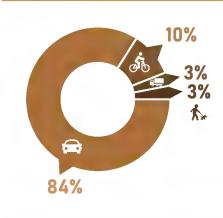
### INTRODUCTION

The City of McGregor is located sixteen miles southwest of Waco on US-84 in western McLennan County. The city has an estimated population of 5,338 according to the 2020 census. This chapter provides information on the City of McGregor's collision statistics from 2014 to 2023. A total of 32 collisions occurred on McGregor city streets in the last 10 years, including one fatal and three serious injuries collisions TxDOT roadways within McGregor city limits had 158 collisions during the same period, with four fatal injuries and 25 serious injuries. The majority of injury collisions in both City and TxDOT rights-of-way resulted in minor injuries, with 50 percent in City right-of-way and approximately 42 percent in TxDOT right-of-way.

<b>COLLISIONS 2014 TO 2023</b>	C	ITY	Tx	DOT
<b>Total Collisions</b>	32	100 %	158	100 %
Fatal Injury	1	3.13 %	4	2.53 %
Serious Injury	3	9.38 %	25	15.82 %
Minor Injury	16	50.00 %	66	41.77 %
Possible Injury	12	37.50 %	63	39.87 %
Total Persons Involved	32	100 %	229	100 %
Fatal Injury	1	3.13 %	4	1.75 %
Serious Injury	3	9.38 %	27	11.79 %
Minor Injury	16	50.00 %	96	41.92 %
Possible Injury	12	37.50 %	102	44.54 %

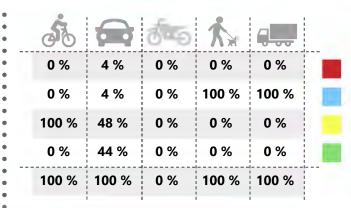


### **COLLISIONS BY MODE - CITY**

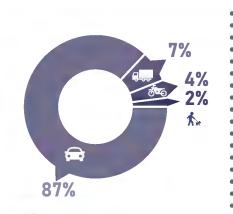


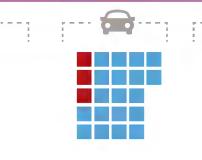


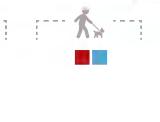




### **COLLISIONS BY MODE - TXDOT**









90		00	TH		
 0 %	2 %	0 %	33 %	0 %	
0 %	14 %	57 %	33 %	9 %	
0 %	43 %	29 %	0 %	45 %	
0 %	41 %	14 %	33 %	45 %	
 0 %	100 %	100 %	100 %	100 %	

Fatal Injury
Serious Injury
Minor Injury
Possible Injury

Fatal Injury

Serious Injury

Minor Injury

Possible Injury

Note: Each box represents one fatal or severe injury collision.



2024 WACO MPO SAFETY ACTION PLAN

Motor Vehicle in Transport

**McLENNAN COUNTY** 

1 %

85 %

4 %

3 %

7 %

72 %

17 %

4 %

42 %

28 %

24 %

5 %

23 %

22 %

12 %

8 %

6 %

6 %

59 %

41 %

70 %

16 %

11 %

The following summary provides information on the number of collisions, persons injured, and the proportion of persons involved in collisions based on mode of transportation, age group, and gender. It also draws comparisons between collisions on CITY OF McGREGOR VS. McLENNAN COUNTY COLLISIONS - RELATIVE SHARES McGregors's city streets, TxDOT facilities and McLennan County across various categories.

On the city streets of McGregor, there were a total of 32 collisions, resulting in 32 persons injured in comparison. TyDOT reported a total of 158 collisions resulting in 229 persons injured. injured

This se includir automo were k automo is provi

The pie speed limits. The charts indicate that roads with a 50 mph speed limit accounted for the highest proportion of KSI collisions out of the speed limits examined.

