



# BE SAFE BE SEEN

Pedestrian and Bicycle Safety  
Initiative Implementation:  
Waco, Texas

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Texas Department of Transportation



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## 1. Introduction

Pedestrian fatalities are a growing problem nationally and in Texas. Figure 1 illustrates the 2016 numbers for the nation and the state and the severity of the situation on a daily basis. Across the state, the Texas Department of Transportation (TxDOT) reported 8,454 pedestrian and bicyclist injuries and crashes in 2017 (1). Pedestrian fatalities have increased sharply since 2011, while bicyclist fatalities have flattened over the same period (2). However, injuries continue to rise for both pedestrians and bicyclists (2).

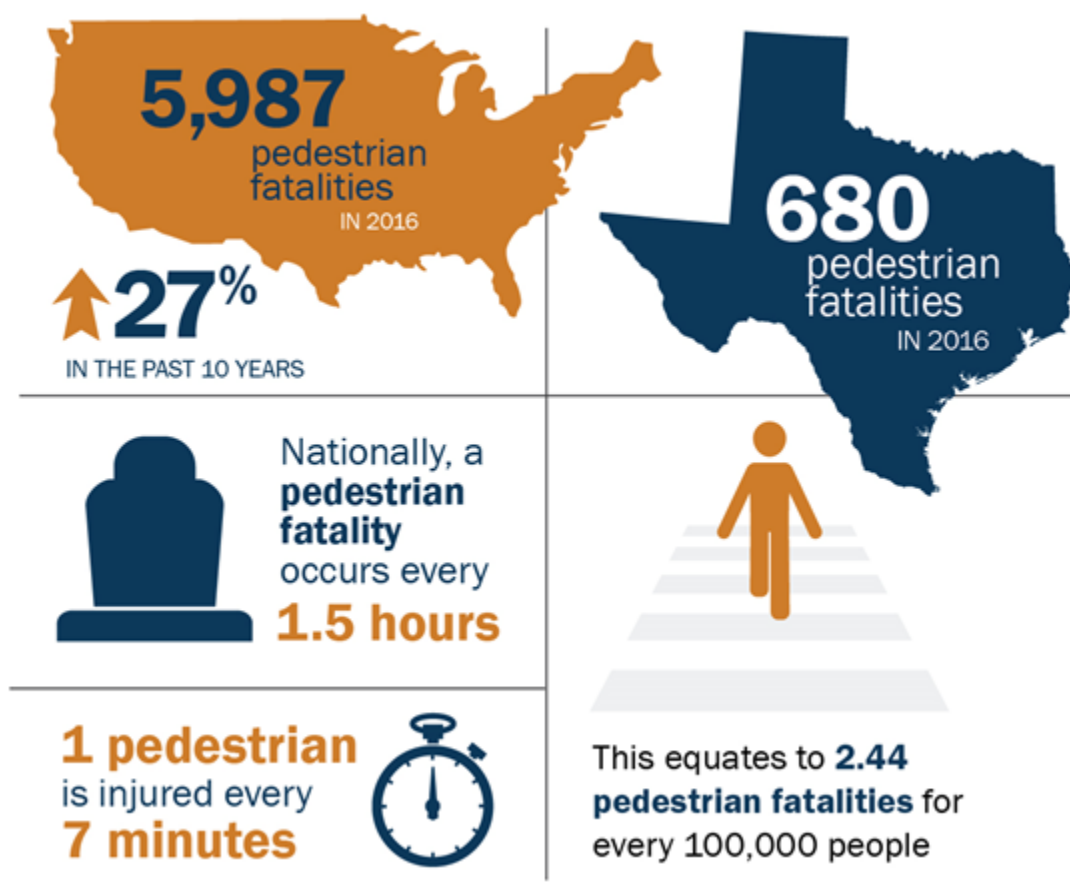


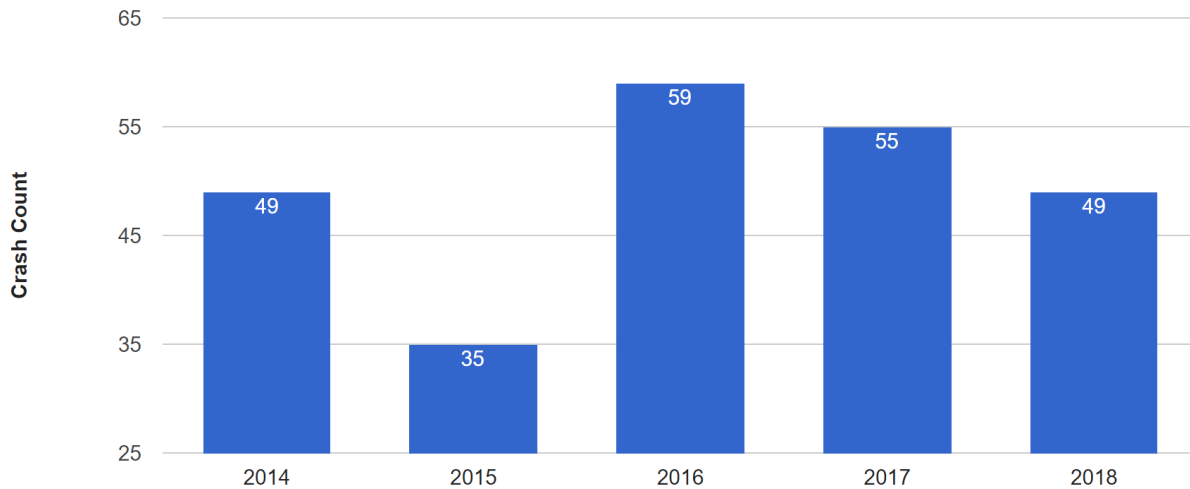
Figure 1. National and Texas Pedestrian Fatality Statistics

### Pedestrian and Bicycle Crashes and Fatalities in Waco, Texas

In contrast to statewide trends, pedestrian and bicycle crashes and fatalities in Waco, Texas, have declined in recent years.

