Implementing Vision Zero in Austin

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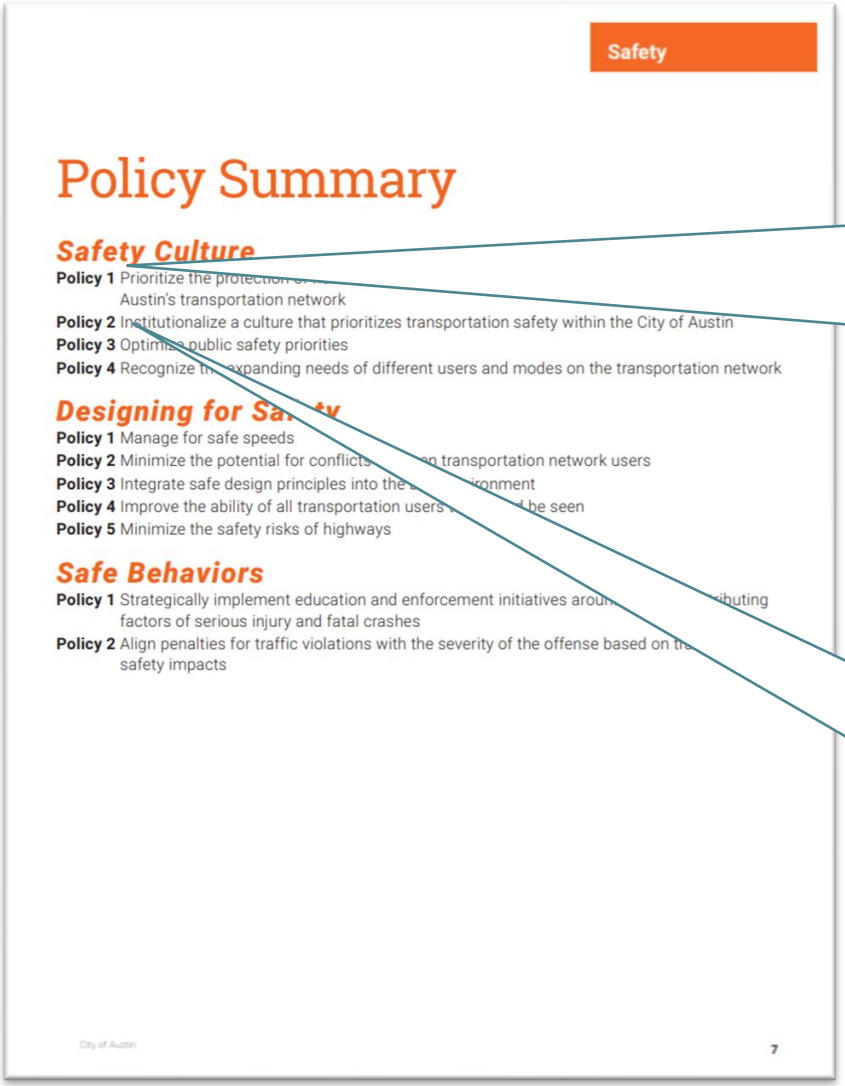
Implementing Vision Zero in Austin

VISION ZERO

Policy Direction

Implementing Vision Zero in Austin

Policy Direction


Safety

Policy Summary

Safety Culture

Policy 1 Prioritize the protection o…
Austin's transportation network
Policy 2 Institutionalize a culture that prioritizes transportation safety within the City of Austin
Policy 3 Optimize public safety priorities
Policy 4 Recognize th… expanding needs of different users and modes on the transportation network

Designing for Sa… ty

Policy 1 Manage for safe speeds
Policy 2 Minimize the potential for conflicts … n transportation network users
Policy 3 Integrate safe design principles into the … ronment
Policy 4 Improve the ability of all transportation users … be seen
Policy 5 Minimize the safety risks of highways

Safe Behaviors

Policy 1 Strategically implement education and enforcement initiatives arou… ibuting factors of serious injury and fatal crashes
Policy 2 Align penalties for traffic violations with the severity of the offense based on th… safety impacts

City of Austin 7

Safety Culture

Policy 1

Prioritize the protection of human life over all else in the planning, design, and operation of Austin's transportation network

Policy 2

Institutionalize a culture that prioritizes transportation safety within the City of Austin

austintexas.gov/department/austin-strategic-mobility-plan

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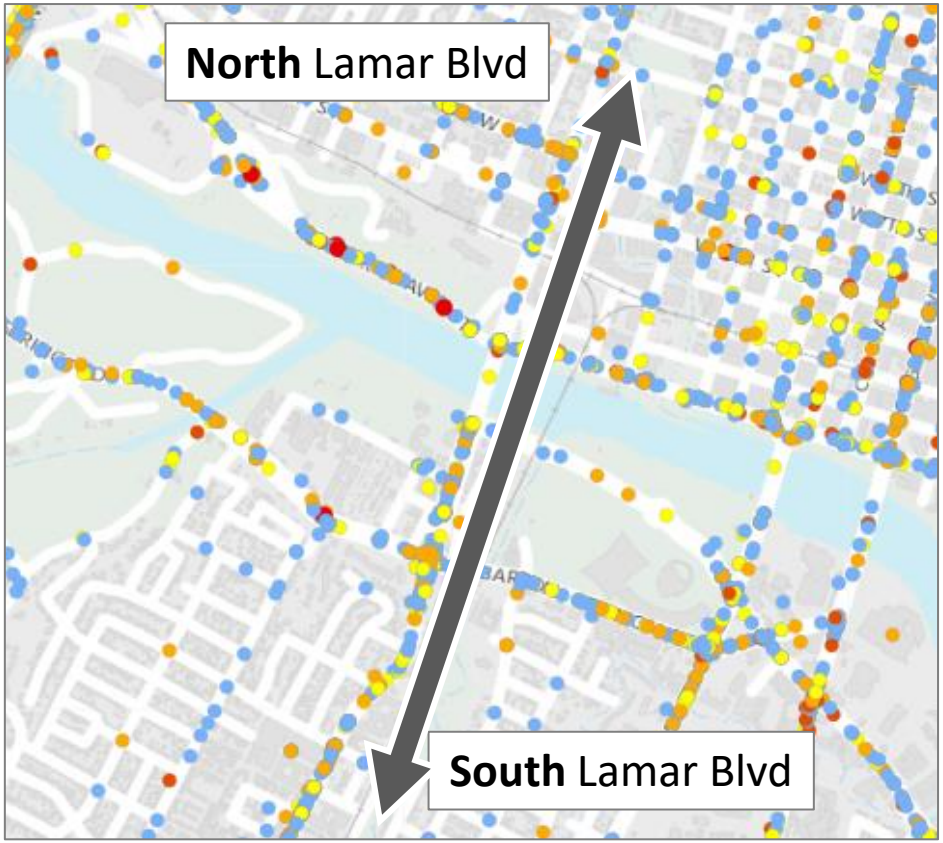
Crash Data Management



crash_id	rpt_street_name	rpt_street_sfx
17103958	BURNET RD	RD
13955659	BURNET RD NB	
15322543	BURNETRD	
13000433	BURNETT	RD
15309303	BURNETT RD	
12357645	BURNETT RD	RD
16402819	BURNET ROAD	RD

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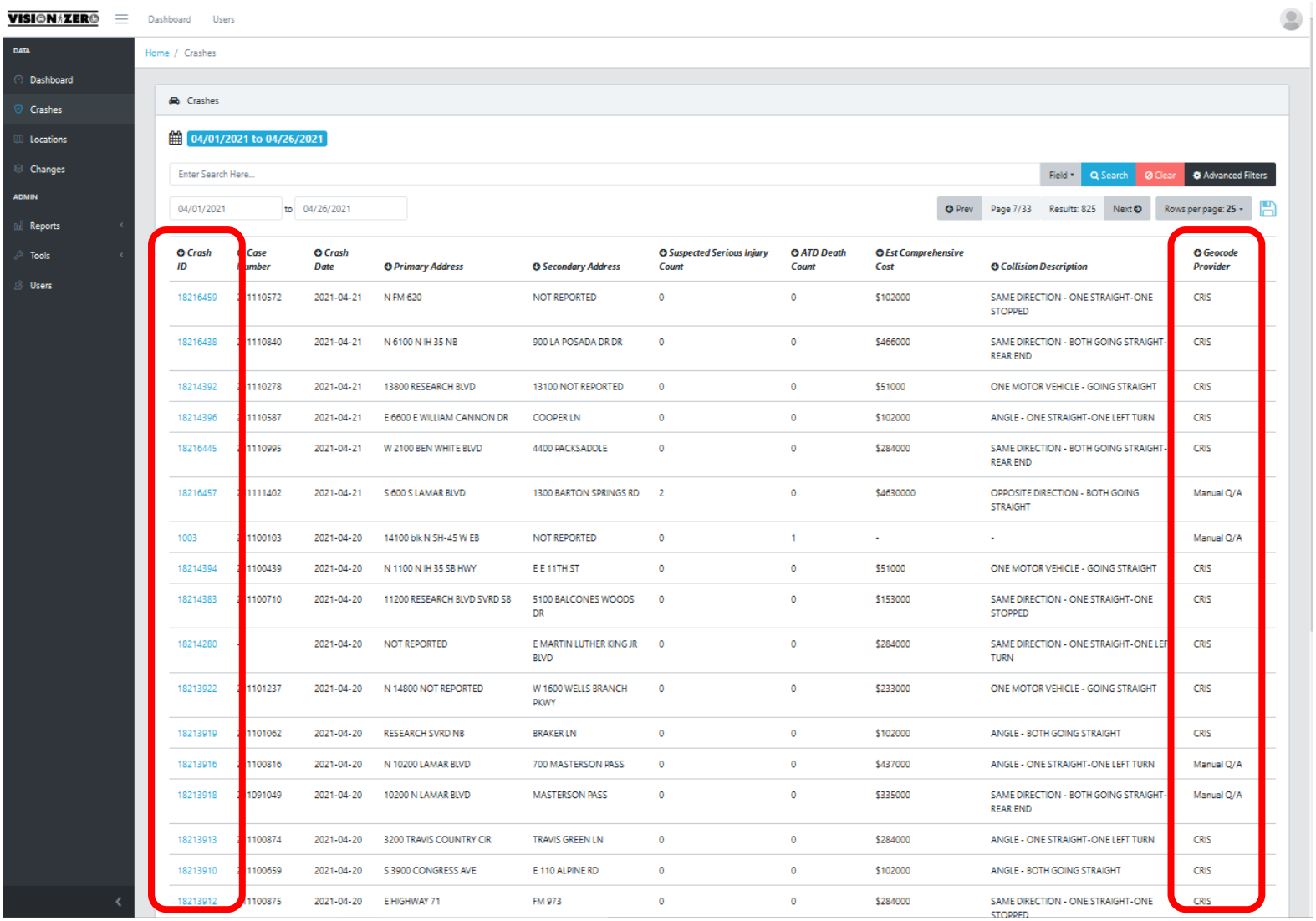
Crash Data Management



