff attended  
Vision Zero  
Leadership  
Institute

## FIVE "E" APPROACH



Engineering



Education



Encouragement



Enforcement



Evaluation

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## GOALS

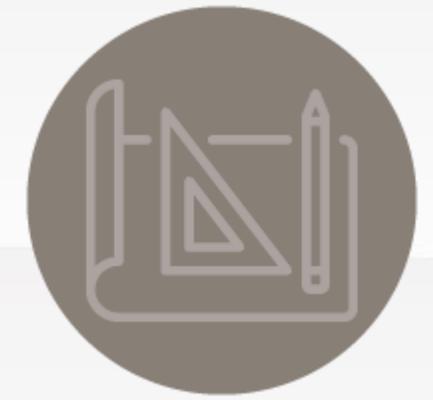
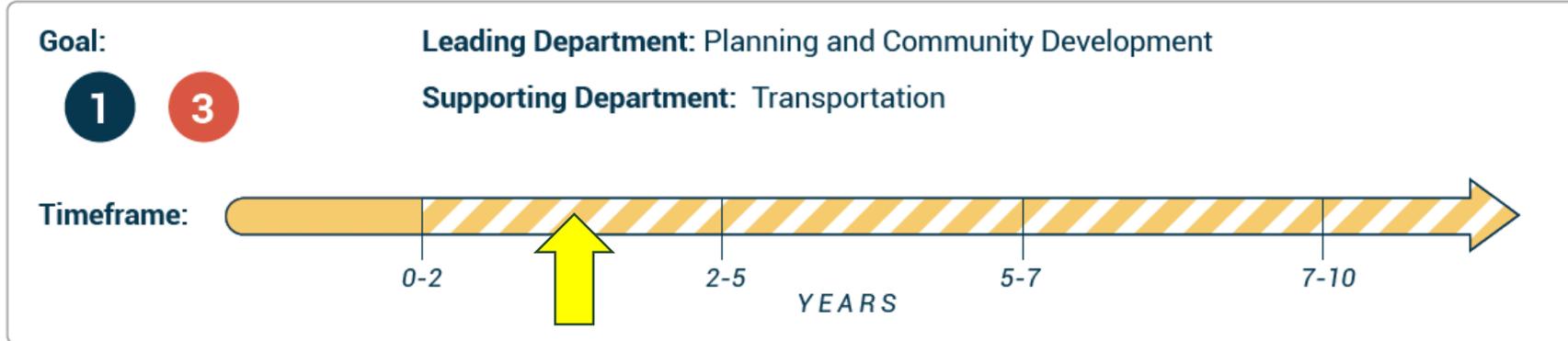
- 1** Promote a culture of traffic safety that prioritizes equity and inclusion.
- 2** Address collisions through infrastructure investments.
- 3** Enhance Town policies, processes, and evaluation to incorporate Vision Zero tenets.
- 4** Create and leverage partnerships to improve traffic safety and awareness.

## 28 Actionable Strategies under the Five E's

-  Engineering (7)
-  Education (5)
-  Encouragement (6)
-  Enforcement (4)
-  Evaluation (6)

*Each Strategy identifies which of the 4 Goals are met, a Leading Department, Supporting Department(s), and a Timeframe*

1. Review and refine the method for prioritizing bicycle and pedestrian needs using crash data, information from the ADA Transition Plan, pedestrian facility gaps to bus stops, equity considerations, and community input gathered for the Vision Zero Action Plan.



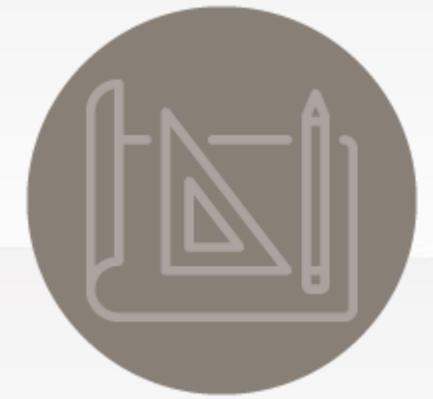
Engineering

- Published a Sidewalk Prioritization & Safe Routes to School page on the Town website
  - Created a Sidewalk Needs Interactive Map that color-codes needs based on a generalized level of priority
- Updated standards for Bus Stop Landing Pad



North Salem Street Sidewalk (2023)

2. Develop and maintain a traffic safety performance management system to track traffic collision data and system performance metrics on an annual basis to inform safety improvement projects.



**Engineering**

- Staff continues to maintain previously developed data tools for measure system performance metric and provide annual reporting
- Staff to provide annual report of system performance metrics

3. Develop and maintain a traffic engineering toolbox of countermeasures to address traffic safety.

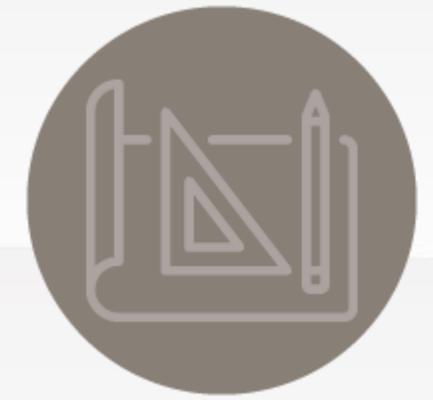
Goal:

2 3

Leading Department: Transportation

Supporting Department: Police Department, Fire Department, Planning and Community Development

Timeframe:



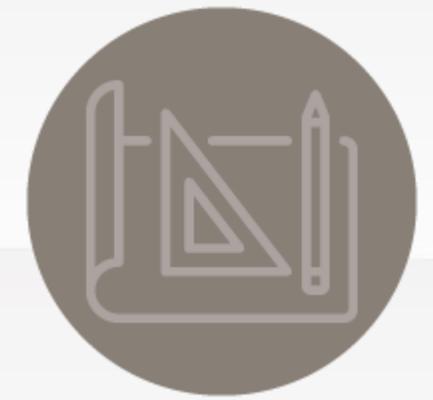
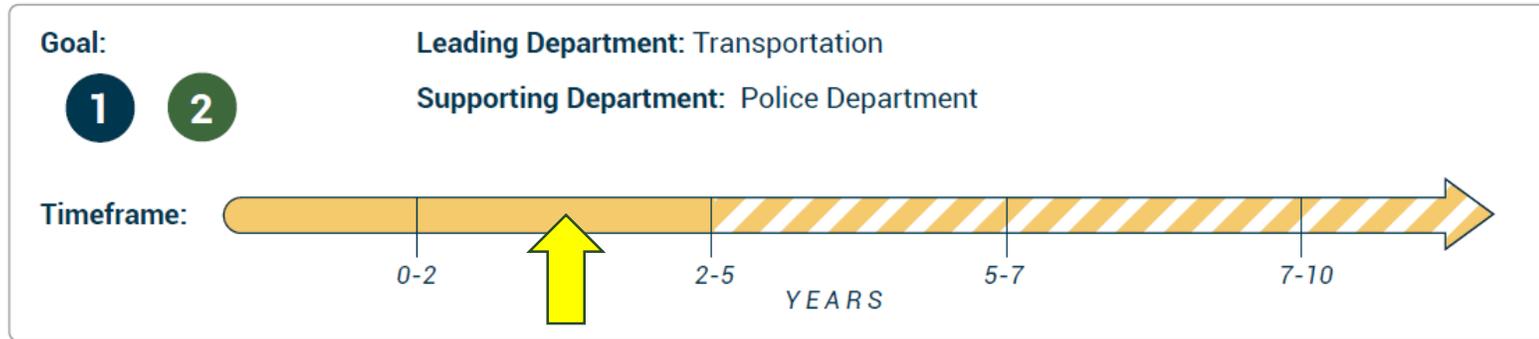
Engineering

- Initial testing of crosswalk Lighting Standard Detail completed
- Countermeasures toolbox drafted using crash modification and standard error data available from the Highway Safety Manual - *Countermeasures are tied to geometric roadway and intersection control improvements*



High-visibility crosswalk and bike lanes on Lake Pine Drive (2023)

4. Conduct engineering studies and identify countermeasures that will address traffic safety on the high injury network. Use this information to prioritize projects for the Capital Improvement Plan (CIP).



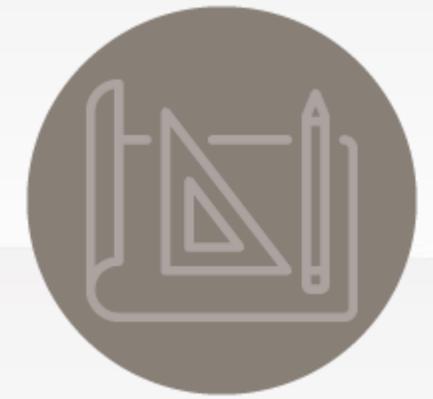
Engineering

- Beaver Creek Commons Dr/NC 55 Safety Study: additional analysis underway
- Ten Ten Rd/US 1 Safety Study: additional analysis underway and some roadside improvements completed
- NC 55 improvements and Pristine Water Dr signalization: Aquiline & Veridea development construction plans in final design/ROW phase
- Safe Streets & Roads for All Grant: draft grant agreement provided to FHWA



Peak Academy at future Apex Peakway Southwest Connector site (May 2024)

5. Develop a performance evaluation process for ranking traffic safety projects based on a benefit or value to cost analysis.

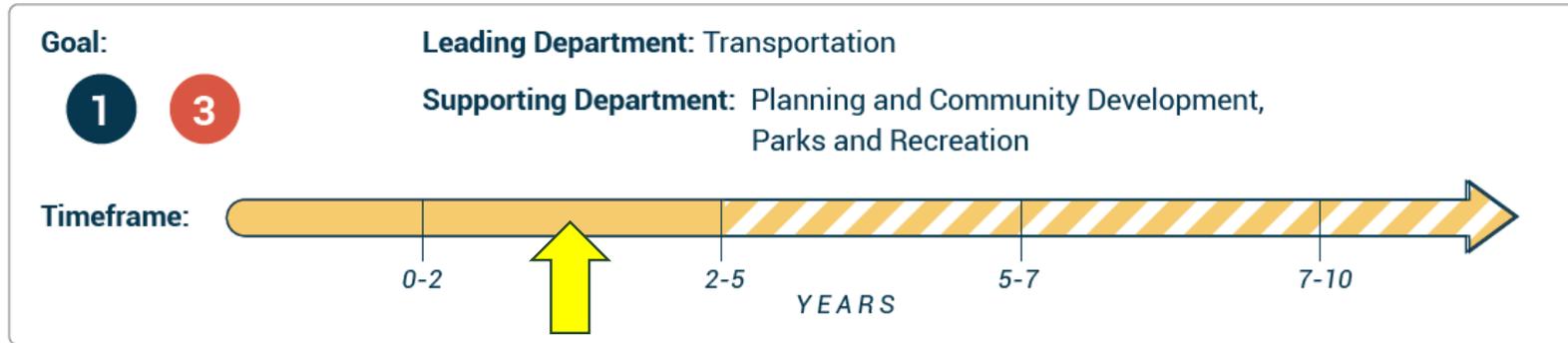


**Engineering**

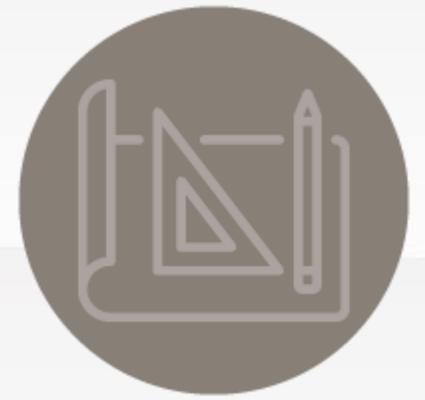
- **Evaluation Development**

- Developed tool for calculating benefit of crash reduction based on expected crash frequencies per Highway Safety Manual methodology
- Developed estimation workbook for evaluating total project cost
- Developed tool for ranking projects based on ranking based on previous benefit and cost per Highway Safety Manual methodology to be used on High Injury Network analysis

6. Prioritize the design and maintenance of pedestrian and bicycle facilities, to comply with the Americans with Disabilities Act, ensuring facilities are clear of poles, signs, trees, shrubbery, and other impediments.