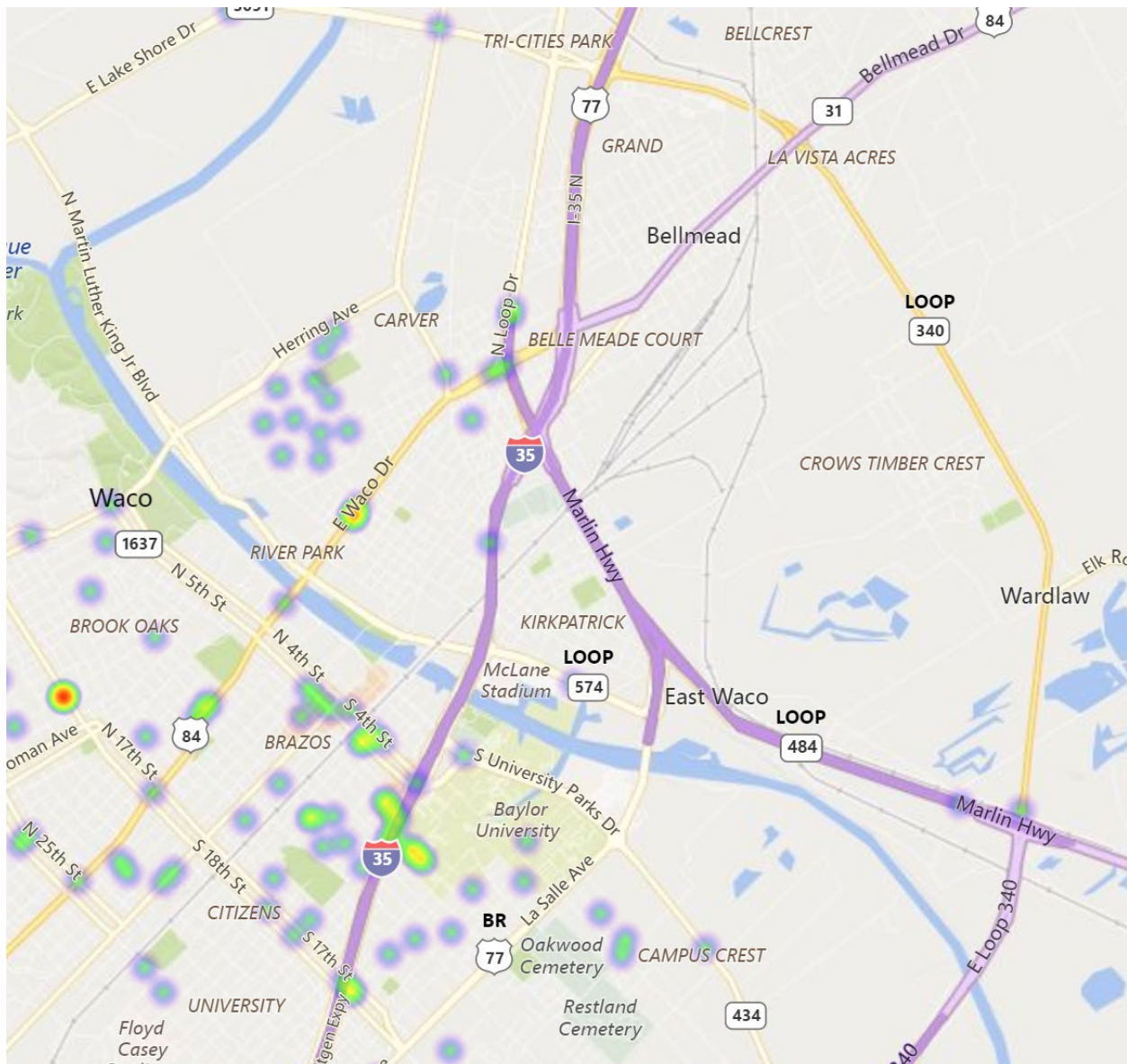
### *Pedestrian Crashes*

Figure 2 shows that pedestrian crashes from all causes and at all severities were the same in 2014 and 2018, suggesting a consistent challenge for safety in the city. Figure 3 shows a map of pedestrian collisions over the same time. The South 11th and South 12th Street intersections with I-35 have several pedestrian crash hot spots.



*Figure 2. Pedestrian Crashes of All Causes and Severities in Waco, Texas, for 2014–2018 (3)*

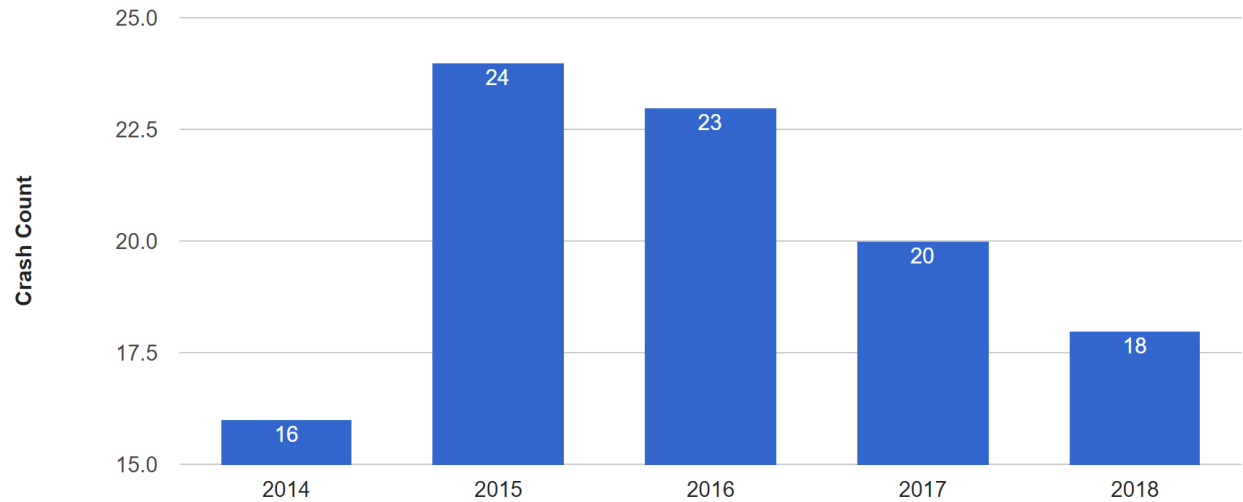




**Figure 3. Pedestrian Crash Heat Map of All Causes and Severities in Waco, Texas, for 2014–2018 (3)**

### ***Bicycle Crashes***

Figure 4 shows a decline in bicycle crashes of all causes and severities from 2014 to 2018. Figure 5 indicates crash locations are scattered, with hot spots shown in and around Baylor University and downtown, particularly at intersections with major arterials.



*Figure 4. Bicycle (Pedal Cycle) Crashes of All Causes and Severities in Waco, Texas, for 2014-2018 (3)*

