

# Vision Zero Austin: Spring 2023 Update



May 16, 2023



Zero deaths. Zero serious injuries.  
Zero excuses.



TRANSPORTATION  
PUBLIC WORKS

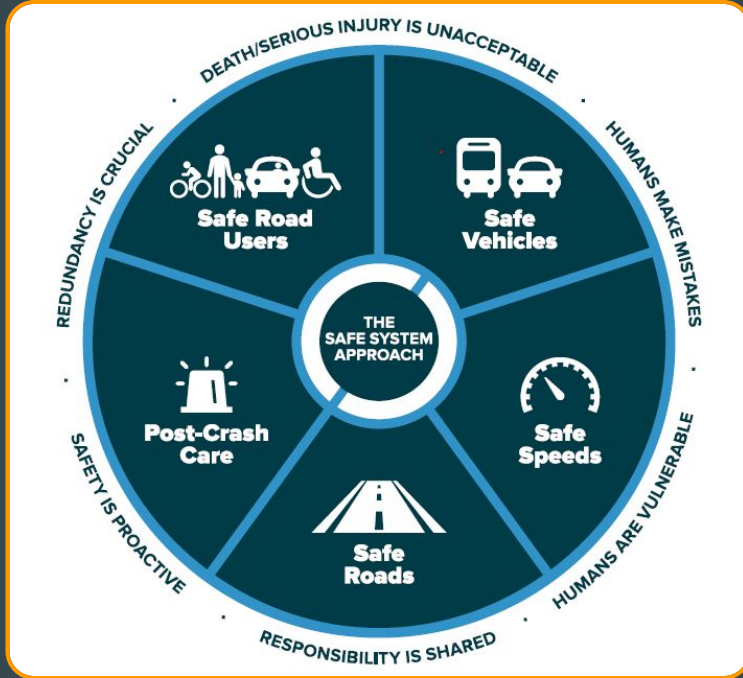
# Years of Life Lost

# 695

(Through 3/31/2023)



# Vision Zero / Safe Systems Approach



- An ethical approach to safety and mobility - fatalities and serious injuries should not be acceptable
- Human body is vulnerable and humans make mistakes
- Separate users in space and time
- Cannot predict where next severe crash happens; we can predict based on conditions where it is more likely to occur

# Vision Zero / Safe Systems Approach



# Austin Data and Trends

## By Mode

### Fatal Crashes\*

Mode	2023	%	2022	%
Pedestrians	10	38.5%	8	34.8%
Bicyclists	2	7.7%	1	4.3%
Motorcyclist	0	0.0%	7	30.4%
Motorist	14	53.8%	7	30.4%
	<hr/> 26		<hr/> 23	

### Serious Injury Crashes\*

Mode	2023	%	2022	%
Pedestrians	20	18.7%	21	19.1%
Bicyclists	4	3.7%	5	4.5%
Motorcyclist	13	12.1%	16	14.5%
Motorist	70	65.4%	68	61.8%
	<hr/> 107		<hr/> 110	

\* Data through 03/31/2023

Data disclaimer: Data accessed on 04/14/2023. There may be additional reports filed or changes which may impact these numbers before they are final.

# Austin Data and Trends

## By Mode

### Fatalities\*

Mode	2023	%	2022	%
Pedestrians	10	38.5%	8	33.3%
Bicyclists	2	7.7%	1	4.2%
Motorcyclist	0	0.0%	7	29.2%
Motorist	14	53.8%	8	33.3%
	<hr/> 26		<hr/> 24	

\* Data through 03/31/2023

### Serious Injuries\*

Mode	2023	%	2022	%
Pedestrians	21	16.9%	23	18.4%
Bicyclists	4	3.2%	5	4.0%
Motorcyclist	14	11.3%	16	12.8%
Motorist	85	68.5%	81	64.8%
	<hr/> 124		<hr/> 125	

Data disclaimer: Data accessed on 04/14/2023. There may be additional reports filed or changes which may impact these numbers before they are final.