- Staff continue to review plans based on current ADA-PROWAG standards and guidelines to ensure compliant infrastructure
- Staff continue to prioritize funds for ADA-PROWAG compliance in Town's annual street maintenance contracts

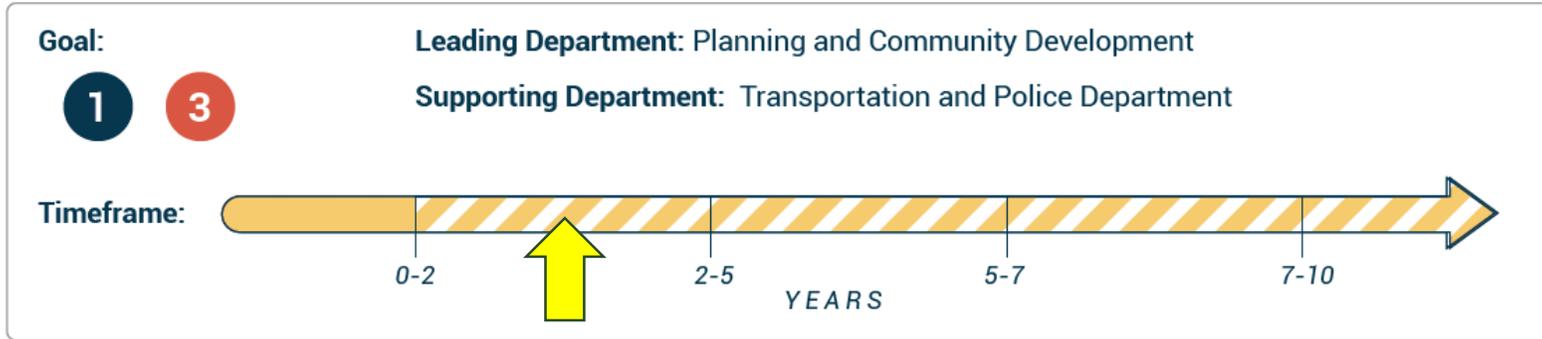


## Engineering



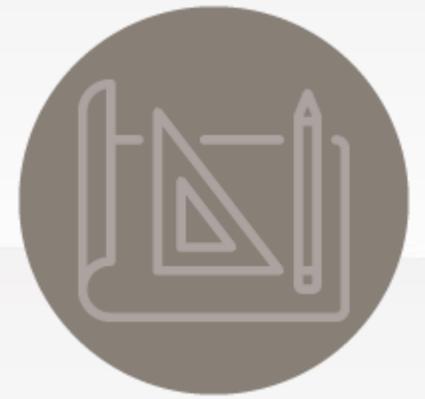
Retrofitted ramps crossing Bryan Dr (2024)

7. Coordinate with school officials and Wake County Public School System to evaluate pedestrian and bicycle needs, provide pedestrian and bicycle routes, and address school transportation safety concerns in order to promote walking and biking to school.



• Notable activities:

- Safe Routes to School
  - All school sites visited and reviewed
- Construction/installation
  - Groundbreaking of Laura Duncan Rd sidewalk from Knollwood Dr to Pinewood (Apex High School)
- Preparing for construction
  - EB-6046, W Chatham St sidewalk (Baucom Elementary)
  - HS 2005Q (NCDOT): Humie Olive Rd at Blazing Trail Traffic Signal (Apex Friendship)
  - RRFB Upgrades (Laurel Park and Scott's Ridge ES)
- Planning & design underway
  - BL-0047, Downtown Safe Routes to School and Transit Connections (Baucom/Thales Elementary)
  - BL-0095, Saunders St & Hinton St sidewalks (Baucom Elementary)
  - N Hughes St & S Mason St sidewalks (Apex MS)
  - BO-2416, Tingen Rd Pedestrian Bridge Study (Apex Elementary)
  - SS4A Pilot Study at NC 55 and Hughes (Apex MS)



## Engineering

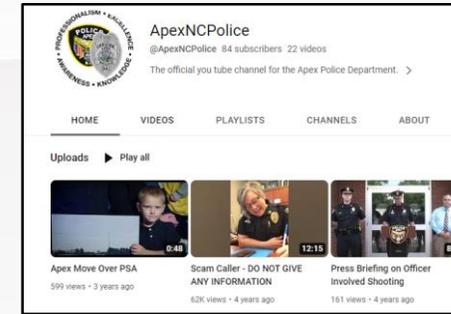


Tingen Road at Apex Elementary  
(2024)

1. Create a social media campaign with appropriate traffic messages that targets the following 5 most relevant concerns identified through public input: (1) Speeding and Traffic Calming, (2) Pedestrian and Bicycle Safety, (3) Distracted Driver / Behavior Programs, (4) Safe Routes to School, (5) Young Driver / Passenger Safety.