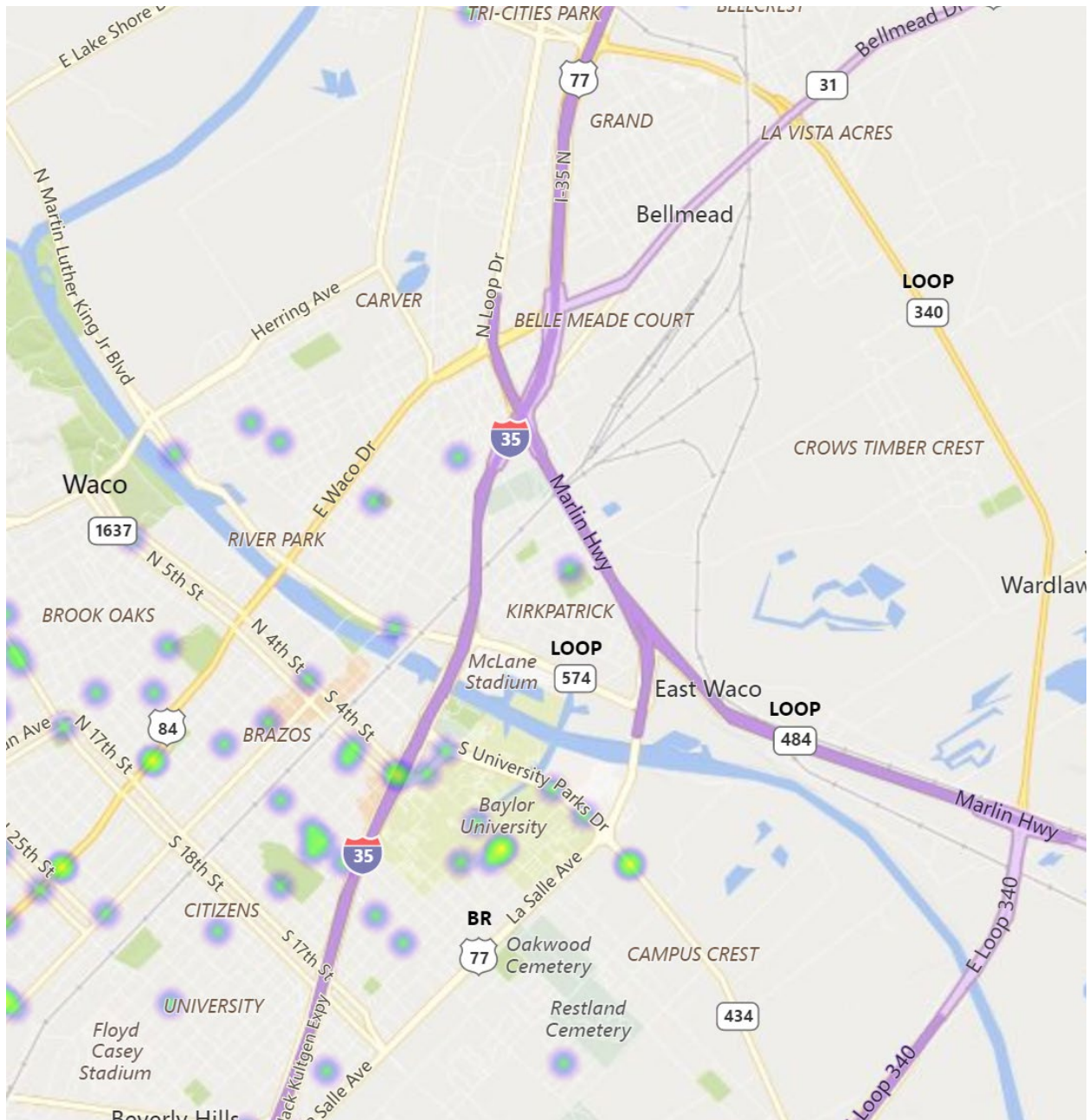
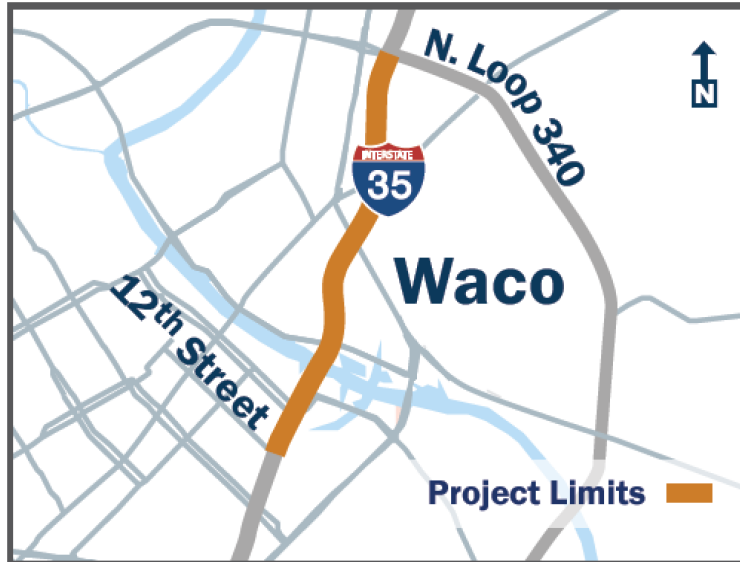


Figure 5. Bicycle (Pedal Cycle) Crash Heat Map of All Causes and Severities in Waco, Texas, for 2015–2018 (3)

### Targeting Places and Populations

Though overall trends of pedestrian and bicycle crashes in Waco suggest positive momentum, crash location data show consistent challenges in the area near I-35. The My35 Improvement Project shown in Figure 6 will improve and replace significant sections of the interstate, frontage roads, ramps, and sidewalks, but construction will cause temporary closures affecting all travel modes in the area for several years. Further, the pedestrian

bridge over I-35 at 8th Street will be permanently removed in May 2019, requiring re-direction of walkers to use existing facilities at 4th and 5th Streets during construction (4). After construction, crossing will be available at 4th and 5th Streets and 11th and 12th Streets.