> CITY: TxDOT 32 : 158

TOTAL COLLISIONS: TOTAL COLLISIONS

32 : 229

TOTAL PERSONS INJURED : TOTAL PERSONS INJURED

### **PERSONS INVOLVED**

	CITY			TxDOT				
		MODE						
Bicycle	0 %	0 %	9 %	0 %	0 %	0 %	0 %	0 %
Car	3 %	3 %	41 %	38 %	1 %	10 %	41 %	43 %
Motorcycle	0 %	0 %	0 %	0 %	0 %	2 %	1 %	0 %
Pedestrian	0 %	3 %	0 %	0 %	0 %	0 %	0 %	0 %
Truck	0 %	3 %	0 %	0 %	0 %	0 %	0 %	1 %
			AGE					
Below 15	0 %	0 %	9 %	3 %	0 %	0 %	3 %	6 %
15 - 65	3 %	9 %	41 %	28 %	1 %	11 %	34 %	33 %
Above 65	0 %	0 %	0 %	6 %	0 %	1 %	5 %	5 %
			GENDER	R				
Male	3 %	6 %	31 %	6 %	1 %	6 %	24 %	21 %
Female	0 %	3 %	19 %	31 %	0 %	6 %	18 %	24 %

### **SPEED LIMIT**















**TxDOT** 

**MODE** 

FIRST HARMFUL EVENT

**MANNER OF COLLISION** 

**LOCATION** 

**LIGHTING** 

Motor Vehicle in Transport

Automobile Right-of-way

Other Unforeseen Reasons

0 %

87 %

4 %

2 %

7 %

75 %

15 %

3 %

38 %

32 %

25 %

4 %

37 %

29 %

7 %

6 %

4 %

4 %

51 %

49 %

66 %

8 %

25 %

Bicycle

Motorcycle

Pedestrian

**Fixed Object** 

Overturned

Broadside

Hit Object

Rear End

Sideswipe

**Unsafe Speed** 

Automobile Right-of-way

Traffic Signals and Signs

Other Improper Driving

Other Unforeseen Reasons

Distracted Driving

Intersection

Roadway

Daylight

Dark, Lighted

Dark, Not Lighted

Truck

Car





Fatal Injury Serious Injury Minor Injury Possible Injury



I. In comparison, TxDOT reported a total of 158 collisions resulting in 229 persons within McGregor city limits.
ection also identifies several major collision trends on McGregor city streets, ng hit object collisions, collisions involving unsafe speeds, right-of-way violations by tobiles, and nighttime collisions. On TxDOT roadways, the prominent trends broadside collisions, unsafe speed violations, right-of-way violations by obiles and nighttime collisions. A detailed summary analyzing these collision trends ided in the collision profile section of this chapter.
ie charts below compare the severity of collisions on roadways with different

,	
S	Bicycle
	Car
,	Motorcycle
/	Pedestrian
S / S	Truck
•	Motor Vehicle in Transport
	Fixed Object
t e	Overturned
	Hit Object

Broadside

Automobile Right-of-way

**Driver Condition** 

Intersection

**CITY** 

Rear End	19 %	Hit Object
Head-On	3 %	Sideswipe
		<b>VIOLATION CATEGORY</b>
Unsafe Speed	28 %	Unsafe Speed

9 %

84 %

0 %

3 %

3 %

47 %

19 %

9 %

53 %

25 %

28 %

9 %

59 %

Bicycle

Motorcycle

Pedestrian

Fixed Object

Overturned

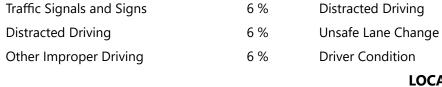
Broadside

Rear End

Intersection

Truck

Car







6.4-2

### **BICYCLE & PEDESTRIAN COLLISION BY SEVERITY**

The map shows the location of injury collisions involving bicyclists and pedestrians. In total there were seven two serious injury collisions.