# Austin Data and Trends

## People walking and biking - time of day patterns

### Cyclist Crashes (4/1/2020 to 3/31/2023)

#### Hour and Day vs. Day of Week by Crashes

HOURL BIN	MON	TUE	WED	THU	FRI	SAT	SUN	Total
00:00 to 03:59	3	3			2	7	5	20
04:00 to 07:59	4	13	7	6	1	1	2	34
08:00 to 11:59	17	11	15	17	10	8	20	98
12:00 to 15:59	21	22	19	20	21	23	13	139
16:00 to 19:59	29	40	29	22	29	21	22	192
20:00 to 23:59	9	12	15	18	20	13	4	91
Total	83	101	85	83	83	73	66	574



### Cyclist Fatal/Serious Injury Crashes (4/1/2020 to 3/31/2023)

#### Hour and Day vs. Day of Week by Crashes

HOURL BIN	MON	TUE	WED	THU	FRI	SAT	SUN	Total
00:00 to 03:59	2				1	1	3	7
04:00 to 07:59	1			3			1	5
08:00 to 11:59	2	1	5	2			3	13
12:00 to 15:59	2	4	3	3	3	3		18
16:00 to 19:59	3	7	4	1	4	3	4	26
20:00 to 23:59	2	3	6	3	3	2	1	20
Total	12	15	18	12	11	9	12	89

### Pedestrian Crashes (4/1/2020 to 3/31/2023)

#### Hour and Day vs. Day of Week by Crashes

HOURL BIN	MON	TUE	WED	THU	FRI	SAT	SUN	Total
00:00 to 03:59	9	9	9	7	19	30	26	109
04:00 to 07:59	12	21	21	12	14	10	12	102
08:00 to 11:59	18	20	30	15	18	13	14	128
12:00 to 15:59	21	20	22	23	27	18	13	144
16:00 to 19:59	36	41	45	36	37	27	33	255
20:00 to 23:59	36	34	27	29	43	47	32	248
Total	132	145	154	122	158	145	130	986



### Pedestrian Fatal/Serious Injury Crashes (4/1/2020 to 3/31/2023)

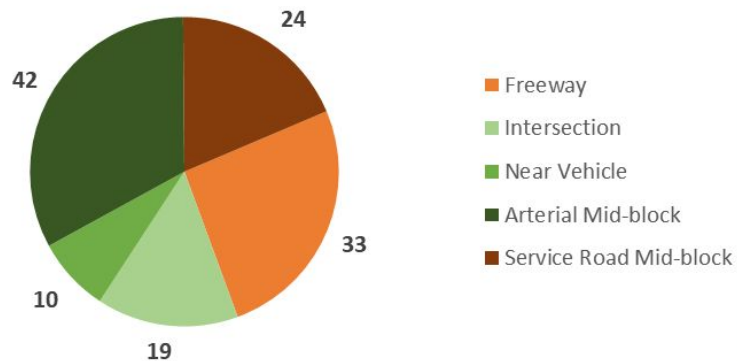
#### Hour and Day vs. Day of Week by Crashes

HOURL BIN	MON	TUE	WED	THU	FRI	SAT	SUN	Total
00:00 to 03:59	4	5	7	3	9	17	9	54
04:00 to 07:59	1	6	11	4	7	3	8	40
08:00 to 11:59	2	7	6	6	6	1	6	34
12:00 to 15:59	2	1	4	3	5	6	8	29
16:00 to 19:59	10	15	9	9	10	10	10	73
20:00 to 23:59	15	15	10	7	16	22	11	96
Total	34	49	47	32	53	59	52	326

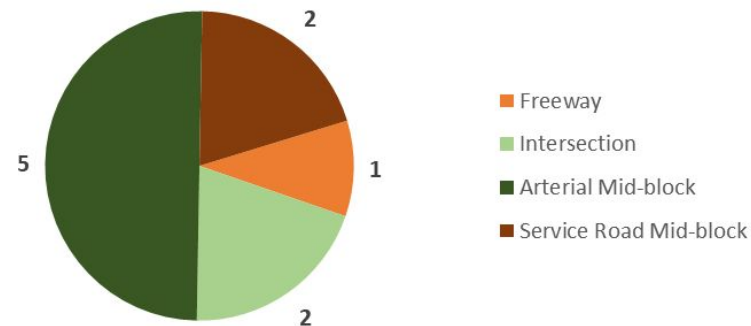
# Austin Data and Trends

## People walking and biking - roadway location patterns

Pedestrian Fatalities  
(4/1/2020 through 3/31/2023)