*Figure 6. Waco My35 Improvement Project Limits (4)*

During the construction process, access under I-35 on 4th and 5th Streets may be limited, causing additional diversion to other crossings, such as University Parks Drive near the Brazos River.

Figure 7 shows the volume of bicycling trips taken along area routes in 2018, as recorded using Strava – a smartphone platform oriented toward fitness users. This map likely only reflects trips taken for health and recreational purposes but shows two valuable aspects of local ridership:

- Arterials near the Brazos River receive high bicycling use. These roads may be impacted with diverted vehicle traffic during construction and serve as important routes connecting Baylor University to local parkland and businesses.
- Most downtown streets receive at least some bicycling traffic logged via Strava, and therefore caution should be taken to maintain or improve bicyclist access during area improvements.



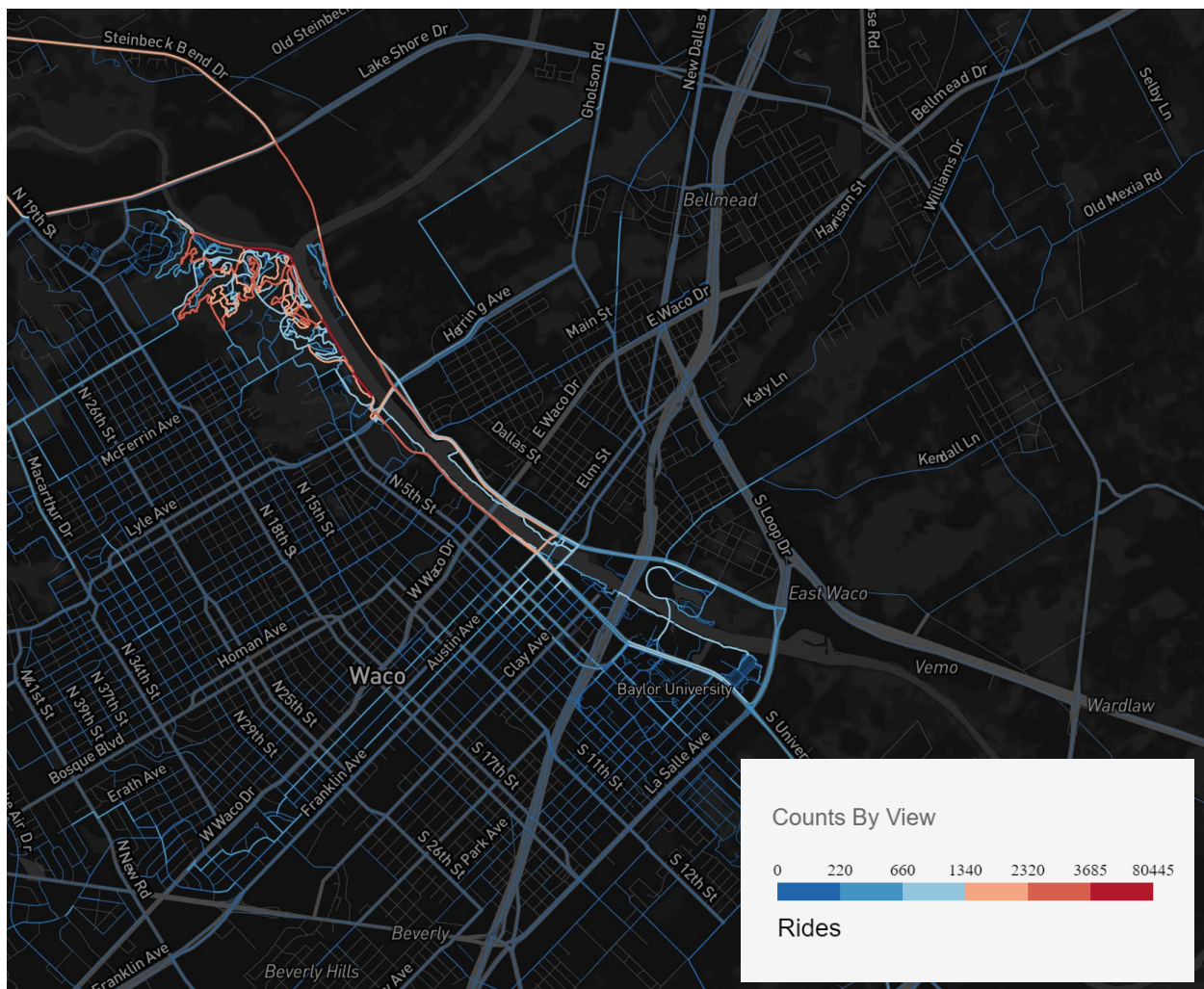


Figure 7. Bicycling Activities Recorded through Strava from January 1, 2018, to December 21, 2018

### A Solution: BE SAFE BE SEEN Initiative

BE SAFE BE SEEN is a worldwide safety campaign of education and awareness aimed primarily at children, but its messages are imperative for pedestrians and bicyclists. The BE SAFE BE SEEN Initiative allows for flexibility to adjust the program to best meet the needs of a particular community.

The TxDOT Waco District launched the BE SAFE BE SEEN Pedestrian and Bicyclist Safety Initiative to share information and resources about how to prevent and reduce pedestrian and bicyclist fatalities. The initiative is geared toward informing pedestrians, bicyclists and drivers of their shared responsibility to keep themselves and others safe on Waco area roads.

Collaboratively, the BE SAFE BE SEEN Pedestrian Safety Initiative provides a scalable, multidisciplinary program that will impact pedestrian and bicycle safety especially during I-35 reconstruction known as the Section 4B project.

The BE SAFE BE SEEN Initiative also benefits from the support and involvement of numerous other stakeholders including various departments at the City of Waco, the Waco Metropolitan Planning Organization, Waco Transit, the Waco Chamber of Commerce, City Center Waco, Baylor University, and advocacy groups.

### *Waco Mission and Goals*

Establishing a mission, goals and objectives is appropriate to document, articulate, and measure the desired outcomes of any implementation and outreach effort. The callout on the next page provides the initiative's mission, goals, and ways it supports TxDOT's vision, mission and safety goal.