- Apex Police Department:
  - Traffic Safety Unit information events/campaigns
    - Governor's Highway Safety Program
      - GHSP - St. Patrick's Day "Booze It & Lose It" Campaign (Police/Taxi DWI Countermeasure),
      - GHSP - Speed a Little, Lose a Lot" Campaign,
      - GHSP - Operation Firecracker "Booze It & Lose It" Campaign (Police/Taxi DWI Countermeasure),
      - GHSP Memorial Day "Click It or Ticket"
    - Miscellaneous Traffic Safety Messages: Preventable Collision with Tractor Trailers
    - Pedestrian/Crosswalk Safety
    - Motorcycle Safety Tip - Rider Protective Gear Checklist
    - Teen Drivers Various
    - Driver Assist Technology
    - TSU Monthly Video
      - Teen Drivers
      - Driving in the Rain Tips/Laws
      - Pedestrian/Bicyclist/Vehicle Laws
    - National Trailer Safety Awareness Month
      - Sharing the Road Around Trucks
    - How to Navigate Flooding Situation
    - Prevent Hot Car Death Awareness
    - Traffic Safety Messages - Dynamic Message Boards



Apex PD YouTube Channel

- Traffic Safety Presentation Outreach
  - MADD: Power of Youth
  - Apex Parks and Recreation Summer Camp
  - BikeSafe
  - Child Seat Inspections
  - Choose Your Ride (Police/Taxi)
- Watch for Me NC / NCDOT's Let's Go NC
  - Provided 2 helmets to riders



Education

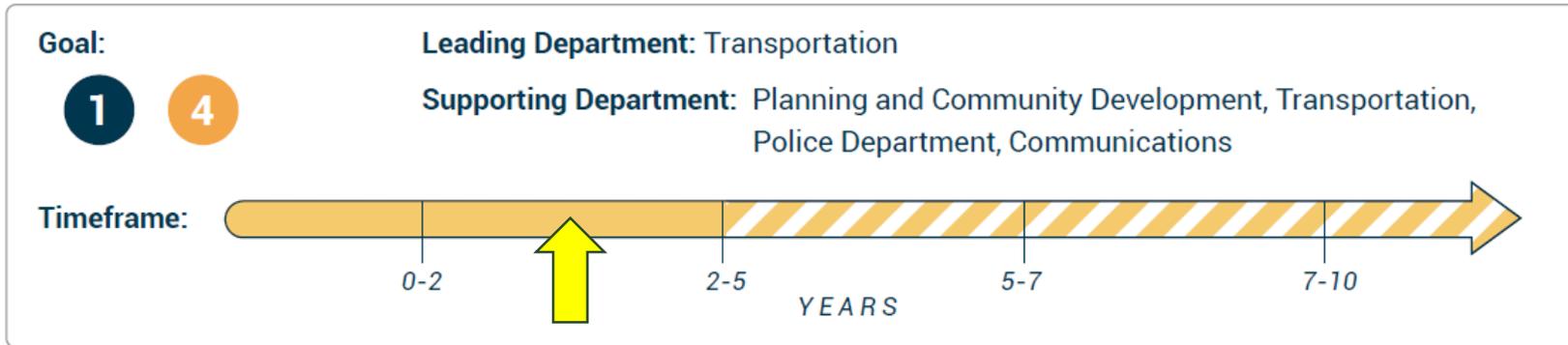
2. Create safe traffic messaging information on buses and at or around bus stops.



**Education**

- Apex Police Department:
  - Traffic Safety Messages distributed through Social Media and displayed on Dynamic Message Boards around school zones and school bus stops

3. Create a safety education team that will engage in traffic safety outreach and education to community groups (schools, churches, HOAs, and Town staff), and will be supported by the social media campaign and safe traffic messaging.



Education

- Apex Police Department:
  - Traffic Safety event/displays
    - Peak Fest: Police Booth
    - MADD: Power of Youth
    - Apex Parks and Recreation Summer Camp
    - BikeSafe
    - Child Seat Inspections
    - Coffee with a Cop
    - Choose your Ride Police/Taxi Car
  - Governor's Highway Safety Program and Traffic Safety Campaigns
    - One "Booze It or Lose It" campaign
    - One "Click It or Ticket" campaign
    - Five BikeSafe NC events (11 attendees)
  - Community Traffic Safety Project and outreach with ITRE NCSU
    - Funding and campaign starting in June through October
- Planning
  - Requesting community input for "Blueprint for Safety"
    - CAMPO Regional Transportation Safety Action Plan



Power of Youth Presentation

4. Provide targeted outreach when adding new traffic signals, roundabouts, and pedestrian and bicycle facilities to the transportation network.



**Education**

- No activity this quarter

5. Provide Town employees with defensive driving classes and curriculum on an annual basis.



**Education**

- Course completed by Town employees in Q1 2024

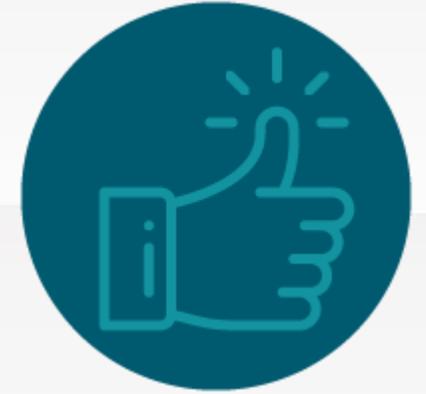
	<b>Driving Safety: The Basics</b> Completed : 9/27/2023    Status : Completed    Training Type : Online Class
	<b>Distracted Driving</b> Completed : 9/26/2023    Status : Completed    Training Type : Online Class
	<b>Driving Defensively</b> Completed : 9/26/2023    Status : Completed    Training Type : Online Class

Cornerstone Module Summary

1. Partner with schools for National Walk to School Day and other walking and biking events.



- National Walk to School Day
  - Awarded grant from NCDOT for Bicycle Helmet Initiative

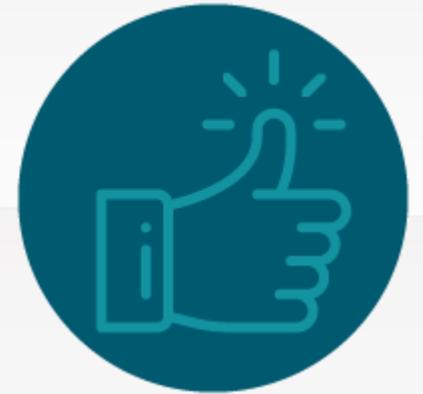


Encouragement



Walk to School Day, Olive Chapel ES

2. Make Vision Zero visible through Town-sponsored and co-sponsored events and festivals.



**Encouragement**

- Promoted Vision Zero at Transportation booth during annual Peakfest street festival
- Promoted Vision Zero during annual Peak Academy event for Transportation



Transportation Infrastructure & Development booth at Apex Peakfest (May 2024)

3. Develop Vision Zero marketing materials. Disseminate through various medium, including the Town's website and newsletter.