Cyclist Fatalities  
(4/1/2020 through 3/31/2023)

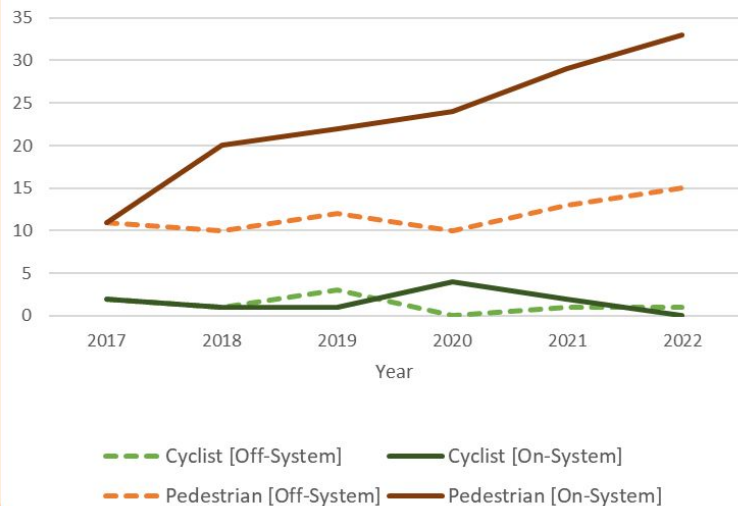




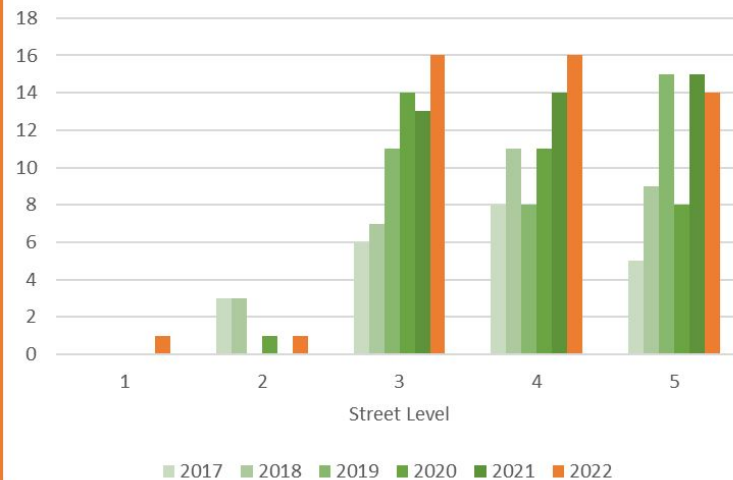
# Austin Data and Trends

## People walking and biking - geographic trends

Pedestrian and Cyclist Fatalities - by Roadway Ownership  
(2017 through 2022)



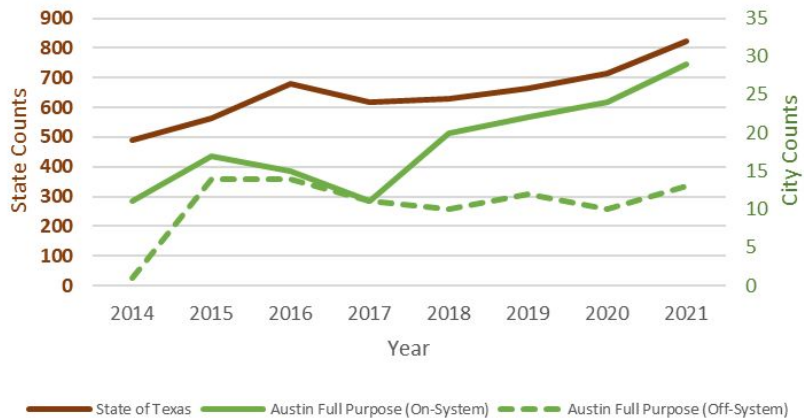
Pedestrian Fatalities by ASMP Street Level  
(2017 through 2022)