### *Initial Launch in Waco*

The initial launch focused on I-35, specifically the areas impacted by the reconstruction of I-35 main lanes and frontage roads between 12th Street and North Loop 340. As TxDOT continues to improve mobility along the I-35 corridor, construction affects a number of stakeholders. This initiative seeks to communicate with particular stakeholders and address their needs and concerns.

Projects along the I-35 corridor advance the My35 goals by incorporating safer pedestrian and bicycle facilities, such as wide outside lanes for shared use with bicycles, ADA-compliant sidewalks, and designated pedestrian signals. Because construction is a necessary part of the improvement process and areas near a construction zone are potentially hazardous, the BE SAFE BE SEEN Initiative aims to inform pedestrians, especially those groups most at risk, about safely walking near or around construction zones.

This initiative collaborates with local businesses and universities and schools along I-35 in high-traffic pedestrian areas and construction areas to increase awareness of pedestrian safety. The support of advocates and outreach networks is a key to the success of the program.

The overall approach in this campaign is to start early engagement with small groups, and to grow awareness and knowledge in the population, while developing outreach materials throughout the I-35 construction process.

### **Purpose of This Guide**

This guide illustrates to the reader how the program was deployed in Waco. It presents facts that are specific to Waco but also provides examples of the kinds of information that might be useful in developing a program in another location.

## **Mission**

The BE SAFE BE SEEN Initiative in Waco, Texas, identified the following mission:

The BE SAFE BE SEEN program will increase awareness and share resources about how to prevent and reduce pedestrian and bicyclist injuries and fatalities.

## **Goals**

The program has six primary goals in support of its mission:

- Increase awareness and outreach about the shared responsibility of drivers, bicyclists and pedestrians to keep themselves and others safe on Waco area roads.
- Implement proactive communication and outreach with entities, organizations and business most directly impacted by the TxDOT – Waco 4B I-35 reconstruction project.
- Develop a consistent and continuous model for information sharing.
- Partner with local agencies, entities, organizations, businesses to conduct outreach.
- Design and develop communication tools and products that are useful and meaningful to a diverse set of stakeholders.
- Evaluate program effectiveness.

## **The Campaign**

The campaign supports TxDOT's vision, mission and safety goal, which state:

**Vision:** “Be a forward-thinking leader delivering mobility, enabling economic opportunity, and enhancing quality of life for all Texans.”

**Mission:** “Through collaboration and leadership, we deliver a safe, reliable and integrated transportation system that enables the movement of people and goods.”