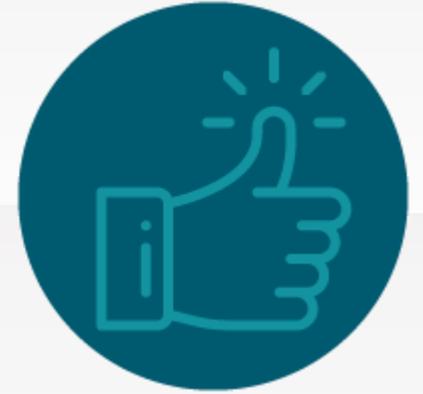
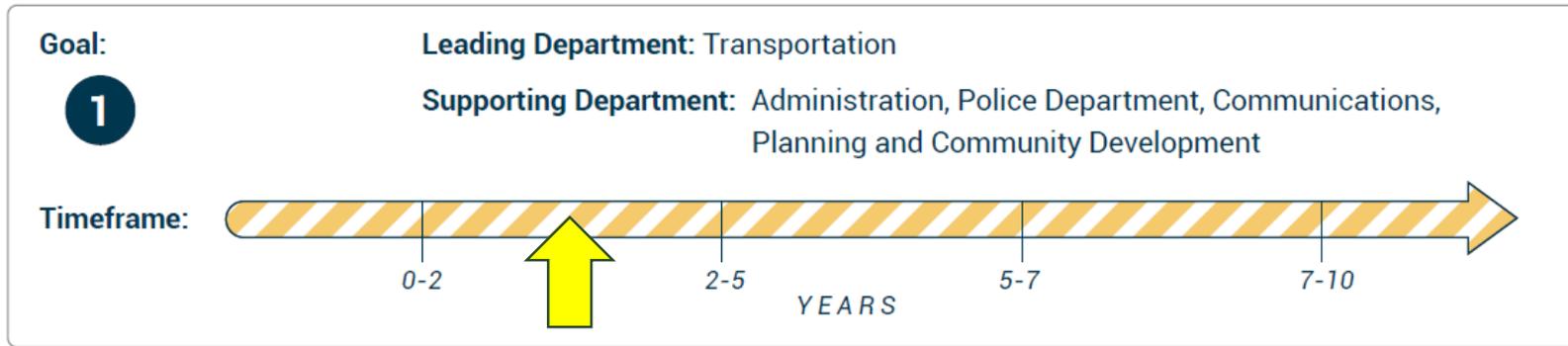


**Encouragement**

- Displayed High Injury Network Map, distributed Vision Zero brochures and other promotional giveaways at annual Peakfest street festival and at Peak Academy event



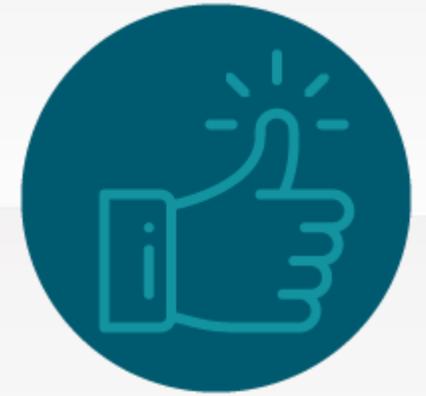
4. Keep Town Council members informed about the Vision Zero program, with updates on traffic safety projects, program performance metrics, and outreach and education initiatives.



**Encouragement**

- Taskforce members provided quarterly progress updates for review
- Quarterly report completed and published to the Vision Zero web page

5. Continue participation in statewide Vision Zero programs through the North Carolina Governor's Highway Safety Program and the University of North Carolina at Chapel Hill Highway Safety Research Center.

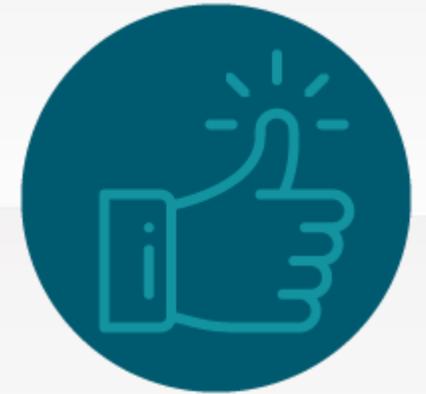


**Encouragement**

- Apex PD Traffic Safety Unit reporting under Governor's Highway Safety Program: 100% reporting, 24,000+ STEP Points
- Staff attended monthly Vision Zero meetings with assigned peer communities
- Staff attended quarterly "All Hands" Statewide Vision Zero meeting
- Staff attended NC Vision Zero Leadership Institute