Crash ID	Case Number	Crash Date	Primary Address	Secondary Address	Suspected Serious Injury Count	ATD Death Count	Est Comprehensive Cost	Collision Description	Geocode Provider
18216459	1110572	2021-04-21	N FM 620	NOT REPORTED	0	0	$102000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	CRIS
18216438	1110840	2021-04-21	N 6100 N IH 35 NB	900 LA POSADA DR DR	0	0	$466000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	CRIS
18214392	1110278	2021-04-21	13800 RESEARCH BLVD	13100 NOT REPORTED	0	0	$51000	ONE MOTOR VEHICLE - GOING STRAIGHT	CRIS
18214396	1110587	2021-04-21	E 6600 E WILLIAM CANNON DR	COOPER LN	0	0	$102000	ANGLE - ONE STRAIGHT-ONE LEFT TURN	CRIS
18216445	1110995	2021-04-21	W 2100 BEN WHITE BLVD	4400 PACKSADDLE	0	0	$284000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	CRIS
18216457	1111402	2021-04-21	S 600 S LAMAR BLVD	1300 BARTON SPRINGS RD	2	0	$4630000	OPPOSITE DIRECTION - BOTH GOING STRAIGHT	Manual Q/A
1003	1100103	2021-04-20	14100 blk N SH-45 W EB	NOT REPORTED	0	1	-	-	Manual Q/A
18214394	1100439	2021-04-20	N 1100 N IH 35 SB HWY	E E 11TH ST	0	0	$51000	ONE MOTOR VEHICLE - GOING STRAIGHT	CRIS
18214383	1100710	2021-04-20	11200 RESEARCH BLVD SVRD SB	5100 BALCONES WOODS DR	0	0	$153000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	CRIS
18214280		2021-04-20	NOT REPORTED	E MARTIN LUTHER KING JR BLVD	0	0	$284000	SAME DIRECTION - ONE STRAIGHT-ONE LEF TURN	CRIS
18213922	1101237	2021-04-20	N 14800 NOT REPORTED	W 1600 WELLS BRANCH PKWY	0	0	$233000	ONE MOTOR VEHICLE - GOING STRAIGHT	CRIS
18213919	1101062	2021-04-20	RESEARCH SVRD NB	BRAKER LN	0	0	$102000	ANGLE - BOTH GOING STRAIGHT	CRIS
18213916	1100816	2021-04-20	N 10200 LAMAR BLVD	700 MASTERSON PASS	0	0	$437000	ANGLE - ONE STRAIGHT-ONE LEFT TURN	Manual Q/A
18213918	1091049	2021-04-20	10200 N LAMAR BLVD	MASTERSON PASS	0	0	$335000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	Manual Q/A
18213913	1100874	2021-04-20	3200 TRAVIS COUNTRY CIR	TRAVIS GREEN LN	0	0	$284000	ANGLE - ONE STRAIGHT-ONE LEFT TURN	CRIS
18213910	1100659	2021-04-20	S 3900 CONGRESS AVE	E 110 ALPINE RD	0	0	$102000	ANGLE - BOTH GOING STRAIGHT	CRIS
18213912	1100875	2021-04-20	E HIGHWAY 71	FM 973	0	0	$284000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	CRIS

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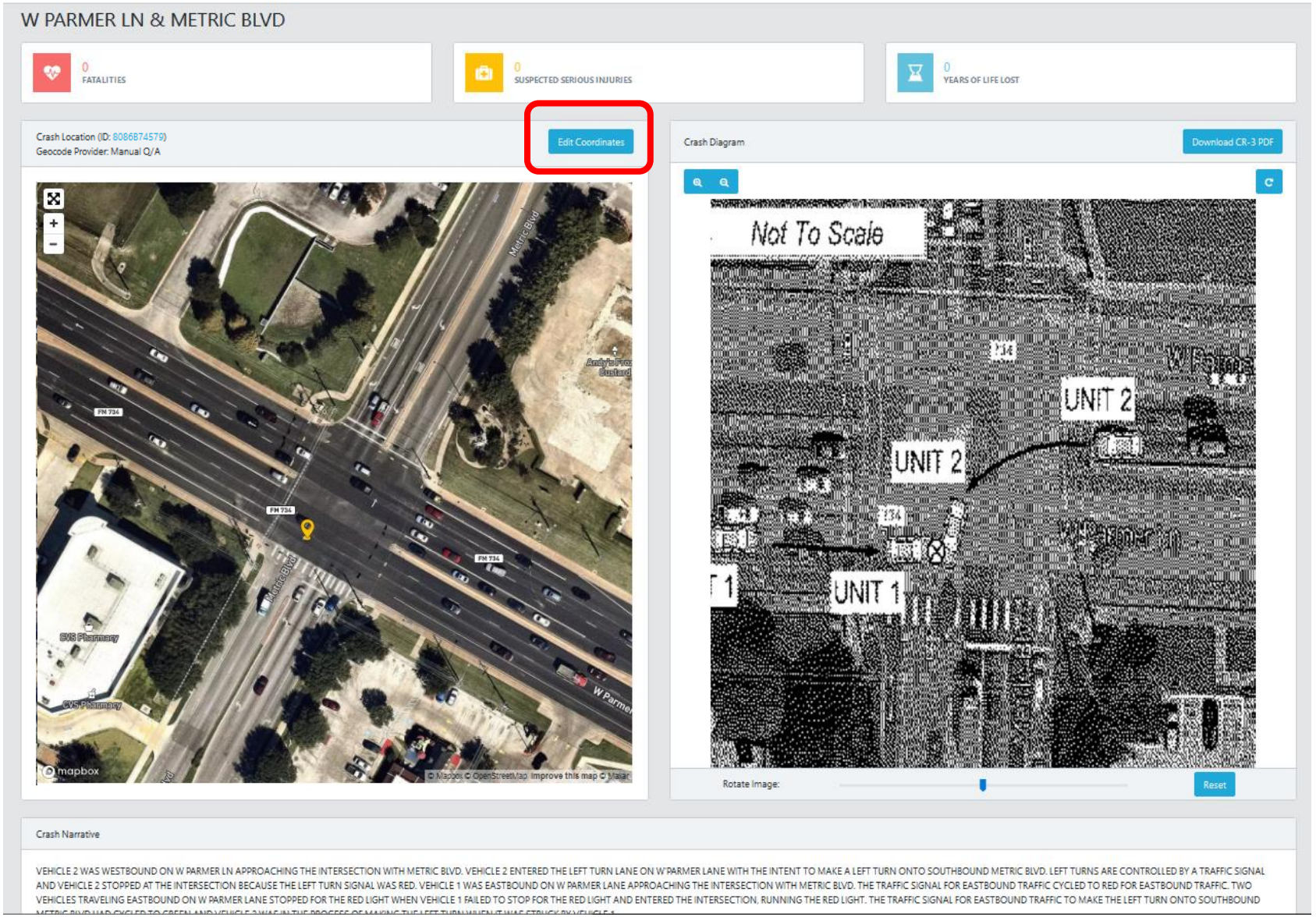
Crash Data Management



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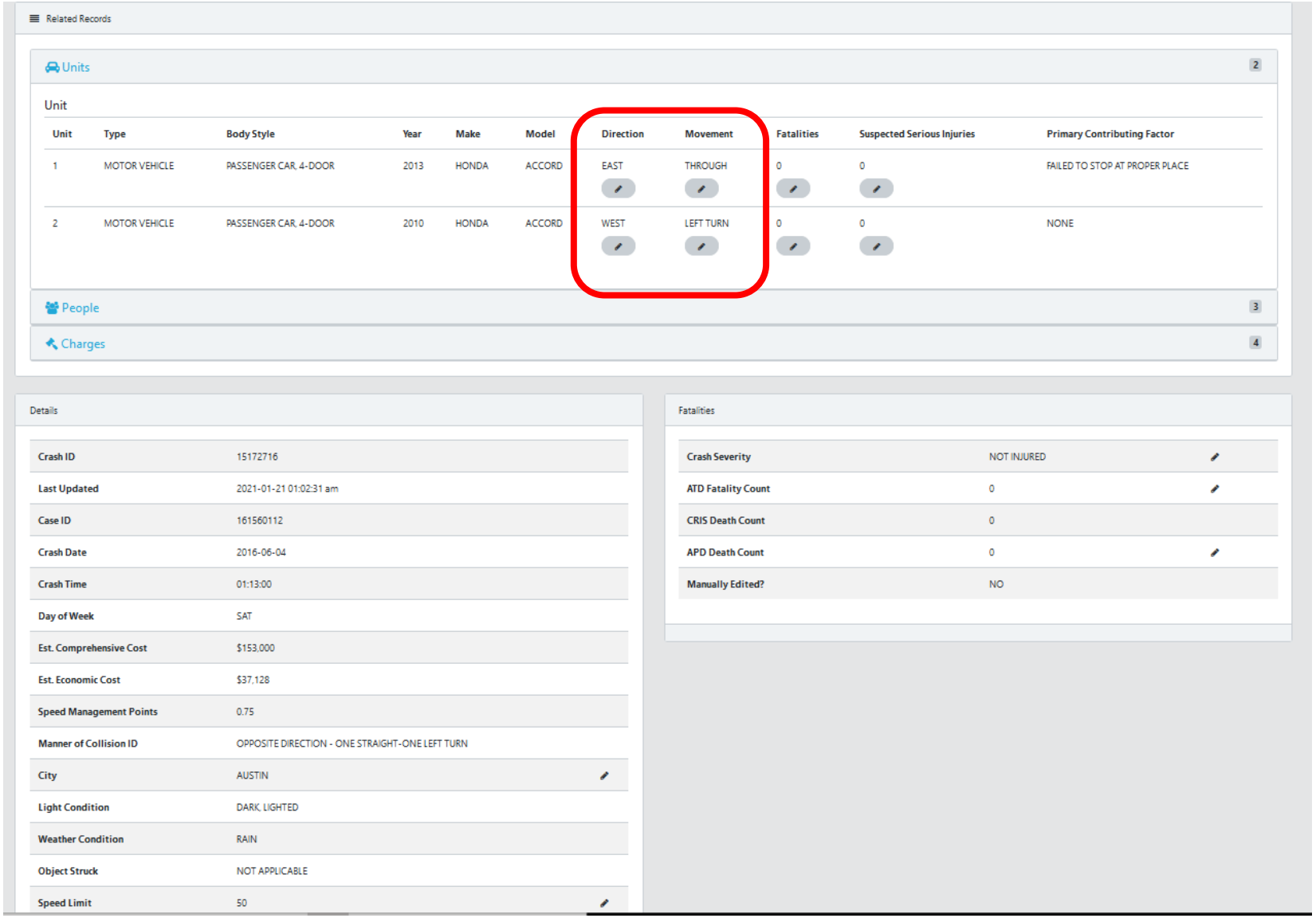
Crash Data Management



Related Records

Units 2

Unit

Unit	Type	Body Style	Year	Make	Model	Direction	Movement	Fatalities	Suspected Serious Injuries	Primary Contributing Factor
1	MOTOR VEHICLE	PASSENGER CAR, 4-DOOR	2013	HONDA	ACCORD	EAST	THROUGH	0	0	FAILED TO STOP AT PROPER PLACE
2	MOTOR VEHICLE	PASSENGER CAR, 4-DOOR	2010	HONDA	ACCORD	WEST	LEFT TURN	0	0	NONE

People 3

Charges 4

Details

Crash ID	15172716
Last Updated	2021-01-21 01:02:31 am
Case ID	161560112
Crash Date	2016-06-04
Crash Time	01:13:00
Day of Week	SAT
Est. Comprehensive Cost	$153,000
Est. Economic Cost	$37,128
Speed Management Points	0.75
Manner of Collision ID	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN
City	AUSTIN
Light Condition	DARK, LIGHTED
Weather Condition	RAIN
Object Struck	NOT APPLICABLE
Speed Limit	50

Fatalities

Crash Severity	NOT INJURED
ATD Fatality Count	0
CRIS Death Count	0
APD Death Count	0
Manually Edited?	NO

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Crash Data Management

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Crash Data Management

METRIC BLVD, W PARMER LN

Aerial Map

Details

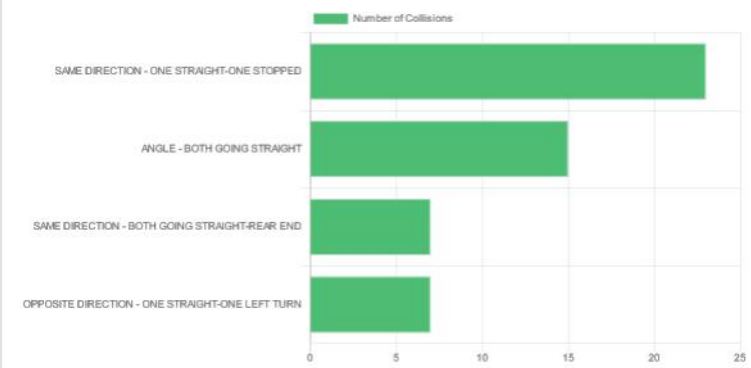
Location ID	8086874579
Description	METRIC BLVD, W PARMER LN
Last Update	2020-03-09 12:00:00 am
Total Crashes (Previous 5 years)	157
Total Estimated Comprehensive Cost (Previous 5 years)	$24,788,000
ASMP Street Level	3, 4