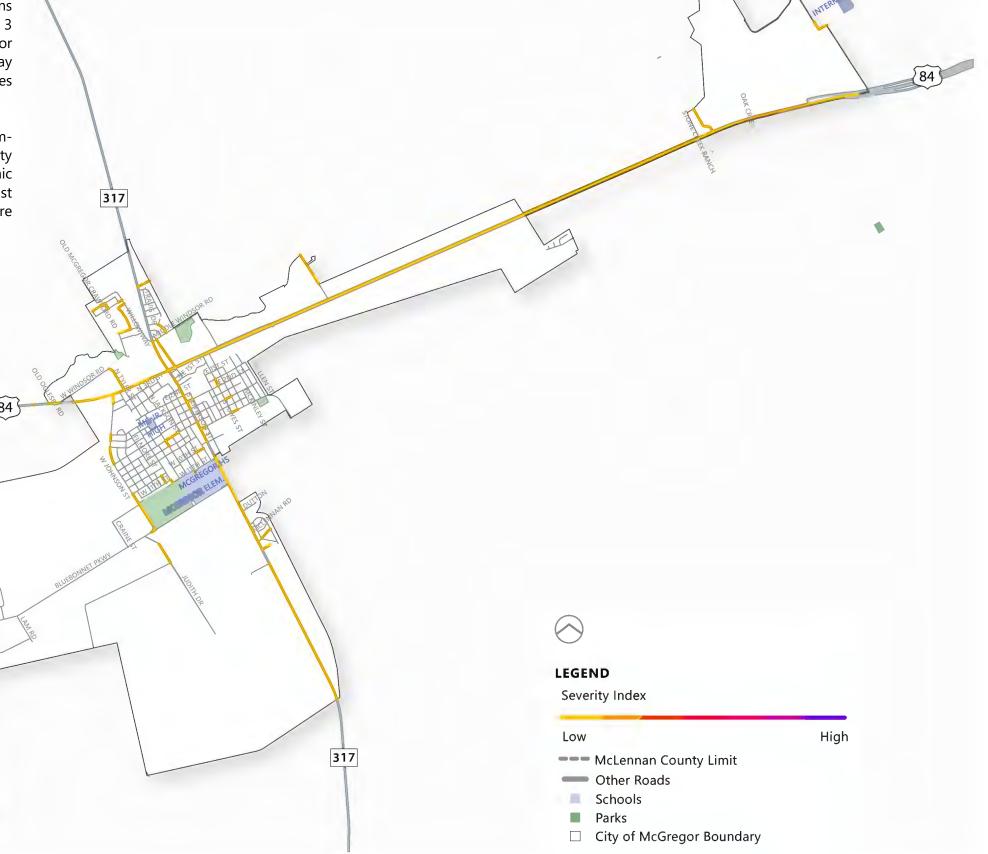




### **SEVERITY INDEX**

The Collision Severity Index methodology is used to identify the locations within a jurisdiction that are experiencing the most severe crashes. This approach assigns weighted point values based on the injury outcomes of individual collisions - 3 points for each fatal or severe injury, 2 points for minor injuries, and 1 point for possible injuries. By summing these scores for all crashes along defined roadway segments between intersections, locations with a history of the most severe crashes receive the highest overall severity index.

This data-driven analysis allows the project team to prioritize infrastructure improvements and safety countermeasures in high-risk areas. Visualizing the severity index through a color-coded collision heat map further highlights the geographic concentrations of injury crashes, guiding decision-makers to target the most vulnerable locations for mitigation. Locations with the highest severity scores are selected for inclusion in the High Risk Network, shown on this map.





### ROADWAYS & INTERSECTIONS

This section lists high risk roadway segments and intersections within the City of McGregor. The accompanying graph depicts the name and limits of each roadway along with the number of collisions categorized by severity at that location. A severity index methodology was utilized to identify these high risk spots. This methodology assigns 3 points for each fatal or severe injury collision, 2 points for each minor injury collision, and 1 point for each possible injury collision.