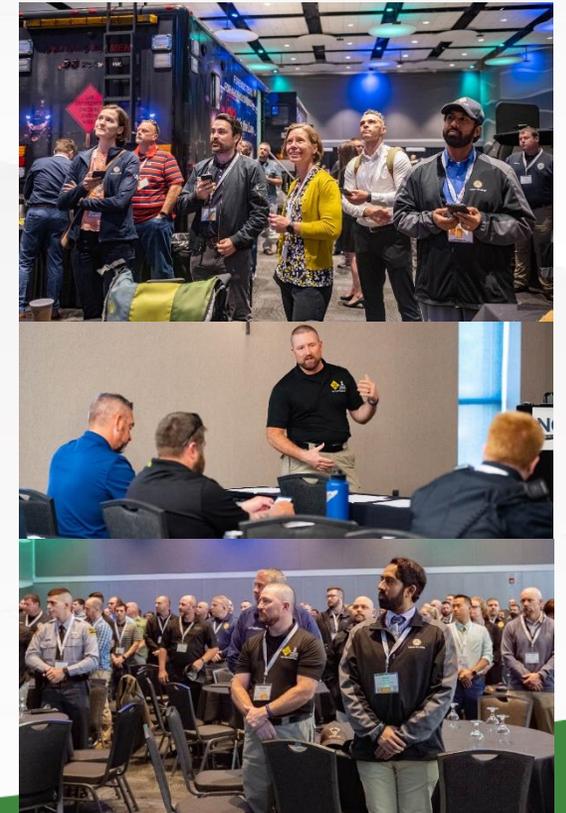


6. Participate in conferences that include traffic safety programs and look for opportunities to network with other organizations for knowledge sharing.

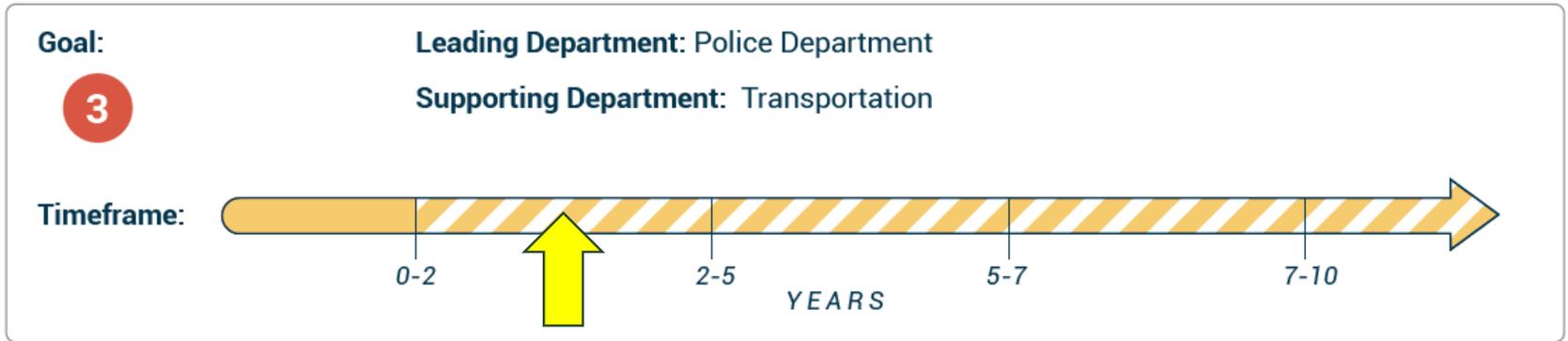


## Encouragement

- NC Traffic Safety Conference/Expo Safe Highway Strategic Planning (SHSP)
  - Transportation, Planning, and Police in attendance
  - Includes Traffic Safety Related Training
  - Apex Police presented instructional lecture
    - Traveler Information Management System (TIMS)
    - Railsafe
    - CSX Operation Lifesavers Railroad Investigation and Safety



1. Develop a reporting system of performance metrics on an annual basis to inform police enforcement activity.

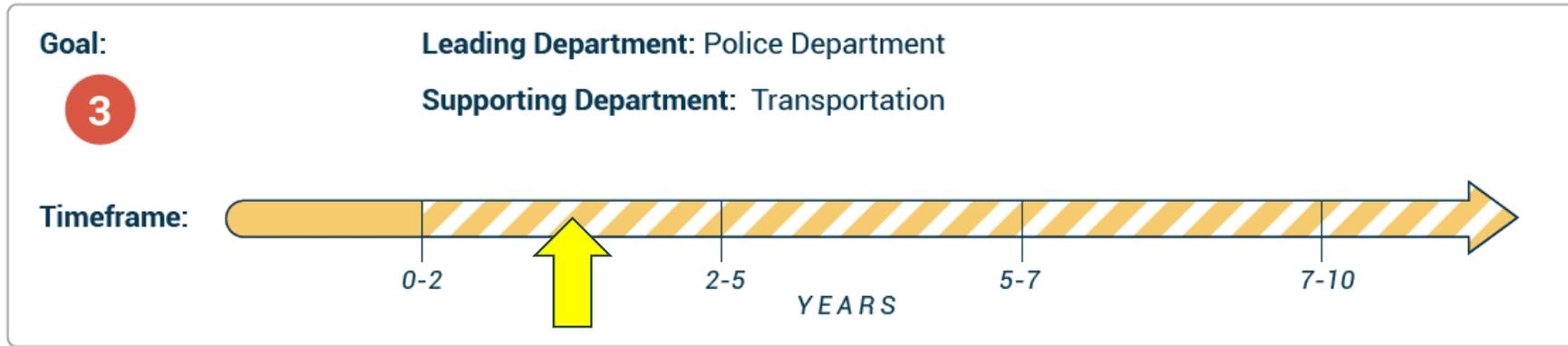


**Enforcement**

- APD Traffic Safety Unit continued enforcement programs using Data-Driven Approaches to Crimes and Traffic Safety (DDACTS) system



2. Target enforcement on the high injury network, and target the most dangerous driving behavior.



**Enforcement**

- Apex Police Department
  - Forty selective enforcement initiatives
  - Promoted pedestrian safety through Watch for Me NC initiatives
  - “Move Over” enforcement initiative on US 1 and US 64
  - TIMS training for 22 officers