**Goal:** Enhance and champion safety.

## **Structure of This Guide**

This guide is structured around the major steps needed to implement the BE SAFE BE SEEN Initiative in the TxDOT Waco District. The section titles and headings reflect the major activities that any area would need to engage in, and then the ensuing text explains how

Waco will do it, along with details about what Waco is doing and planning to do. Chapter titles are as follows:

- Chapter 2: Identify Audiences and Develop Messages,
- Chapter 3: Identify Tactics and Create Communication Tools,
- Chapter 4: Implement Be Safe Be Seen Waco, and
- Chapter 5: Evaluate the Initiative.



## 2. Identify Audiences and Develop Messages

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Informative, timely and concise communication is essential for building trust and relationships among the community's numerous and varied stakeholders. This is imperative for the success of the BE SAFE BE SEEN Initiative, and ongoing efforts to fulfill the goals of the initiative will work toward encouraging the active involvement and input of all stakeholder groups.

### **Assembling a Team**

Undertaking a program the size and scale of BE SAFE BE SEEN requires the support of local leadership and the skills and talents of those experienced in outreach to particular special populations.

One of the first steps for the Waco BE SAFE BE SEEN Initiative was to assemble local leaders and stakeholders from advocacy groups in the community to discuss the most appropriate approaches and methods to launch the initiative.

BE SAFE BE SEEN for Waco was targeted toward those at risk for pedestrian and bicycle crashes. To understand the needs of these local populations and to engage with those most likely to be able to improve outcomes, this approach included involvement with local transportation staff, professionals, and stakeholders; and the testing of materials with pedestrians and bicyclists in Waco.

The overall approach to developing appropriate target audiences and messages includes questionnaires, interviews, targeted outreach, and focus groups.

### **Questionnaire with Pedestrian and Bicycle Volunteers and Staff**

The first approach engaged with pedestrian and bicycle transportation staff and volunteers involved with the Waco Metropolitan Planning Organization. Texas A&M Transportation Institute researchers, in cooperation with TxDOT, administered a brief questionnaire based on the following key questions:

1. What are the key safety concerns for bicycling and walking in the Waco area?
2. Who are the most important people to reach in the campaign?
3. How can the BE SAFE BE SEEN team best reach those at risk for crashes?
4. What kind of messages do you think are most likely to positively impact safety?

The results from this initial questionnaire will be used to develop concepts for more in-depth interviews with safety professionals, and to support further professional contact with volunteers and staff for further questions.

## **Interviews with Safety Professionals**

Following initial contact with transportation safety staff in the Waco area, researchers will conduct semi-structured interviews to review initial concepts to implement BE SAFE BE SEEN in Waco. Interviews will be scheduled for the convenience of the interviewee and may be conducted either in person or remotely using WebEx or similar software. Questions with safety professionals will be individually tailored but will generally include the following concerns:

- recent or existing safety outreach effectiveness,
- demographic trends concerning pedestrian and bicyclist safety,
- technology and transportation mode trends concerning pedestrian and bicyclist safety,
- organizations and individuals to involve in the campaign,
- ideal conditions for long-term pedestrian and bicyclist safety,
- challenges for improving safety in Waco, and
- opportunities that BE SAFE BE SEEN should seize.

Using interview results, researchers and staff will draft outreach materials for the campaign.

## **Awareness Outreach with Target Populations**

To evaluate and improve awareness of transportation safety rules and transportation system closures, BE SAFE BE SEEN will conduct outreach at targeted sites and on social media. On-location meetings, tabling events and intercept surveys will be conducted at key crossings of I-35 and could include the following strategies:

- Baylor University student government coordination and meetings;
- table staffing to provide materials on safety, construction and wayfinding, with ice water and fruit for visitors; and
- manual traffic counts to estimate travel mode (pedestrian, bicycle or scooter), gender and helmet use.

The BE SAFE BE SEEN Initiative aims to address pedestrian safety and provide resources to individuals and groups that are impacted by the construction project on I-35. The program uses researched facts to increase awareness and encourage behaviors that will reduce the risk of pedestrian injuries and fatalities. Figure 8 is an example of facts that can be used in materials to promote safe behaviors.

Results from the awareness outreach will be used to further refine materials for focus group testing.



Figure 8. Facts That Drive Messages for Safe Behaviors

## Focus Group Testing of Draft Materials

Proactively evaluating how well messages resonate with particular audiences can help improve outreach materials for specific audiences. The initiative will use focus group testing with participants recruited through project partners.