Export Global Data

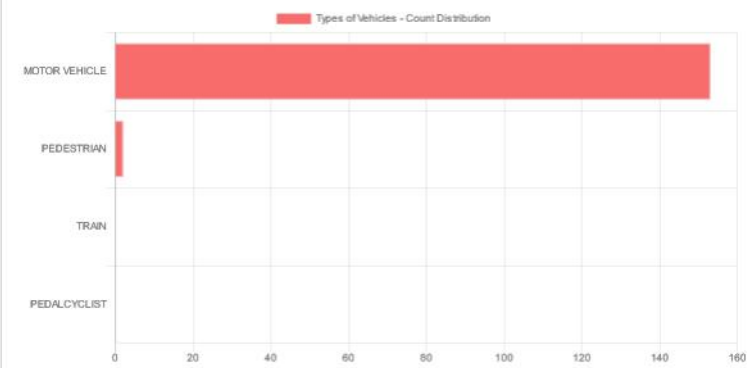
CR3 Crashes

04/26/2015 to 04/26/2021

Manner of Collisions - Most Frequent



Types of Vehicles - Count Distribution



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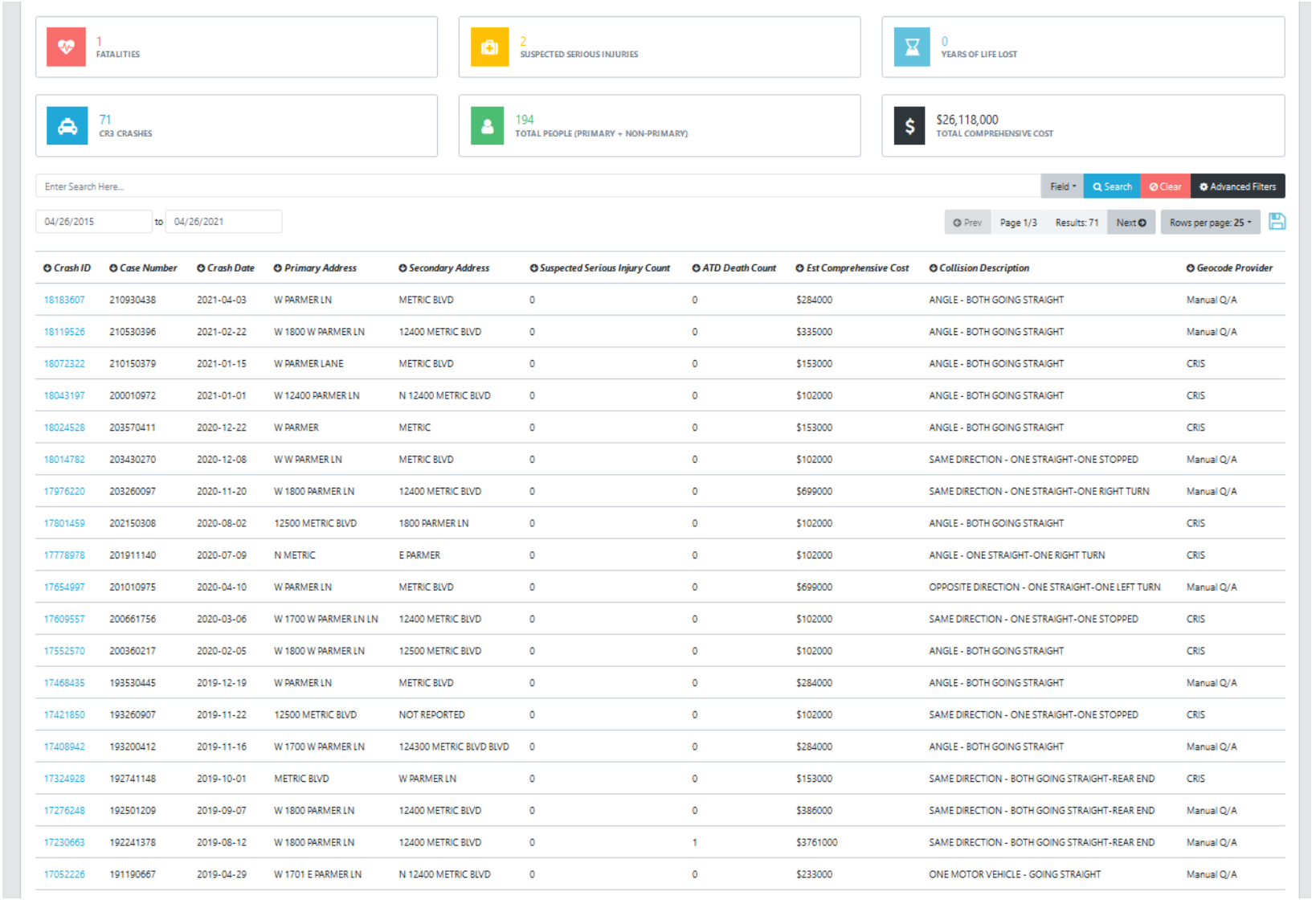
Crash Data Management



1 FATALITIES

2 SUSPECTED SERIOUS INJURIES

0 YEARS OF LIFE LOST

71 CR3 CRASHES

194 TOTAL PEOPLE (PRIMARY + NON-PRIMARY)

$26,118,000 TOTAL COMPREHENSIVE COST

Enter Search Here... | Field | Search | Clear | Advanced Filters

04/26/2015 to 04/26/2021

Prev | Page 1/3 | Results: 71 | Next | Rows per page: 25

Crash ID	Case Number	Crash Date	Primary Address	Secondary Address	Suspected Serious Injury Count	ATD Death Count	Est Comprehensive Cost	Collision Description	Geocode Provider
18183607	210930438	2021-04-03	W PARMER LN	METRIC BLVD	0	0	$284000	ANGLE - BOTH GOING STRAIGHT	Manual Q/A
18119526	210530396	2021-02-22	W 1800 W PARMER LN	12400 METRIC BLVD	0	0	$335000	ANGLE - BOTH GOING STRAIGHT	Manual Q/A
18072322	210150379	2021-01-15	W PARMER LANE	METRIC BLVD	0	0	$153000	ANGLE - BOTH GOING STRAIGHT	CRIS
18043197	200010972	2021-01-01	W 12400 PARMER LN	N 12400 METRIC BLVD	0	0	$102000	ANGLE - BOTH GOING STRAIGHT	CRIS
18024528	203570411	2020-12-22	W PARMER	METRIC	0	0	$153000	ANGLE - BOTH GOING STRAIGHT	CRIS
18014782	203430270	2020-12-08	W W PARMER LN	METRIC BLVD	0	0	$102000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	Manual Q/A
17976220	203260097	2020-11-20	W 1800 PARMER LN	12400 METRIC BLVD	0	0	$699000	SAME DIRECTION - ONE STRAIGHT-ONE RIGHT TURN	Manual Q/A
17801459	202150308	2020-08-02	12500 METRIC BLVD	1800 PARMER LN	0	0	$102000	ANGLE - BOTH GOING STRAIGHT	CRIS
17778978	201911140	2020-07-09	N METRIC	E PARMER	0	0	$102000	ANGLE - ONE STRAIGHT-ONE RIGHT TURN	CRIS
17654997	201010975	2020-04-10	W PARMER LN	METRIC BLVD	0	0	$699000	OPPOSITE DIRECTION - ONE STRAIGHT-ONE LEFT TURN	Manual Q/A
17609557	200661756	2020-03-06	W 1700 W PARMER LN LN	12400 METRIC BLVD	0	0	$102000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	CRIS
17552570	200360217	2020-02-05	W 1800 W PARMER LN	12500 METRIC BLVD	0	0	$102000	ANGLE - BOTH GOING STRAIGHT	CRIS
17468435	193530445	2019-12-19	W PARMER LN	METRIC BLVD	0	0	$284000	ANGLE - BOTH GOING STRAIGHT	Manual Q/A
17421850	193260907	2019-11-22	12500 METRIC BLVD	NOT REPORTED	0	0	$102000	SAME DIRECTION - ONE STRAIGHT-ONE STOPPED	CRIS
17408942	193200412	2019-11-16	W 1700 W PARMER LN	124300 METRIC BLVD BLVD	0	0	$284000	ANGLE - BOTH GOING STRAIGHT	Manual Q/A
17324928	192741148	2019-10-01	METRIC BLVD	W PARMER LN	0	0	$153000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	CRIS
17276248	192501209	2019-09-07	W 1800 PARMER LN	12400 METRIC BLVD	0	0	$386000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	Manual Q/A
17230663	192241378	2019-08-12	W 1800 PARMER LN	12400 METRIC BLVD	0	1	$3761000	SAME DIRECTION - BOTH GOING STRAIGHT-REAR END	Manual Q/A
17052226	191190667	2019-04-29	W 1701 E PARMER LN	N 12400 METRIC BLVD	0	0	$233000	ONE MOTOR VEHICLE - GOING STRAIGHT	Manual Q/A

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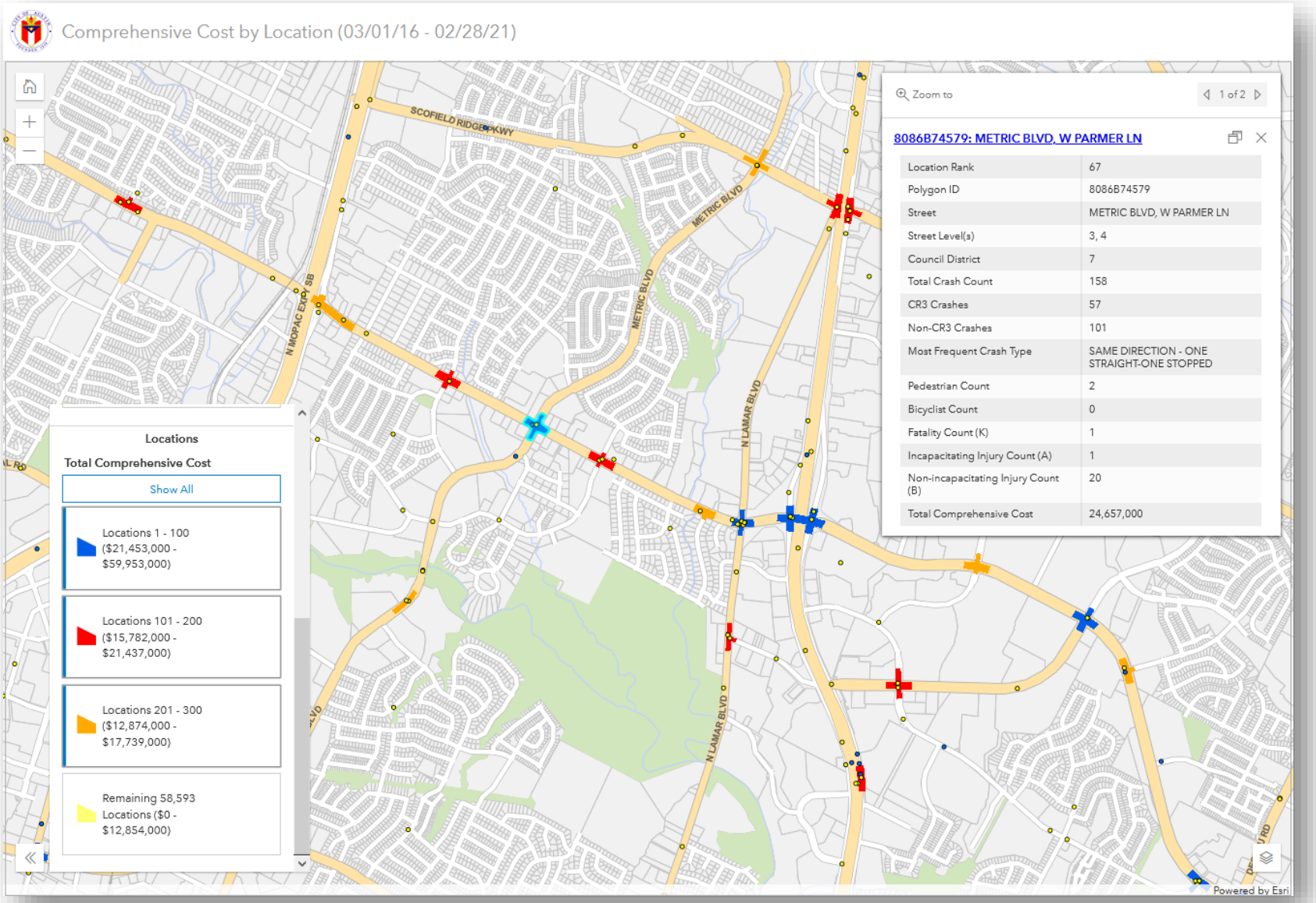
Mapping Tools