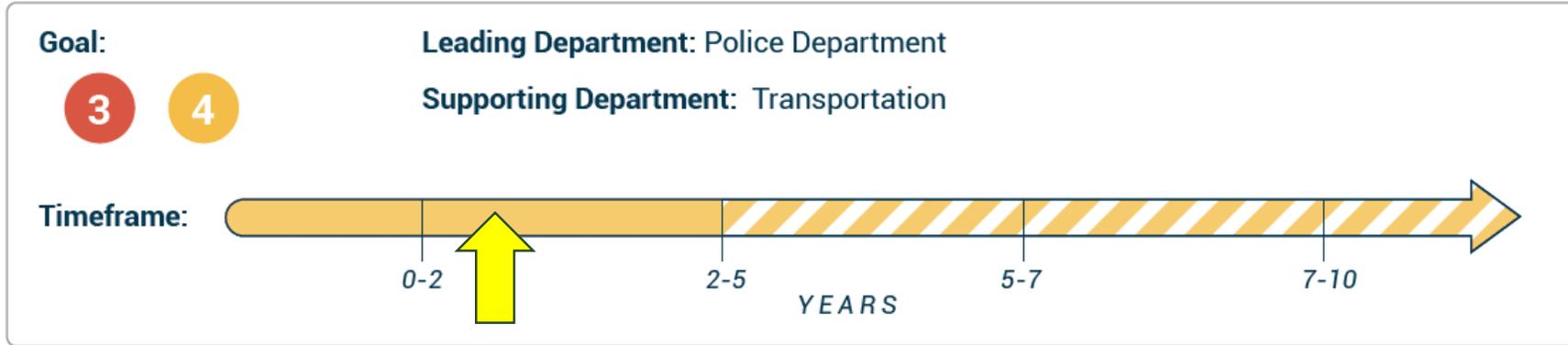
### 3. Continue to review and improve upon existing processes that protect against racial profiling.



**Enforcement**

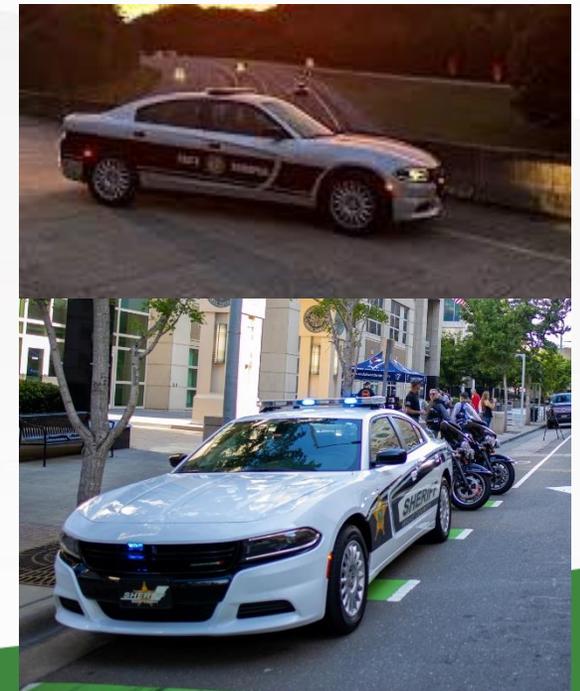
- Apex Police Department
  - Supervisors monitored police action to identify possible bias
  - Completed Traffic Stop Report review

4. Research enforcement techniques and partner with other municipalities in the region to reduce high-risk driving behavior.

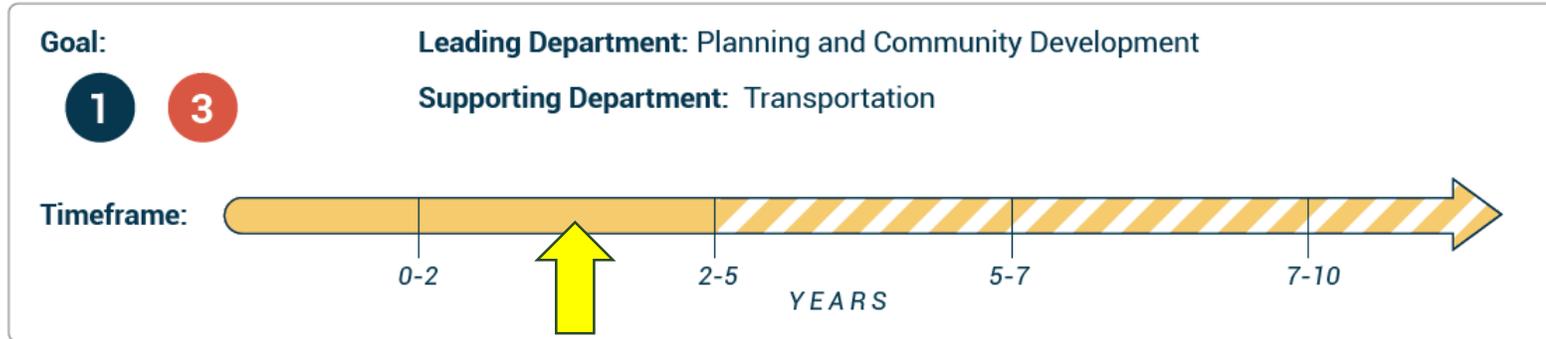


**Enforcement**

- Multi-agency traffic enforcement initiatives
  - NC State Highway Patrol and Wake County Sheriff's Office (Saturation Patrol)



1. Evaluate and update the Town-wide policy, guidance and specifications with the goal of promoting alternative modes of transportation, including more walkable, transit-friendly, and bicycle-friendly streets.



## Evaluation

- Town Standards and Specifications Updates

- Updated standard intersection corner radii to be more pedestrian-friendly.
- Updated tables in reference to intersection and stopping sight-distance to provide additional clarity on AASHTO guidance.
- Roundabout detail drafted for staff review per latest guidance from NCHRP 1043. Detail includes treatment of bicyclists and pedestrians at roundabouts.