# LEGEND MC Roadways - City Roadways - TxDOT High Injury Network - City & TxDOT McLennan County Limit Other Roads Schools Parks City of McGregor Boundary

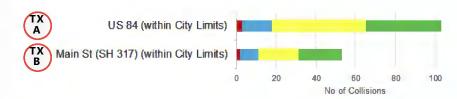
317

### **ROADWAYS**

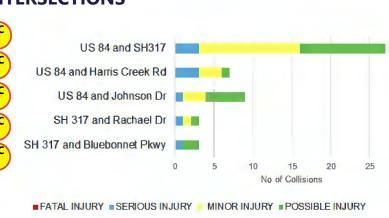


2024 WACO MPO SAFETY ACTION PLAN

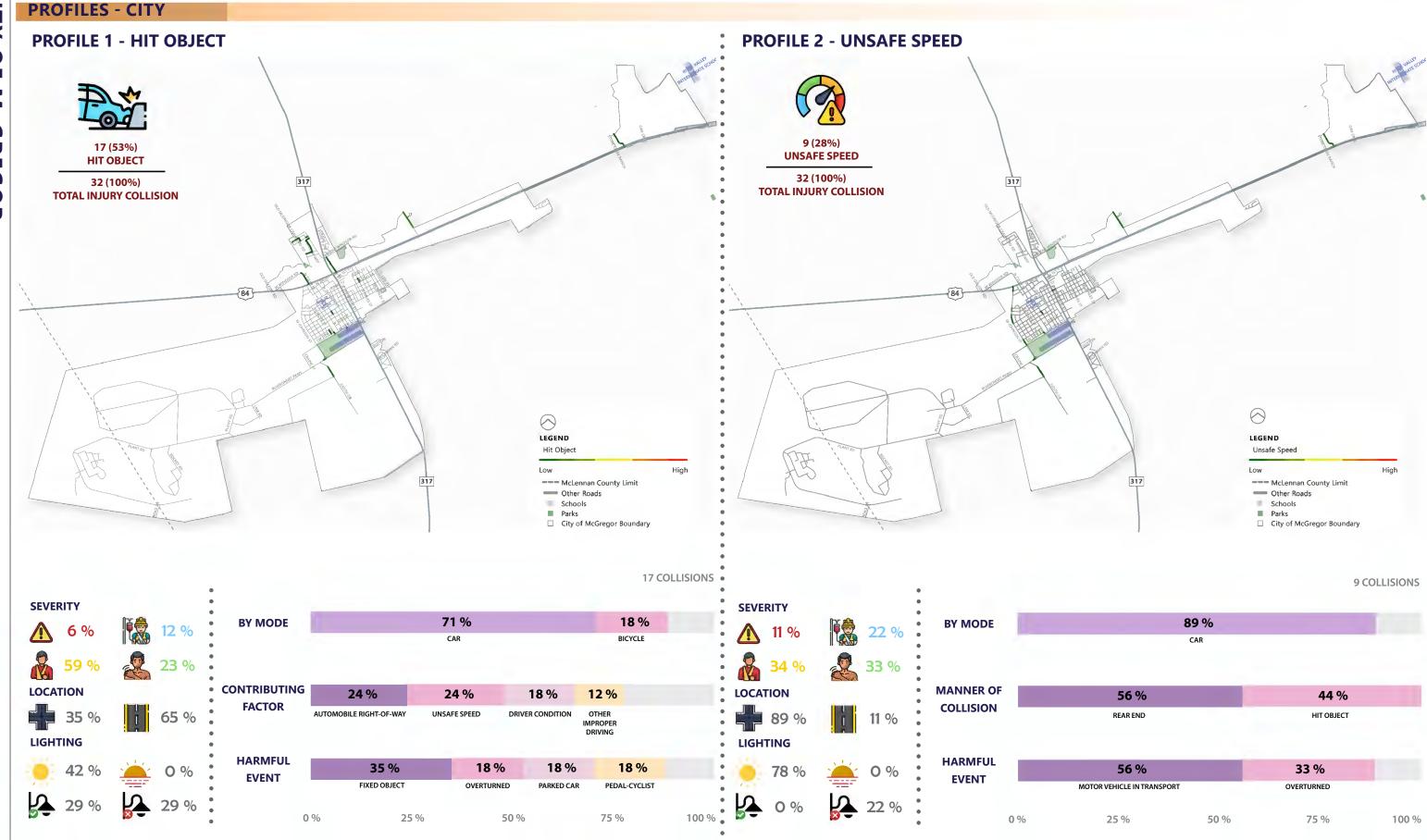