### 3. Identify Tactics and Create Communication Tools

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Communication tactics and tools should be selected based on the communication needs and preferences of the stakeholder groups and target audiences. This chapter describes communication tactics and tools that may be useful to consider for the Waco BE SAFE BE SEEN Initiative.

#### Tactics

##### *Coordinate Meetings*

The team will *coordinate meetings* with at least the following key stakeholders:

- representatives of the I-35 Communication Steering Committee;
- businesses along the I-35 project area;
- Baylor University:
  - the I-35 subcommittee and
  - student leadership;
- City Center Waco;
- the Waco Chamber of Commerce;
- City of Bellmead;
- Bellmead Chamber of Commerce;
- Waco Transit; and
- schools along or near the I-35 project area.

##### *Organize Workshops*

The team will *organize workshops* with community partners (organizations and individuals in the community that also work with the identified stakeholder groups).

##### *Hold Briefings*

The team will *hold briefings* for elected officials and community leaders. The team will contact and coordinate meetings with elected officials and/or schedule appearances at various council, commission or board meetings to:

- provide information about the BE SAFE BE SEEN Initiative;
- answer questions about the BE SAFE BE SEEN Initiative;
- establish regular, two-way communications to exchange information about planned events and activities; and
- assist in building the stakeholder database and identifying preferences for receiving updates and information.

### *Conduct Media Outreach*

The team will conduct a well-planned and well-executed *media outreach* effort that will provide an avenue to disseminate information to the public and to promote and encourage awareness about the BE SAFE BE SEEN Initiative.

### *Lead Special Events*

The team will plan and *lead special events* to deliver messages and share information about the BE SAFE BE SEEN Initiative, especially in areas near construction zones.

### *Distribute Information via Third-Party Groups and Organizations*

The team may use third-party groups and organizations to help distribute information via websites and email networks. These could include newsletters and email blasts distributed by the City of Waco, the Waco Metropolitan Planning Organization, Waco Transit, Baylor University, neighborhood groups, religious institutions, etc. Specific opportunities can be identified when stakeholder meetings, briefings and other outreach activities take place.

## **Tools**

TxDOT uses a variety of informational tools and materials to assist with outreach efforts. In recognition of the Spanish-speaking population and the presence of environmental justice populations in the community, many of the tools are provided in both Spanish and English. TxDOT will offer interpreters at public meetings to interact with Spanish-speaking individuals. TxDOT will also provide materials and translators for other languages or for persons with disabilities upon request.

### *Maps*

Easy-to-understand maps and schematics for public distribution and online posting will show planned construction and the safest ways to navigate to frequently visited destinations such as schools or local businesses.

### *Handouts with Enhanced Citizen Engagement Messaging*

The handouts contain key messages and general information, including maps and other visuals, information on personal and societal costs/benefits, and safety information.

### *Community Presentations*

A PowerPoint template and master slide deck will be developed and used as the basis for all presentations that TxDOT may give over the course of the BE SAFE BE SEEN Initiative.

### *Third-Party Information Materials*

The team will provide window clings, table tents and other informational materials, such as rack cards, with pedestrian safety information to hotels and businesses in high pedestrian crash occurrence areas.

### *HERO Truck Decals*

The team will partner with the HERO program to provide magnets for the side of HERO trucks to enhance visibility of the BE SAFE BE SEEN Initiative.

### *Pavement Clings*

The BE SAFE BE SEEN team plans to develop and implement pavement clings to support safe pedestrian and bicyclist wayfinding in and around the I-35 improvement project. Figure 9 shows two examples of how this approach works, which would be tailored to the needs of the campaign.



*Figure 9. Two Examples of Wayfinding Signs for Temporary Use on Pavement*

### *Social Media*

Organizational social media, such as City Center Waco, Baylor University and TxDOT, will help spread knowledge about safety and wayfinding during construction. The following two accounts are considered to be key informational outlets, but the campaign will work with other governments, non-profits, media and individuals to share information widely:

- Baylor University Department of Public Safety (@BUDPS) and
- TxDOT Waco (@TxDOTWacoPIO, Ken Roberts).

### *Traveler Notification System*

In addition to social media, TxDOT will implement notifications on closures and wayfinding through their existing strategies, including email and text messages for My35 subscribers. Additionally, mobile signs will be placed to direct travelers of changes to the roadway.

## 4. Implement Be Safe Be Seen Waco

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### **Budgeting**

[to be added]

### **Scheduling**

[to be added]

## 5. Evaluate the Initiative

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### **Evaluation Plan**

[to be added]

### **Analysis**

[to be added]

### **Recommendations for Next Steps and Transferability**

[to be added]



## Appendices

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- Questionnaire Results
- Interview Results
- Focus Group Results

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