Street Classification	Design Vehicle	Control Vehicle	Edge of Pavement Radius
4 & 6 Lane Thoroughfares	WB-40	WB-62	40 feet
2 & 3 Lane Thoroughfares	WB-40	WB-50	40 feet
Major Collector	SU-30	WB-40	30 feet
Minor Collector	DL-23 <sup>3</sup>	FIRE <sup>4</sup>	25 feet
Residential Street	DL-23 <sup>3</sup>	FIRE <sup>4</sup>	25 feet
Alleys	P <sup>7</sup>	DL-23 <sup>3,7</sup>	10 feet <sup>7</sup>

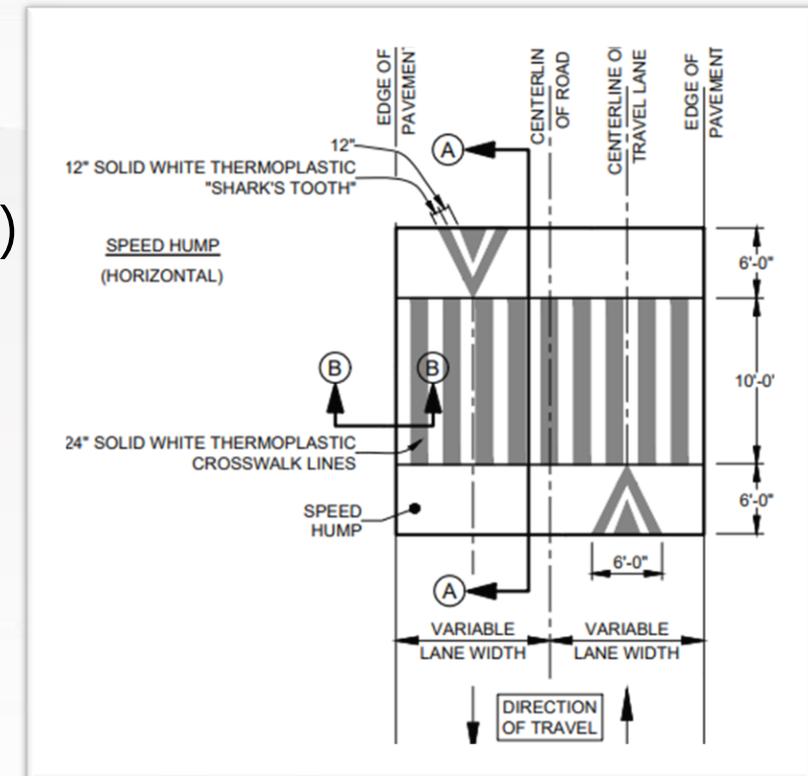
2. Evaluate and update Town-wide policy, guidance and specifications with the goal of reducing crash severity within the public right-of-way and in public vehicular spaces.



## Evaluation

- Traffic Calming Device Update

- Updated standard details for speed hump (300.17) and elevated crosswalk (300.18) for consistency and improved design



3. Develop a traffic safety report card and progress report on the actionable strategies on an annual basis for public information and to inform policy decisions. Update crash statistics, the high injury network, and performance metrics as part of the annual reporting process.



**Evaluation**

- 5-year Crash Maps updated for calendar year 2019-2023

4. Continue to evaluate traffic enforcement and education techniques to adapt to changes in technology and road user behavior.



**Evaluation**

- Staff are researching this topic for future recommendations and are gaining more information through training and statewide collaboration

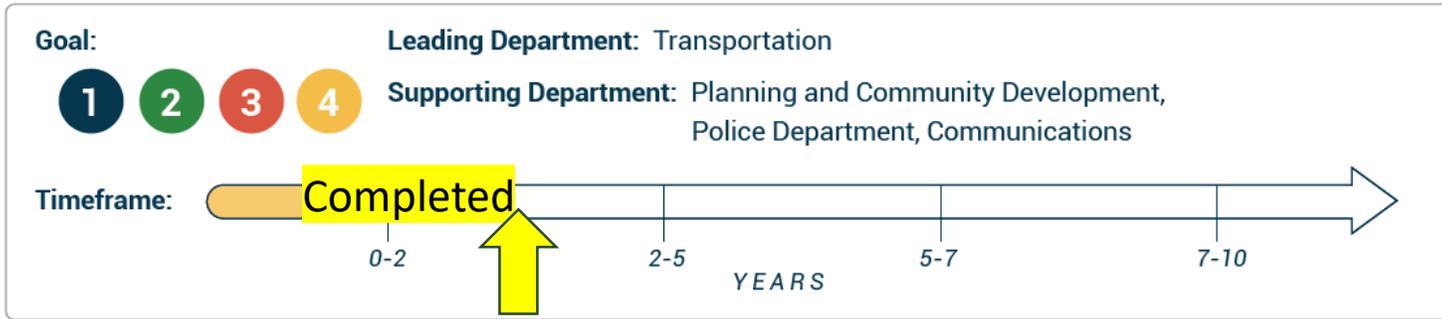
5. Continue regular collaboration of the Vision Zero Task Force to check in on progress, issues, and ideas.



## Evaluation

- Continued regular monthly interdepartmental Task Force meetings
  - Transportation & Infrastructure Development
  - Long Range Planning & Transit Planning
  - Police Department
  - Communications
  - Diversity, Equity & Inclusion
  - Public Works Street Operations
  - Fire Department

6. Hire a Traffic Safety Engineer to oversee implementation of the Vision Zero Action Plan, annual reporting, coordination of the Task Force, communication with the community, and to seek funding opportunities for infrastructure projects.



**Evaluation**

- Traffic Safety Engineer hired in March 2023



If you have any questions on the Vision Zero program please contact:

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