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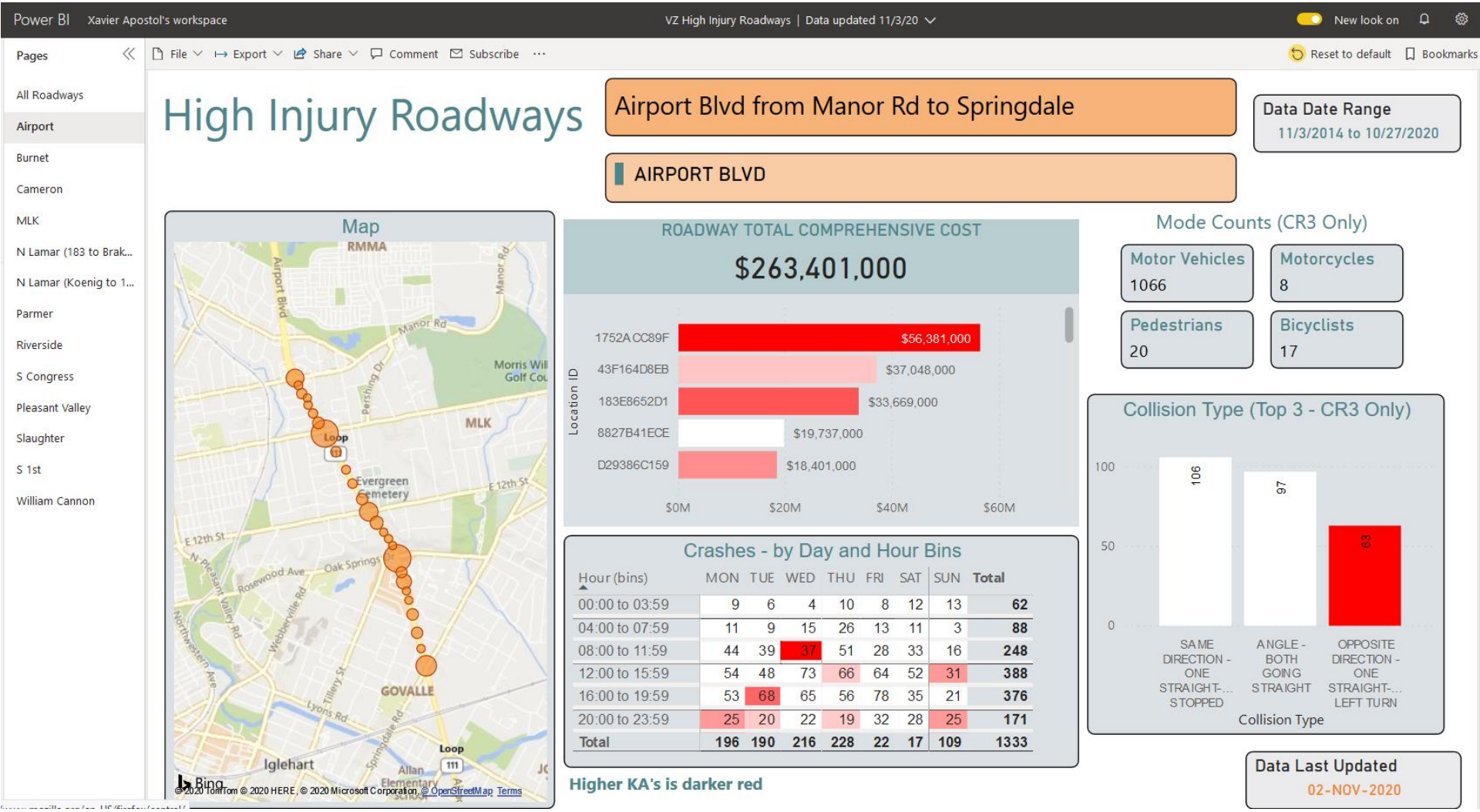
Business Intelligence Tools



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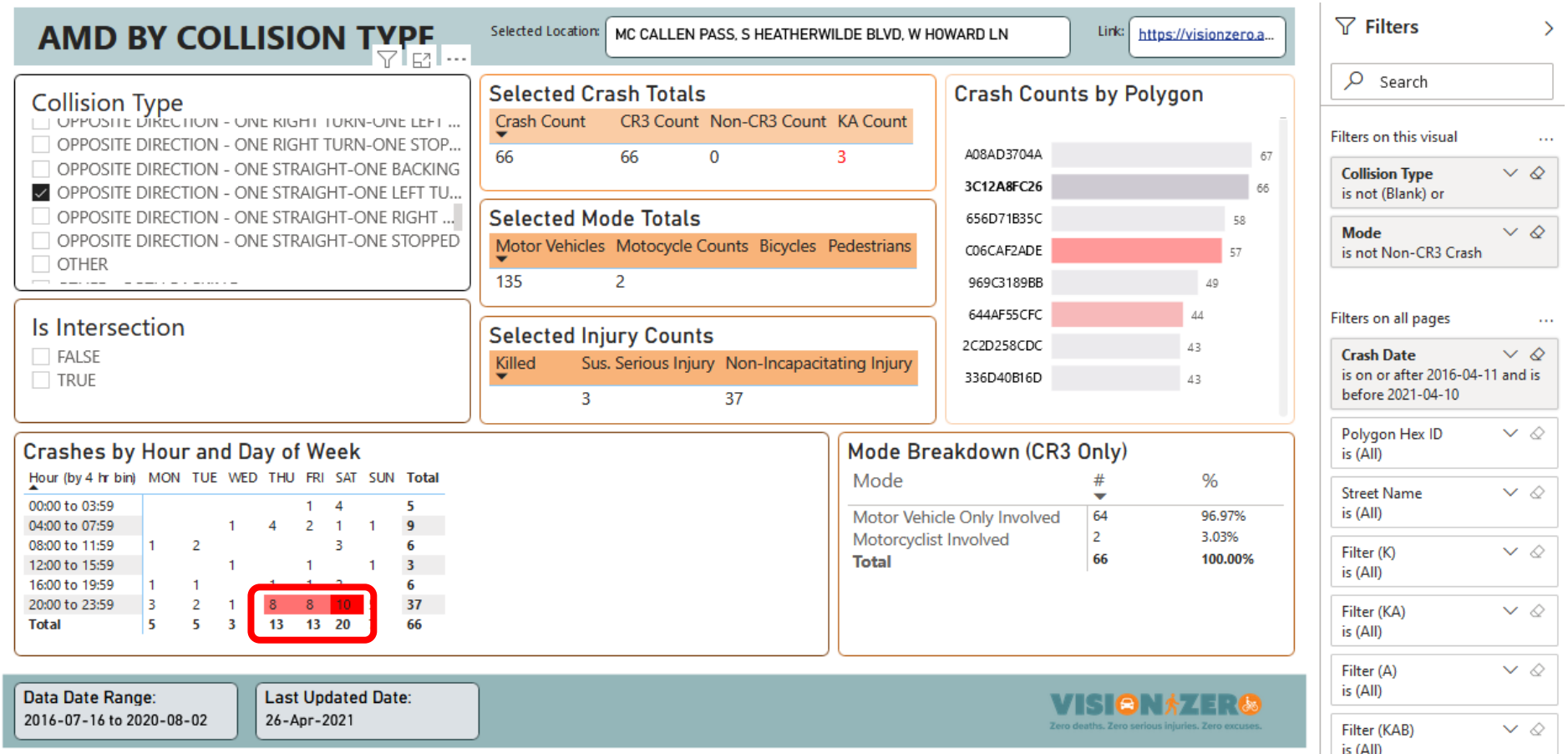
Business Intelligence Tools



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Insights → Action

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Insights → Action

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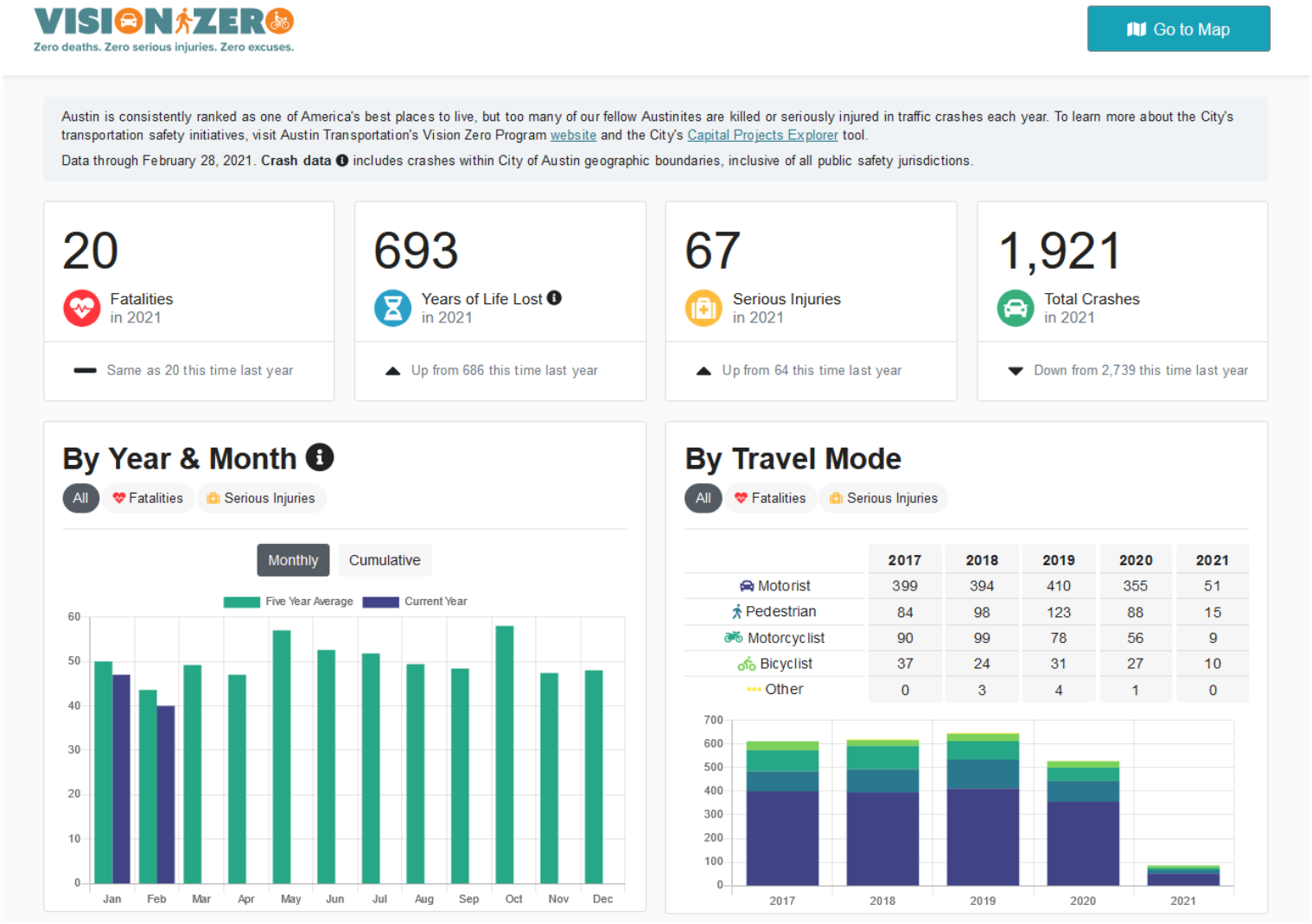
Public-facing Vision Zero Viewer