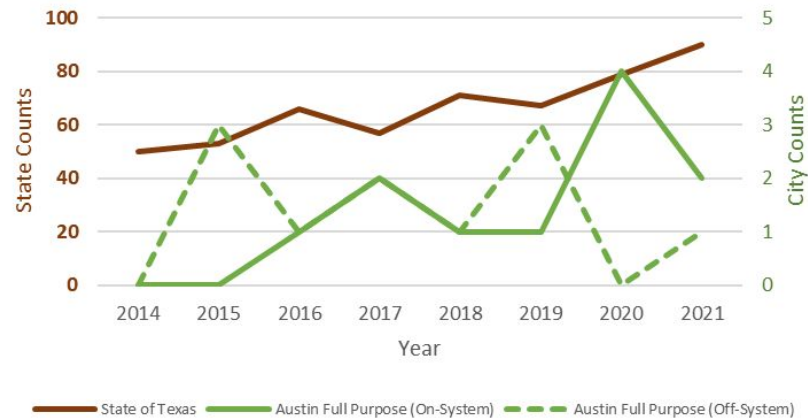
# Austin Data and Trends

People walking and biking - comparing to statewide trends

## Pedestrian Fatalities by Year



## Cyclist Fatalities by Year



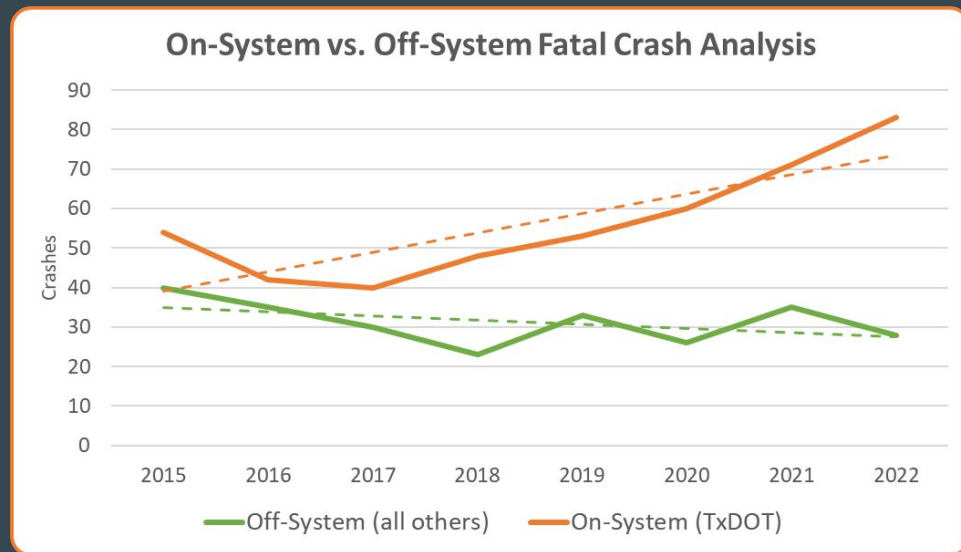
# Austin Data and Trends

All fatal crashes - by roadway ownership

Year	Off-System Fatal Crash %	On-System Fatal Crash %
2019	38.37%	61.63%
2020	30.23%	69.77%
2021	33.02%	66.98%
2022	25.23%	74.77%
2023	34.62%	65.38%
	32.29%	67.71%

\* Through 3/31/2023

Data disclaimer: Data accessed on 04/14/2023. There may be additional reports filed or changes which may impact these numbers before they are final.