visionzero.austin.gov/viewer

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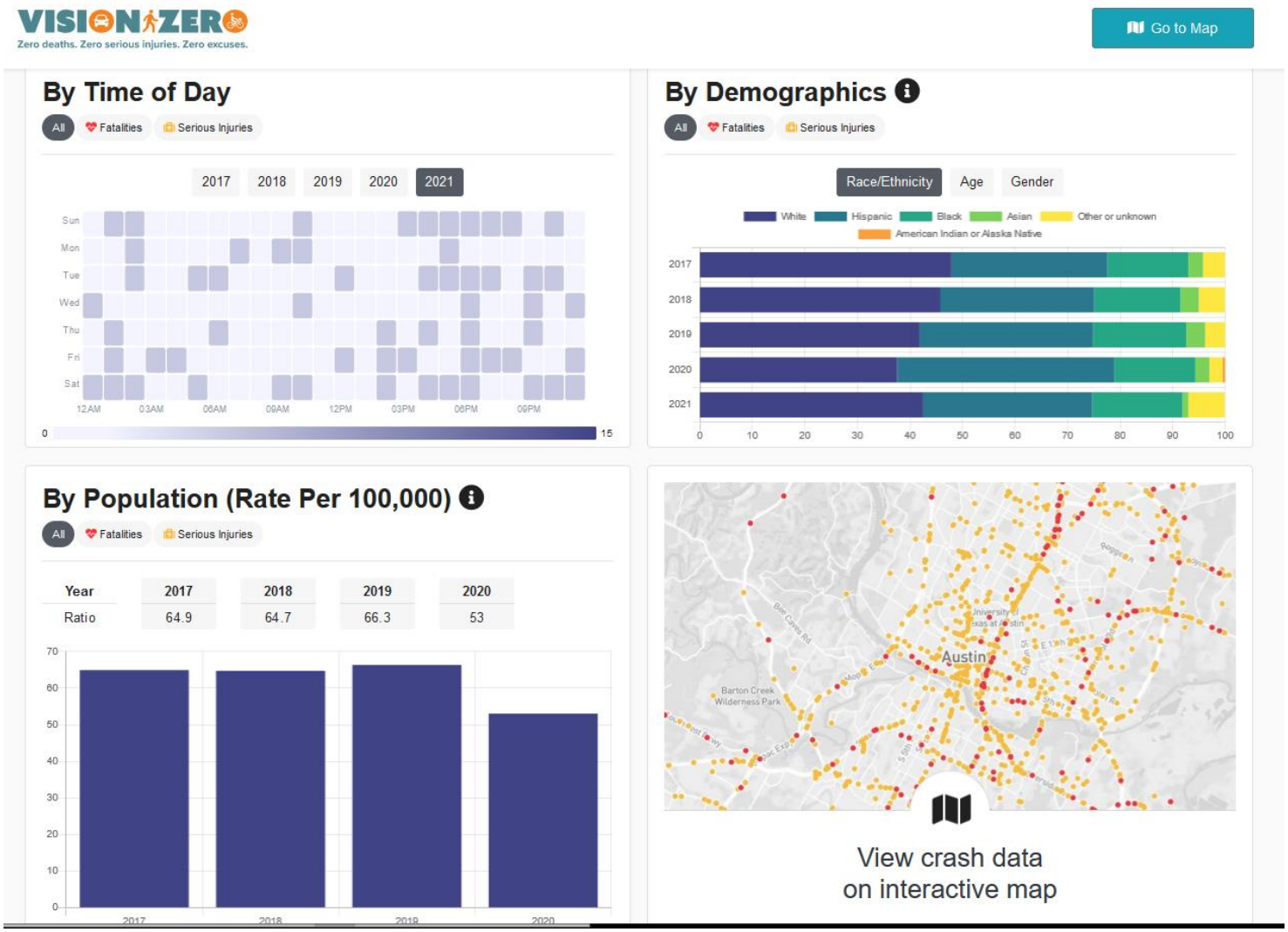
Public-facing Vision Zero Viewer



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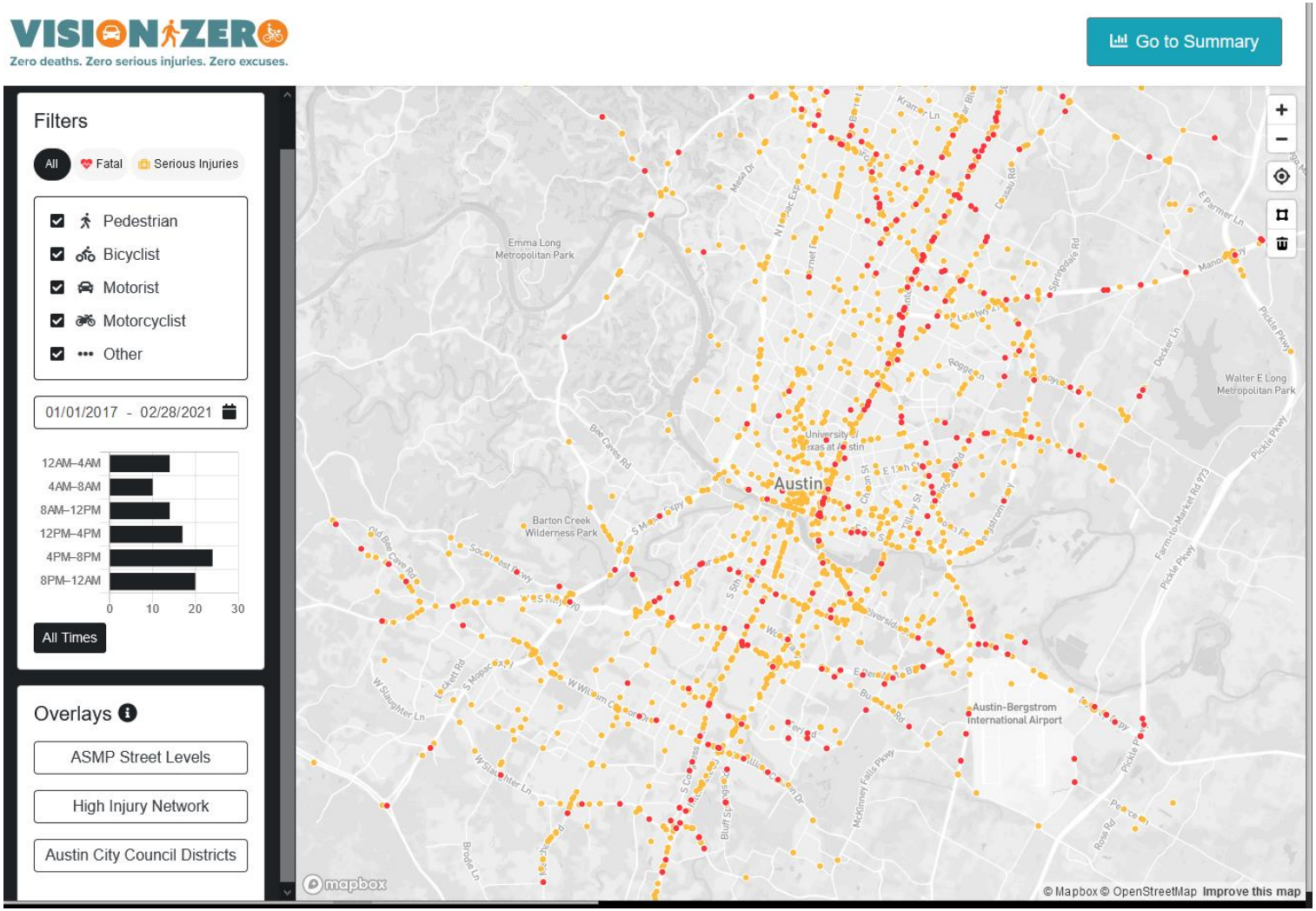

visionzero.austin.gov/viewer

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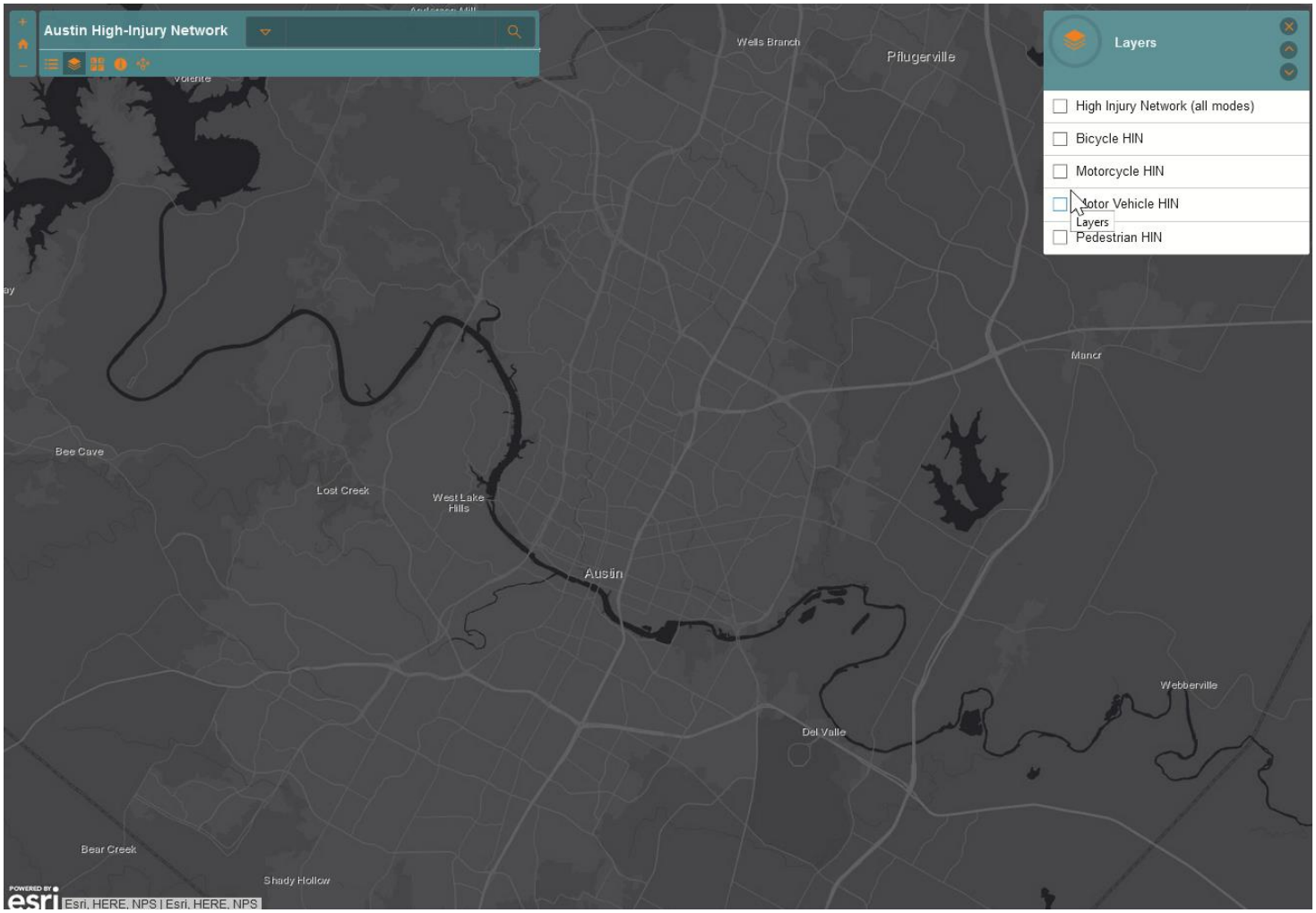
High-Injury Network / High-Injury Roadways