# Austin Data and Trends

## Key Takeaways: Comparing 2022 vs 2023 (thru March)

1. Combined, the total of fatal and suspected serious injury crashes are **flat in 2023 compared to 2022**.
  - Fatal crashes are **up ~13%** as compared to last year, suspected serious injury crashes are **down ~3%**; Total reportable crashes citywide are **down ~6%**.
2. Evening and early morning hours (8PM to 4AM) account for:
  - 14 out of the 26 fatal crashes (33% of day, **~54%** of fatal crashes)
  - **7 out of 10** (70%) pedestrian fatalities occurred in this period
3. On-system fatalities continue to be at least 65% of all Austin traffic-related fatalities

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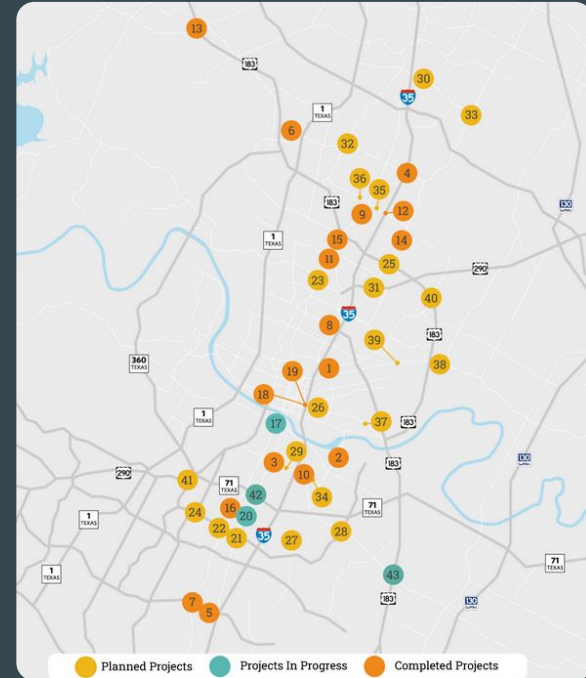


# Engineering

## Bond projects

### 1. Intersection safety (construction during 2023):

- a. 7th/8th and IH-35 frontage (2016 Bond)
- b. Barton Springs Road and South 1st St. (2016)
- c. Koenig Lane and North Lamar Blvd. (2016)
- d. Stassney Lane and South Congress Ave. (2018)
- e. Stassney Lane and South 1st St. (2018)
- f. Congress Avenue and Ramble Ln. (2018/HSIP)
- g. Congress Avenue and Alpine Rd. (2018/HSIP)
- h. Burleson Rd. and US183 (2020)
- i. Riverside Dr. and Metro Center (2020)
- j. South Lamar Blvd. and West Gate Blvd. (2020)



# Engineering

## Bond projects

### 2. Systemic safety

- Curves
- Access management
- Signals - protected left turns
- Pedestrian Crossing Program

### 3. Lighting

- 4 safety lighting projects through federal grant (HSIP)
- Corridors and intersection analysis underway
- Anticipated Citywide Lighting Study

Safety improvements on North Lamar Boulevard from West 25th to 30th streets



for nighttime and urban intersections. Potential conflicts on a four-lane street with a raised median.

**28%**

for nighttime injury crashes on rural and urban highways.<sup>1</sup>



# Evaluation: Vision Zero Analytics



Ensure dollars spent are having the intended impact of improving safety; continuous improvement

- Intersection safety - **30% reduction in the crashes** per year following project completion and **31% reduction in serious injury or fatal crashes** per year
- Left turns at signalized intersections - **64% reduction** in the annualized number of Opposite Direction-Left Turn injury crashes
- Dynamic Speed Display Devices - UT Austin School of Engineering study on impact for severity and frequency of crashes; **30%+ reduction in crashes and fewer severe crashes**

Crash reductions seen at Austin's major intersection safety locations



## Summary

Key results about how intersection data showed substantial reductions in rate of Vision Zero's Top 100

## Data Analysis

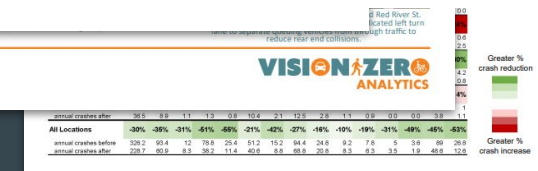
Data analysis uses three methods:

- Method 1: Speed distribution charts with the vehicle speed on the x-axis and the number of vehicles traveling at that speed on the y-axis.
- Method 2: Crash reduction charts which depict the average number of crashes per month from February to September before and after DSDD installation.
- Method 3: Injury analysis charts that track the severity of car crashes at each site, before and after installation of the DSDDs

Below is a table of the results from each observed intersection:

Site	Crash Reduction
Parmer-Dessau	32%
Riverside-Pleasant Valley	72%
I-35	44%
North Lamar	46%
Cesar Chavez	--
Congress	48%
Menchaca	37%

Executive Summary, Table 2. Vision-Zero DSDD Percent Crash Reduction per Intersection



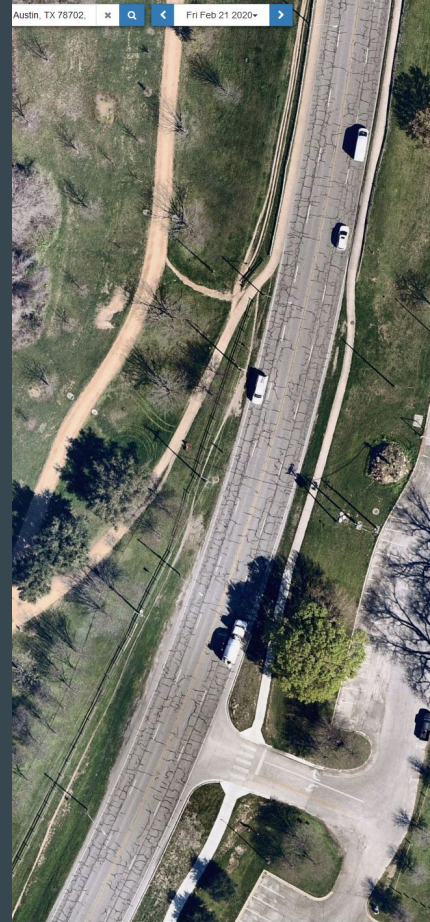


# Evaluation: Vision Zero Analytics

## Longhorn Dam/S. Pleasant Valley Project Results

- 82% reduction in injury/fatal crashes on an annualized basis
- 46% reduction in total crashes on an annualized basis
- 46% reduction in crashes for people walking, biking, scooting on an annualized basis
- 68% reduction in the top 2 crash types tied to rear-ends on an annualized basis

S. Pleasant Valley  
and Krieg Fields





# Policy/Procedures

- Access Management Guidelines
- Signal Left Turn Guidelines
- Intersection Control Evaluation / Roundabout Design
- Enforcement Memo (Dec. 2022)
  - Narrow focus of traffic enforcement to critical driver safety behaviors
  - Alternatives to enforcement
  - Think holistically of costs to community of traffic crashes



## MEMORANDUM

**TO:** Mayor and Council Members

**FROM:** Richard Mendoza, P.E., Interim Director, Austin Transportation Department  
Joseph Chacon, Police Chief, Austin Police Department *[Signature]*

**DATE:** December 8, 2022

**SUBJECT:** Council Resolution No. 20220616-052: Increased Traffic Safety Enforcement for Major Roadways - Final Staff Update

This memorandum provides a final update on Resolution No. 20220616-052. This memo addresses the resolution's directive to provide Council a final report.

### Key Points

Traffic fatalities remain at record-high levels, and most of them occur on high-speed, high-volume roadways owned by the State within the city limits. Narrowly-focused traffic enforcement on these roadways remains a critical need as redesign options are limited, primarily due to lack of control by the City. When taking into consideration the local public safety costs needed to respond to tens of thousands of car crashes after they occur, and the amount of time patrol officers spend responding to the lowest priority calls, APD and ATD will work together to continually examine what is possible through prioritizing current APD resources towards proactive roadway safety as we anticipate APD staffing levels to continue at lower-than-authorized levels for years to come. There are also several alternatives to traditional, in-person enforcement for arterial roadways, as described in this memo, which could move forward through local policy directives, state legislative changes, and/or new dedicated resources.

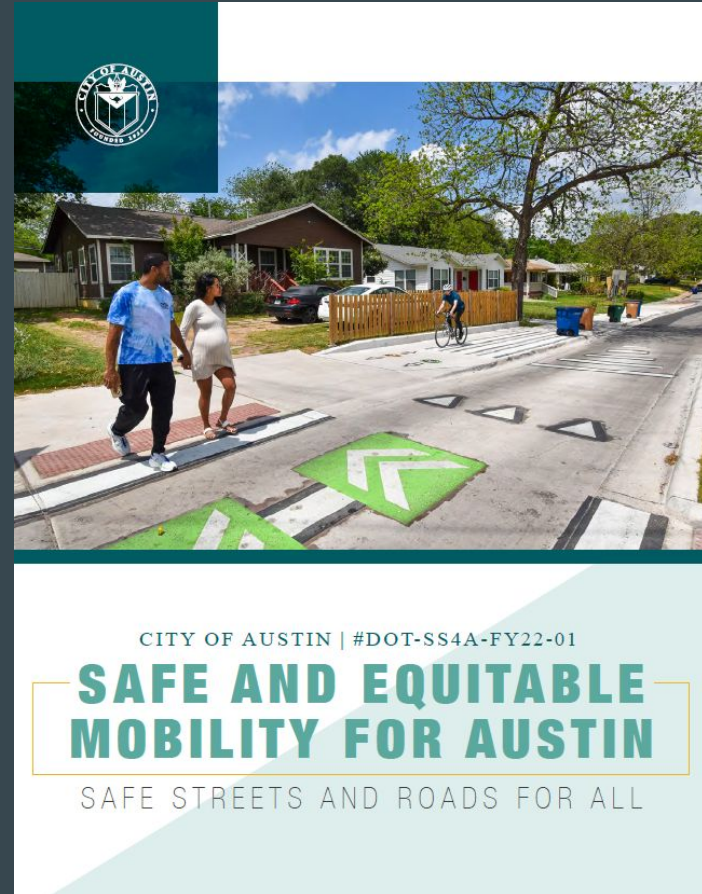
### Brief Background and Context

Vision Zero was first adopted by City Council in 2015 as it was incorporated into Imagine Austin. This policy goal commits the City to a goal of zero traffic-related deaths and serious injuries. Austin's Vision Zero approach leads with engineering solutions as the primary way to reduce severe crashes over time. Community-supported bonds have enabled dozens of engineering projects which are showing [significant reductions](#) in severe crashes at those locations. However, traffic fatalities citywide reached a record high in 2021 while serious injuries were lower than the recent high in 2019. In 2022, as of November 1st, 91 people have died within Austin's city limits and another 466 people have been seriously injured in traffic-related crashes. A growing share of fatal crashes are happening on freeways, frontage roads, and major arterials that are not owned by the City. This growing disparity reflects a need for strategies that can be implemented on roadways for which redesign is outside of the City's control.



# New Funding: Safe Streets for All - Federal Grant

- \$22.8M of federal funding for applicable project costs
- Strong focus on reducing traffic-related fatalities and serious injuries with proven safety countermeasures, equity, ability to deliver within 5 years
- Roundabouts, protected intersections, systemic safety along corridors with identified needs, safety lighting, Pedestrian Hybrid Beacons, some planning and education efforts



# Achieving Our Policy Goals

- Scale up Austin's Vision Zero and mobility bond projects and initiatives; deliver on federal grants received; continued support from policymakers and City leadership
  - Safer roadway designs with necessary geometric changes
  - Transportation lighting for all modes
  - Narrowly-focused traffic safety enforcement
- Implementation of Project Connect
- Collaboration with TxDOT
- State and local legislative changes
  - Speed limit setting
  - Land use
  - Enforcement/prosecution

# Discussion



Southwest corner of Barton Springs/South 1st as construction progresses



TRANSPORTATION  
PUBLIC WORKS