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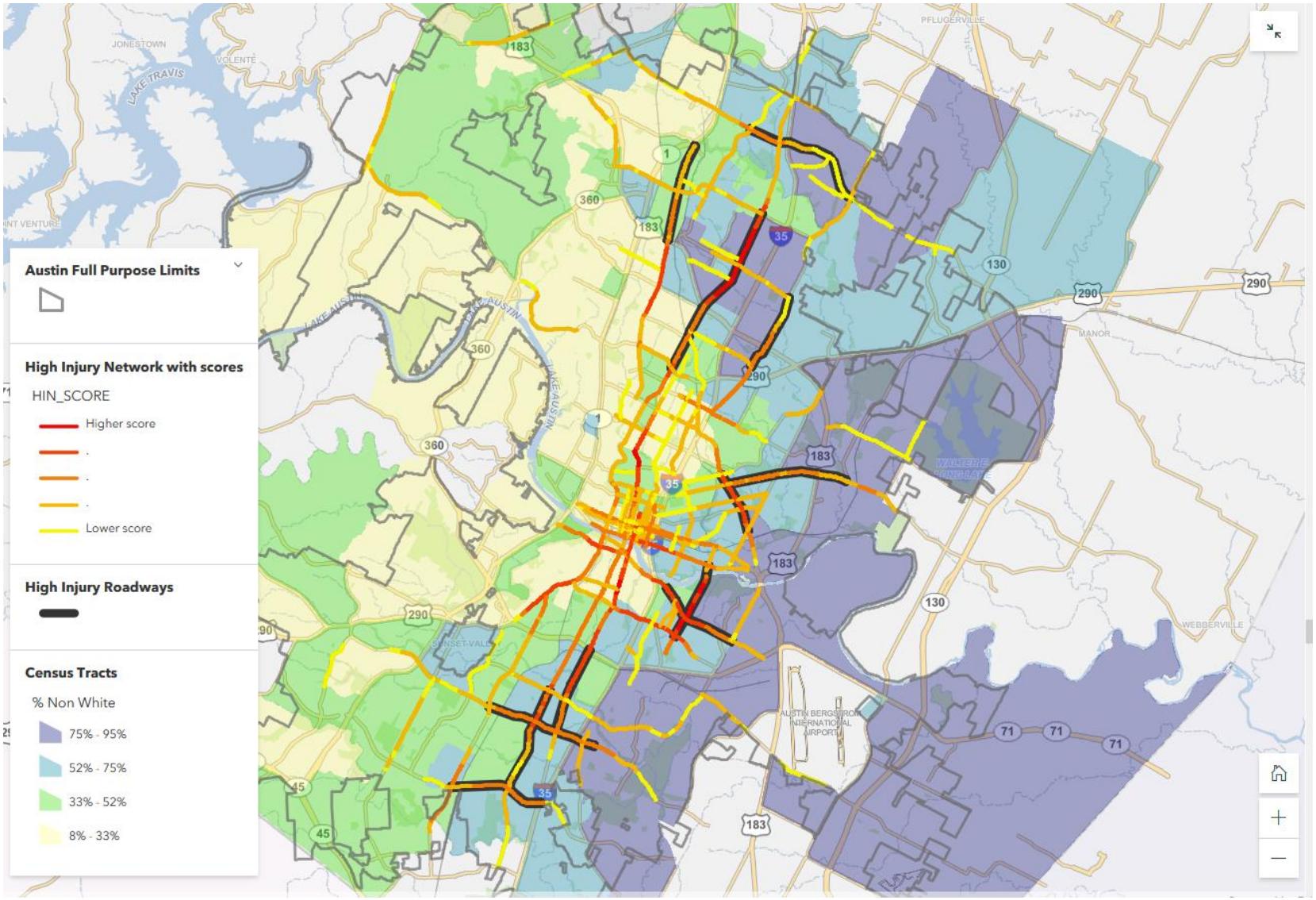
High-Injury Network / High-Injury Roadways



Implementing Vision Zero in Austin

High-Injury Network / High-Injury Roadways

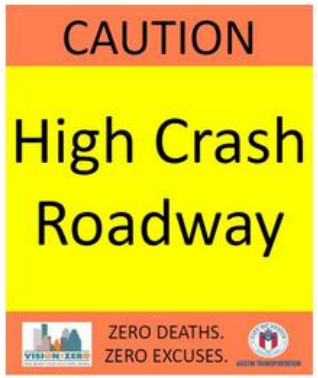
High-Injury Roadways

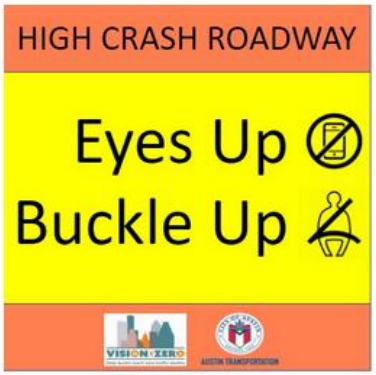
Austin Transportation's Vision Zero program ider
improvements. The Vision Zero team analyzed th
focused engineering design initiatives, improved

Over 350 Austinites were seriously injured or kille
more than half of the top 100 comprehensive cost
negative quality of life and economic impacts of c
continue to build on the ongoing efforts towards
caused by traffic crashes.

- Pleasant Valley Road (Cesar Chavez Street to Oltorf Street)
  - Updated scope of work for upcoming **interim safety improvements**, including PHBs, wider shared use paths, dedicated turn lanes, and new signal infrastructure
  - Backplates installed at multiple locations for better signal visibility
  - Refreshed crosswalk markings and extended protected-only turn signal phases at S. Pleasant Valley and S. Lakeshore Blvd.
  - New Flashing Yellow Arrow at S. Pleasant Valley
  - New Pedestrian Hybrid Beacon at S. Pleasant Va
  - New signal battery backups at multiple location
  - Battery backup systems installed at Pleasant Va
- Cameron Road (E St. Johns Avenue to Rundberg La
  - New Flashing Yellow Arrow at Cameron and St. intervals
  - New Flashing Yellow Arrow at Cameron and Mc
  - New signal battery backups at multiple location
  - Added Leading Pedestrian Interval at Cameron
  - Battery backup system installed at Cameron Rd
- William Cannon Dr. (Menchaca Rd. to Elm Creek Dr
  - New Flashing Yellow Arrow at William Cannon
  - New Flashing Yellow Arrow at William Cannon Dr. and Cooper Ln. with protected timing
  - New Leading Pedestrian Interval at William Cannon and Circle S Rd.
  - New Flashing Yellow Arrow at William Cannon at Century South, with protected timing and a Leading Pedestrian Interval
  - New Flashing Yellow Arrow at William Cannon and Bluff Springs Dr., with protected timing for left turns in all directions

Additional 10% reduction in KAs in 2020 compared to other city streets





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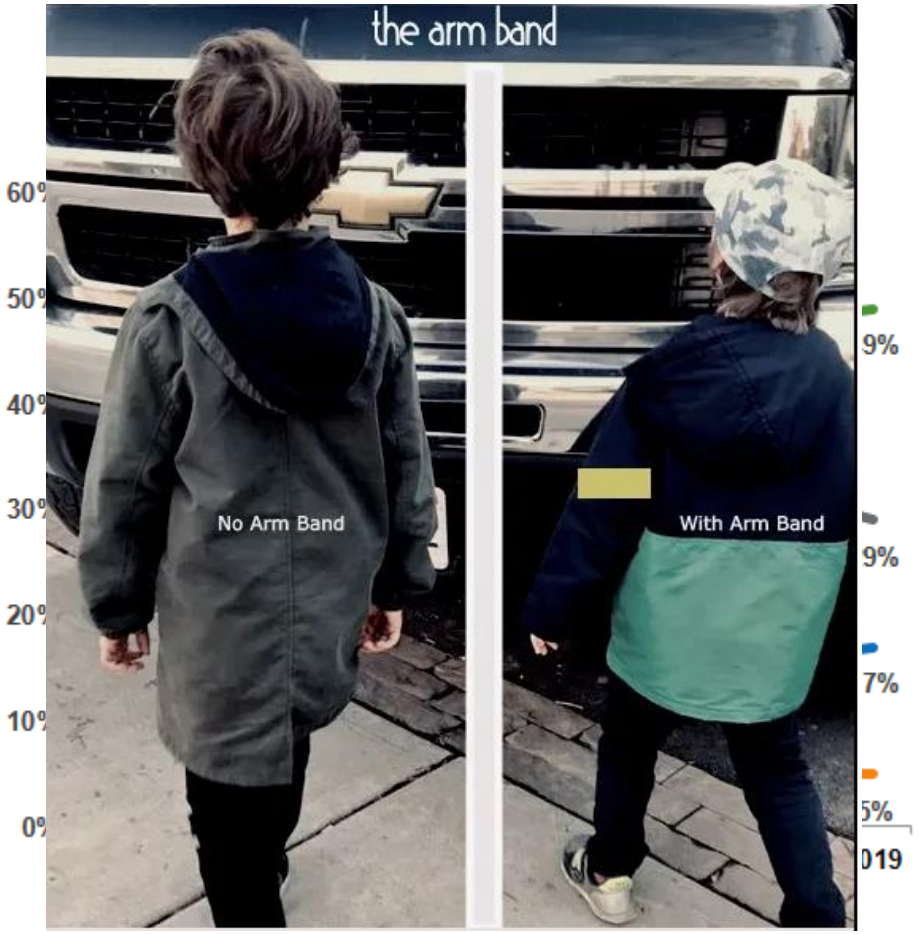
VISION ZERO

Manage for safe speeds

Likelihood of survival or death is based on kinetic energy

$$K = \frac{1}{2}mv^2$$

- Avg. SUV is 5,000 lbs.; 40%+ than avg. car
- Higher “K” transfer, longer braking distance, more harmful points of impact, more blind spots



Implementing Vision Zero in Austin

Manage for safe speeds

Likelihood of survival is based on kinetic energy

$$K = \frac{1}{2}mv^2$$


ABC30 ACTION NEWS

Pedestrian hit and killed by car in north Fresno

KFSN · 3 days ago

Police are investigating a crash that killed a pedestrian in north Fresno.

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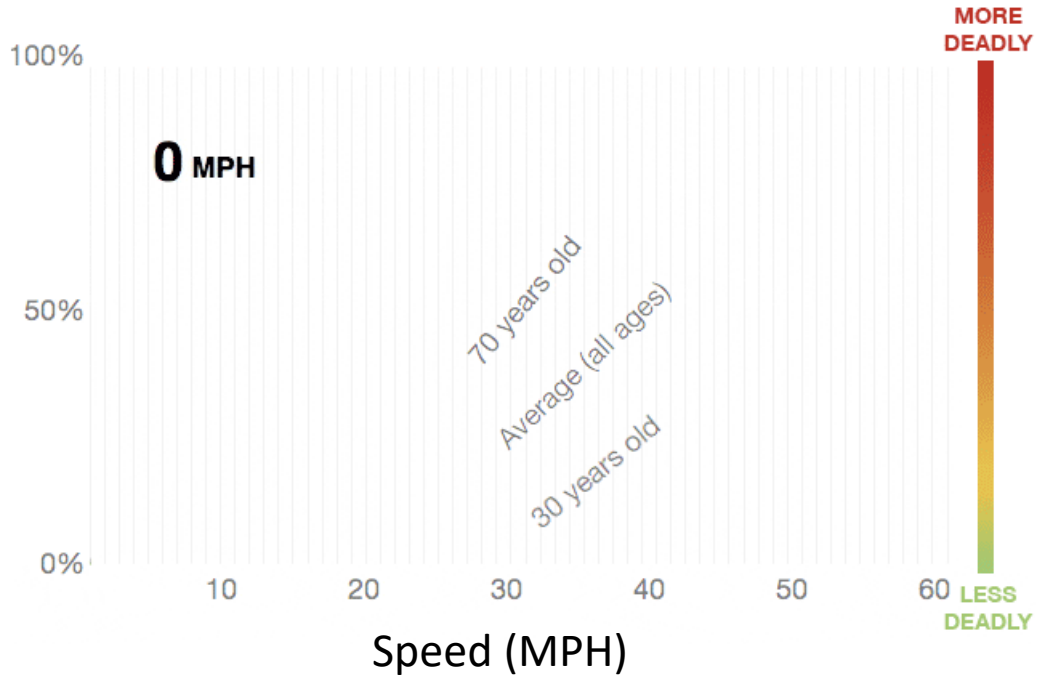
Manage for safe speeds

Speed kills



A person's chance of dying being hit by a driver in a car increases drastically with faster speeds.

Graphic: ProPublica. Data: AAA Foundation for Traffic Safety report.

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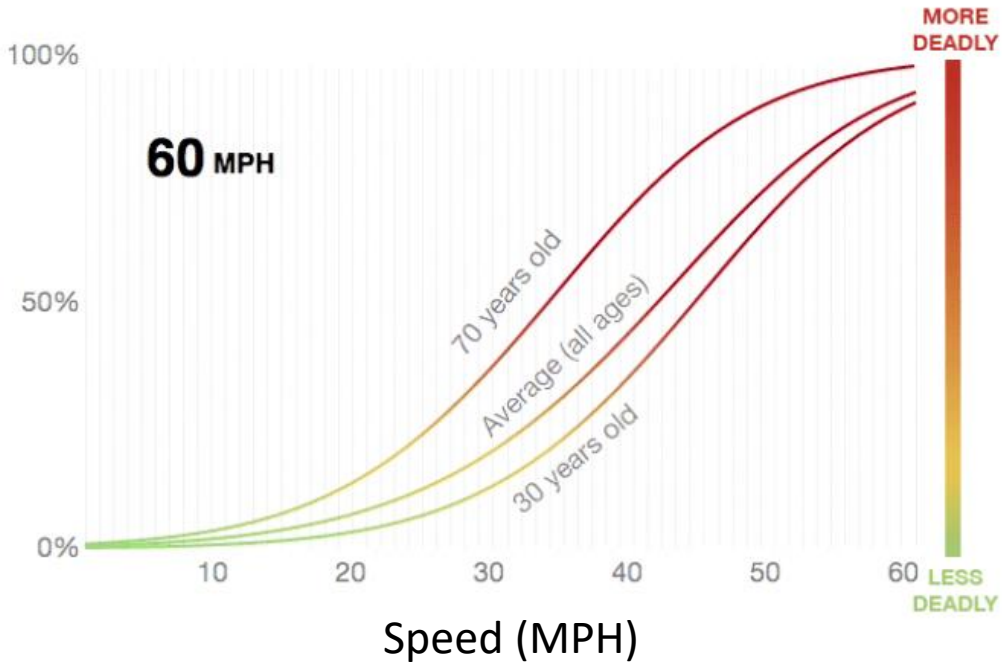
Manage for safe speeds

Speed kills



A person's chance of dying being hit by a driver in a car increases drastically with faster speeds.

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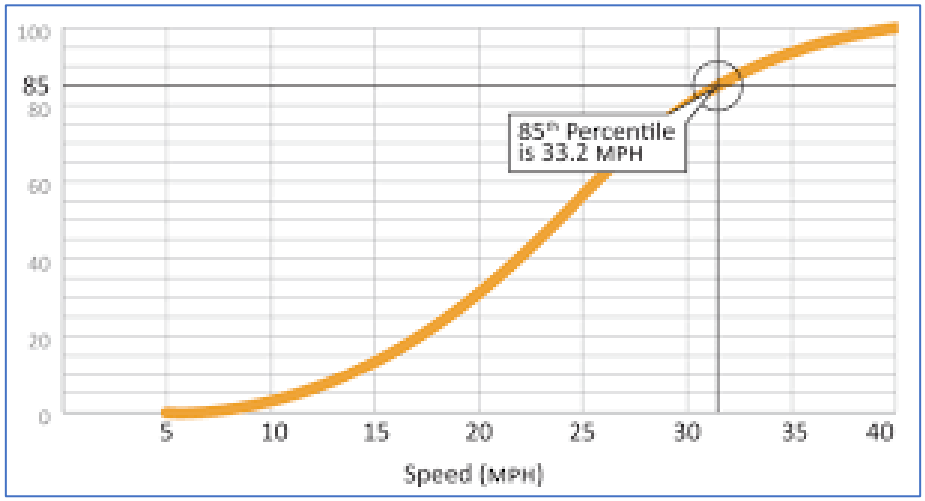
Manage for safe speeds

Historical engineering approach → Expert Systems (USLIMITS2)

85th Percentile Speed as Primary Input



Source: FHWA

15 Different inputs

- 50th percentile speed
- Driveway density
- Traffic controls
- Adjacent land use
- Bike/ped activity
- Crash history
- Others

safety.fhwa.dot.gov/uslimits/

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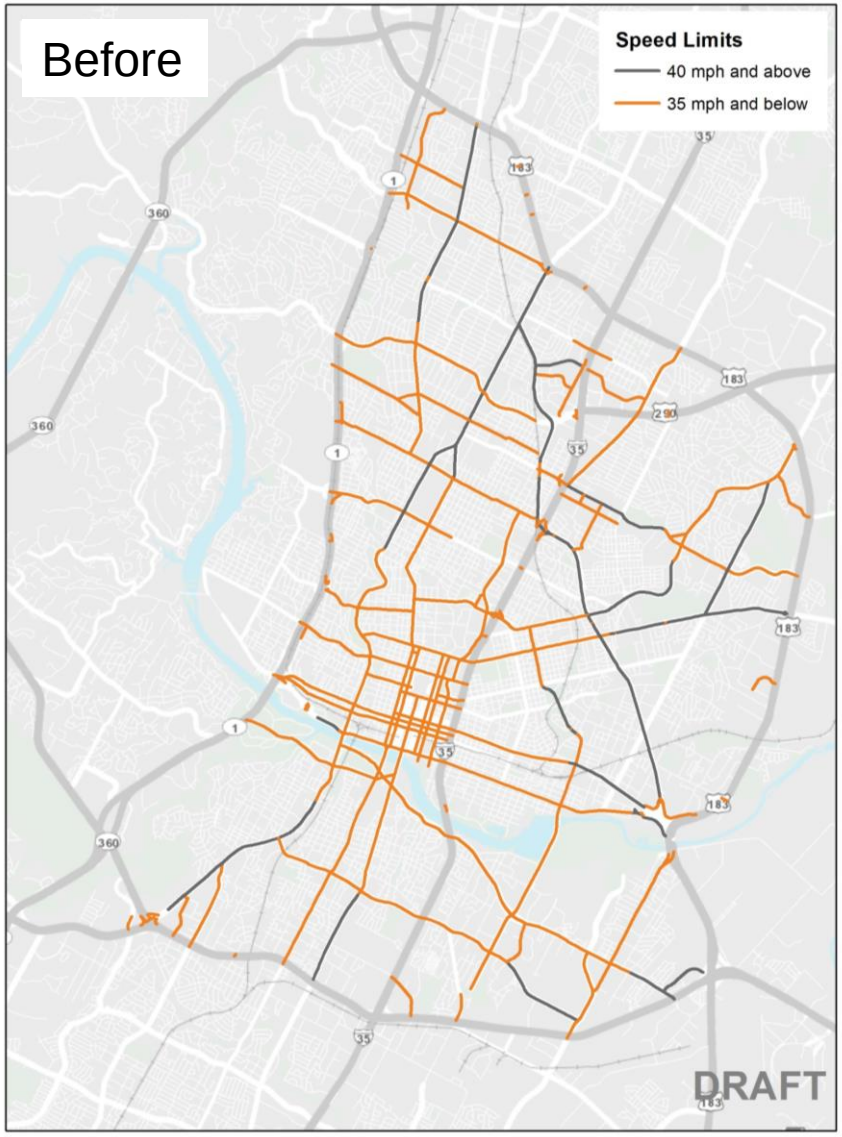
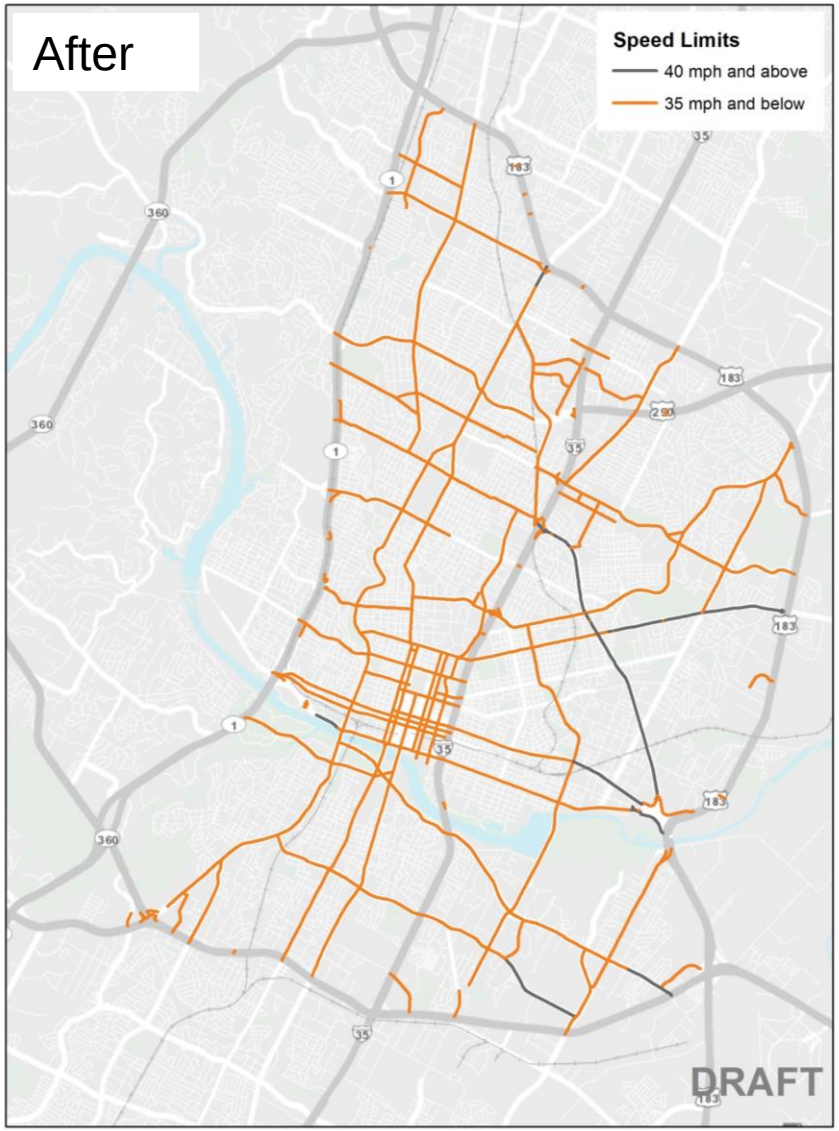
Manage for safe speeds





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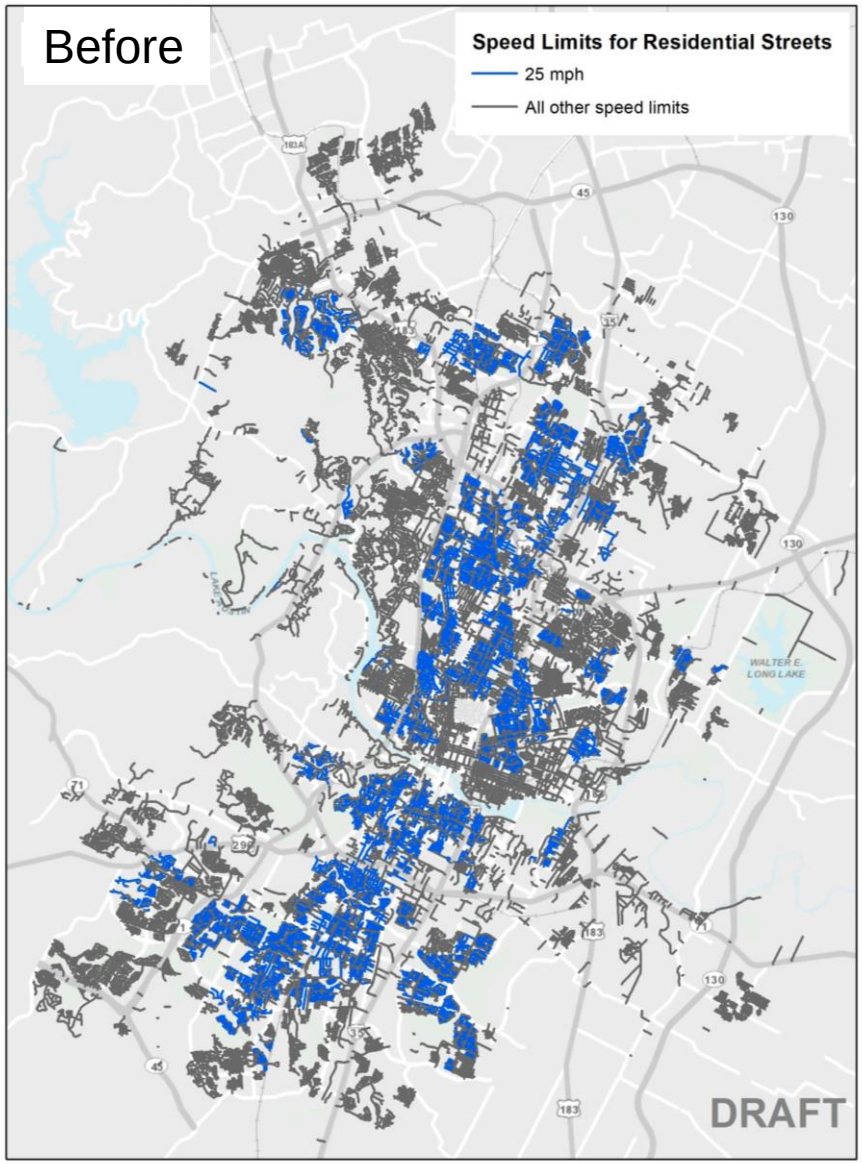
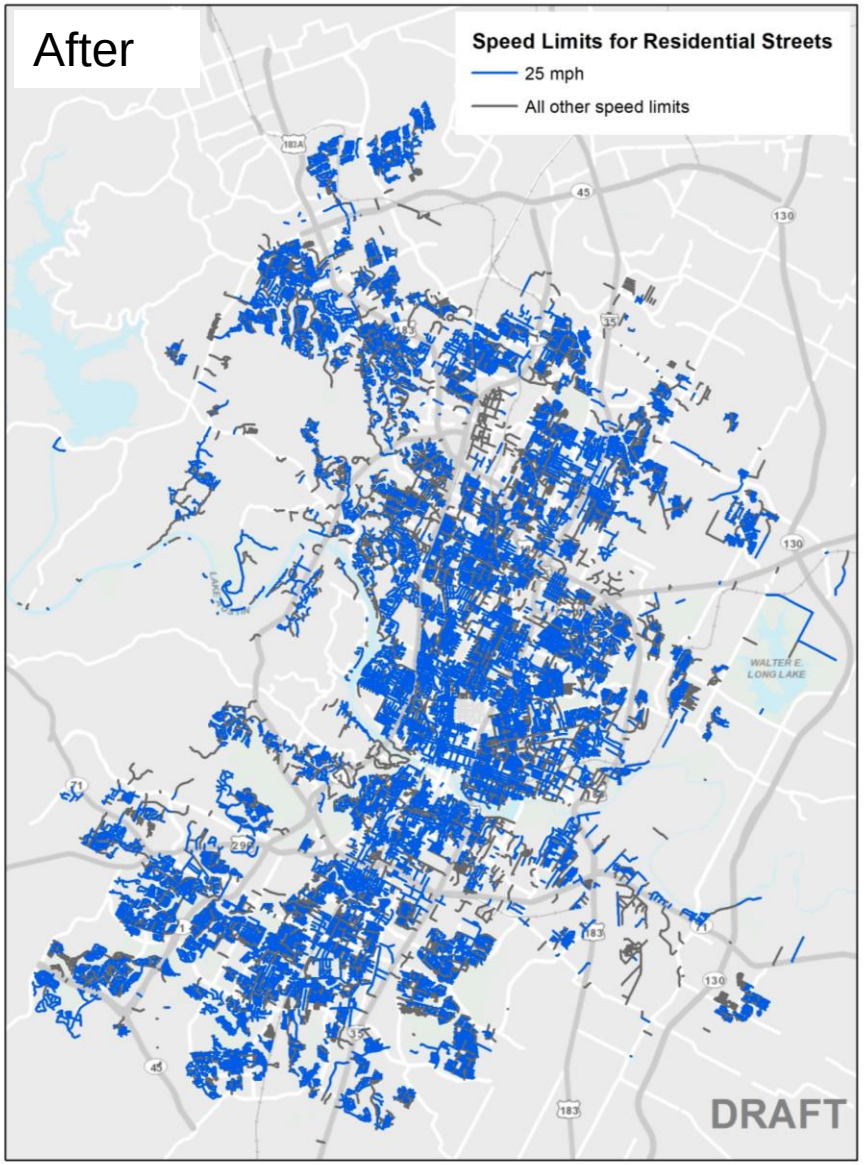
Manage for safe speeds





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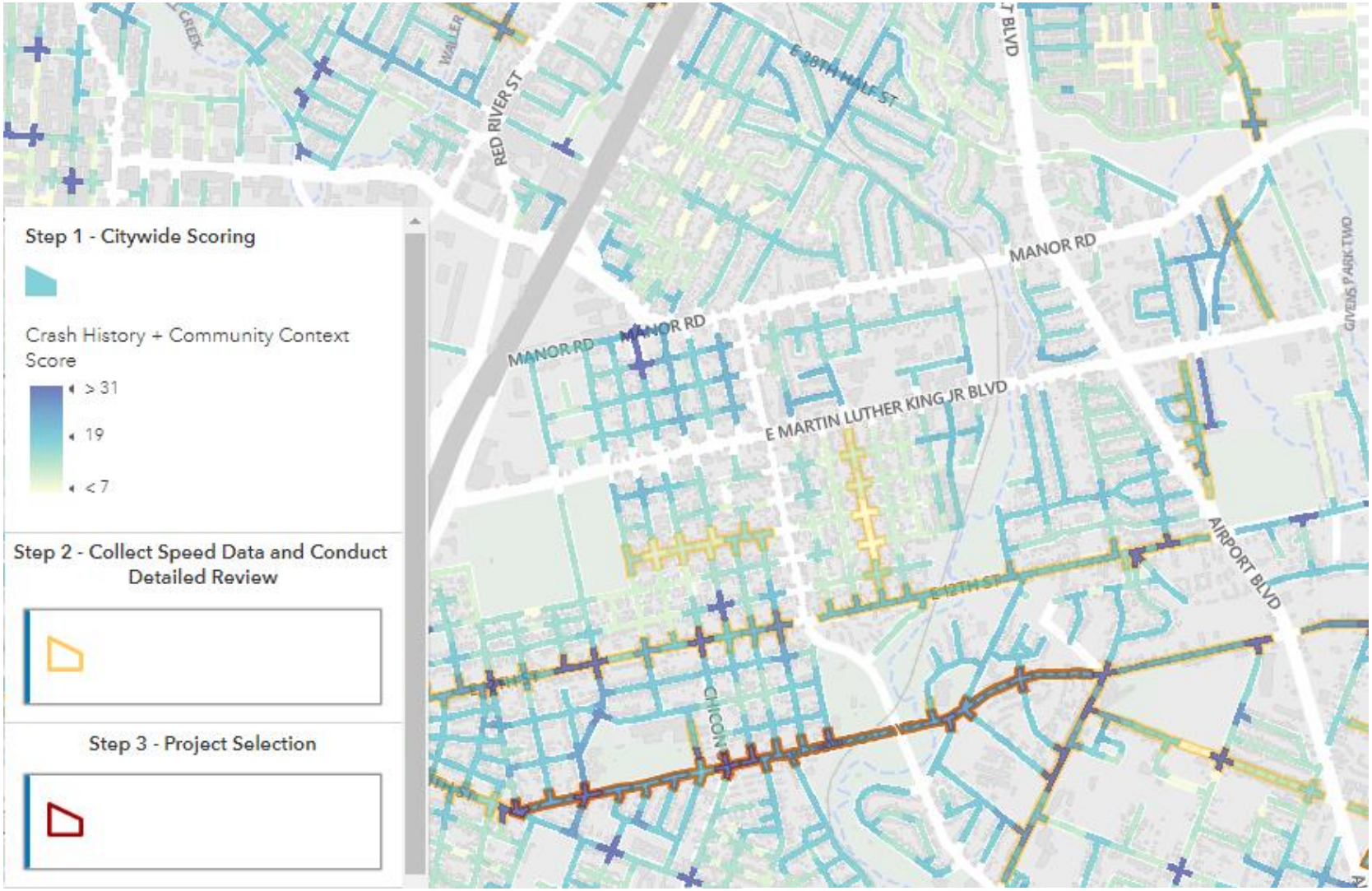
Manage for safe speeds



austintexas.gov/department/speed-management

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Incorporating safe systems principles into design guidance

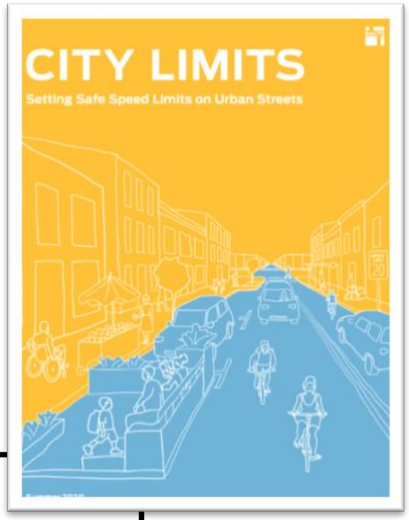

Table 3-1 – Street Level Target Speeds

	Street Context			
Street Level	High conflict density High activity	High conflict density Low activity	Low conflict density High activity	Low conflict density Low activity
Level 0	10 mph	10 mph	10 mph	10 mph
Level 1	20 mph or lower	20 mph	20 mph	20-25 mph
Level 2	20-25 mph	25 mph	25 mph	25-30 mph
Level 3	25-30 mph	30 mph	30 mph	30-35 mph
Level 4	30-35 mph	35 mph	35 mph	35-40 mph

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Incorporating safe systems principles into design guidance

Table 4-1 – Pedestrian Crossing Spacing

Street Level	Context	Maximum Desirable Distance Between Marked Crossings
1	All	600 ft
2	On Transit Priority Network	600 ft
	All other streets	1,200 ft
3	On Transit Priority Network	600 ft
	All other streets	1,200 ft
4	All	1,200 ft
5	All	Every major intersection
All	All	Within 100 ft. of all transit stops

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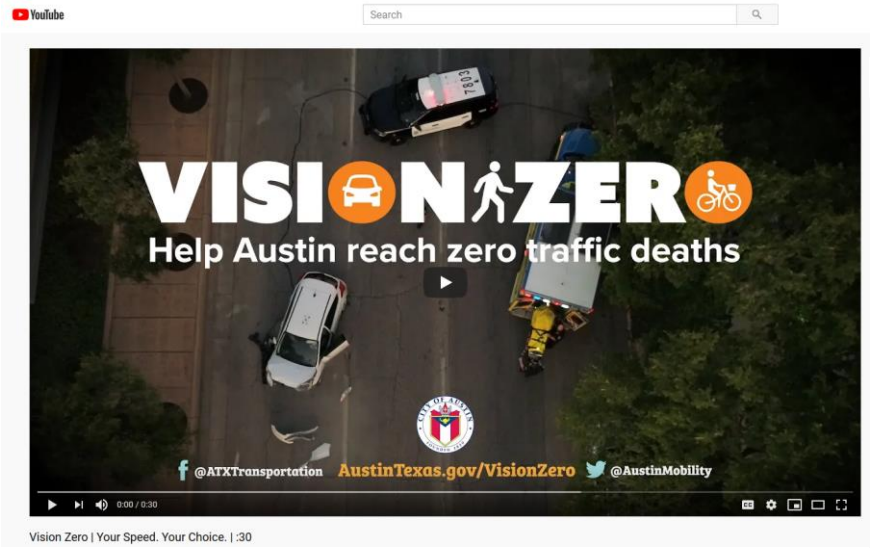
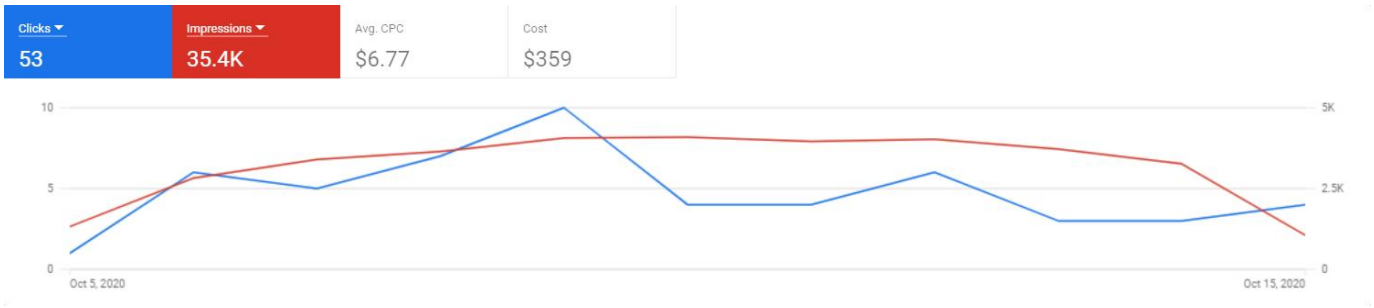
Communications/Engagement



Vision Zero | Your Speed. Your Choice. | :30

Visión Zero | Tu distracción. Tu decisión. | :30



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Vision Zero Leadership Council

The University of Texas at Austin
Police Department

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Vision Zero Alliance

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Austin Vision Zero

https://austintexas.gov/department/vision-zero

Vision Zero Viewer

https://visionzero.austin.gov/viewer/

Speed Management

http://austintexas.gov/speedmanagement