### **TxDOT ROADWAYS**



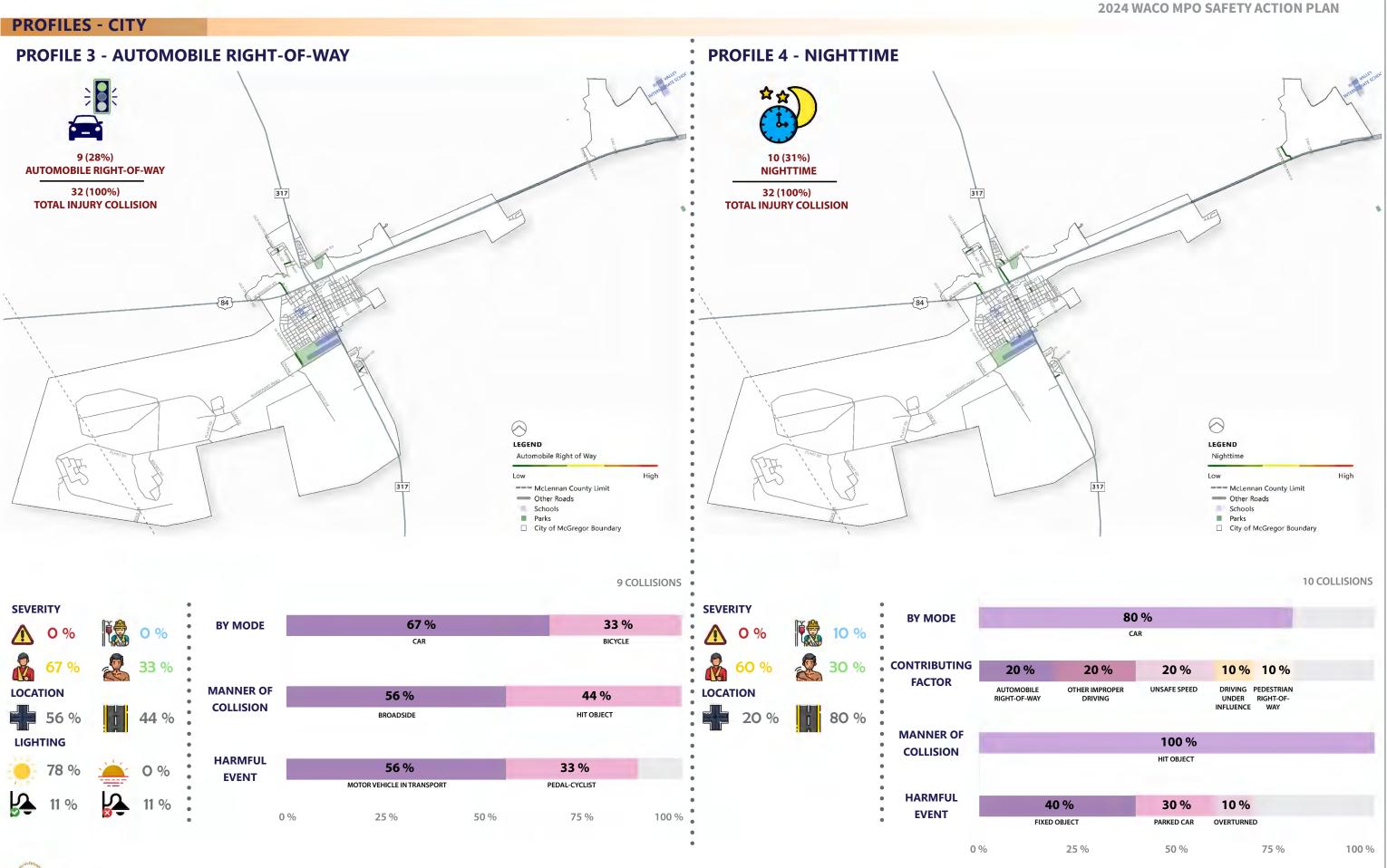
### **INTERSECTIONS**





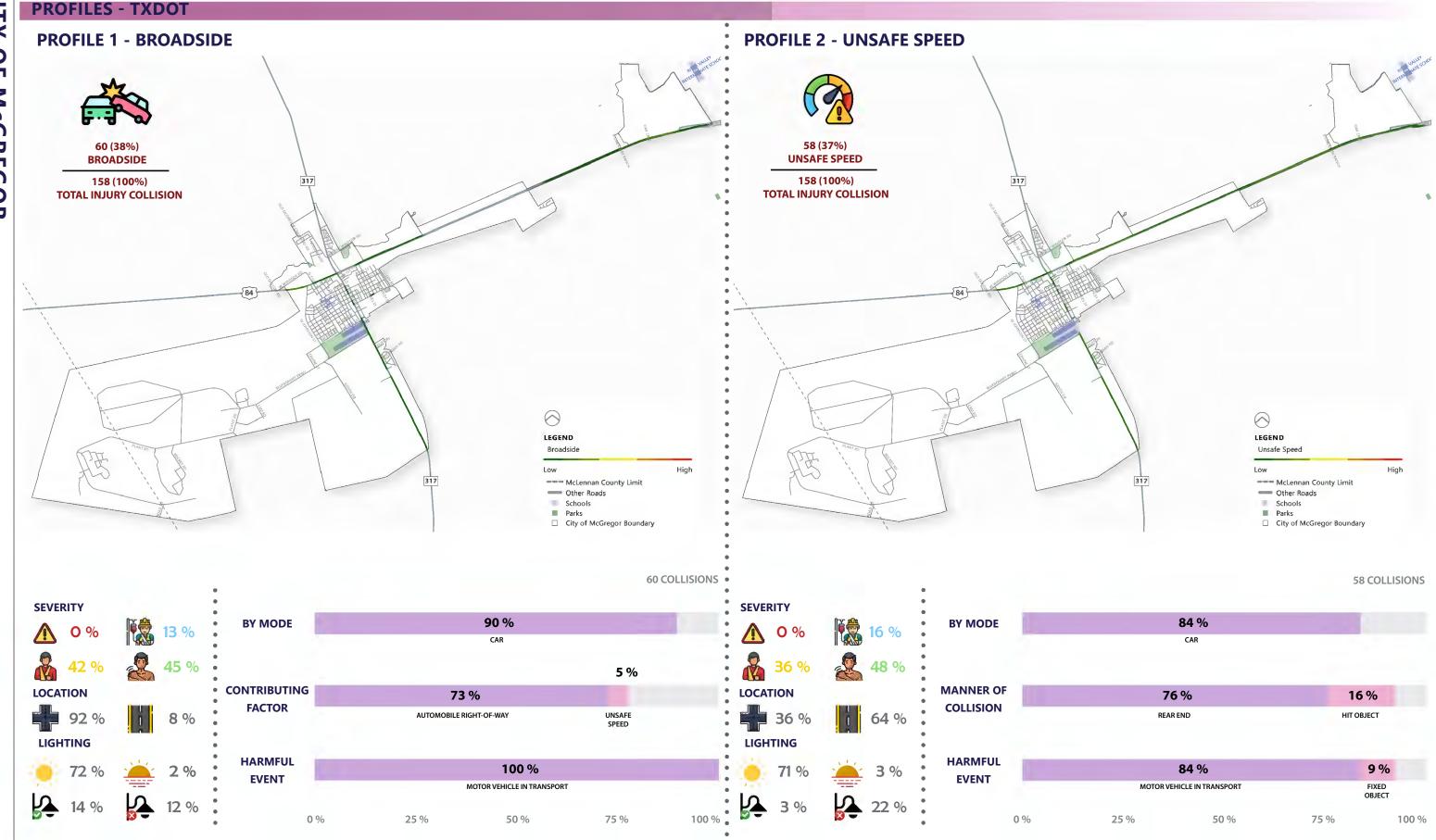




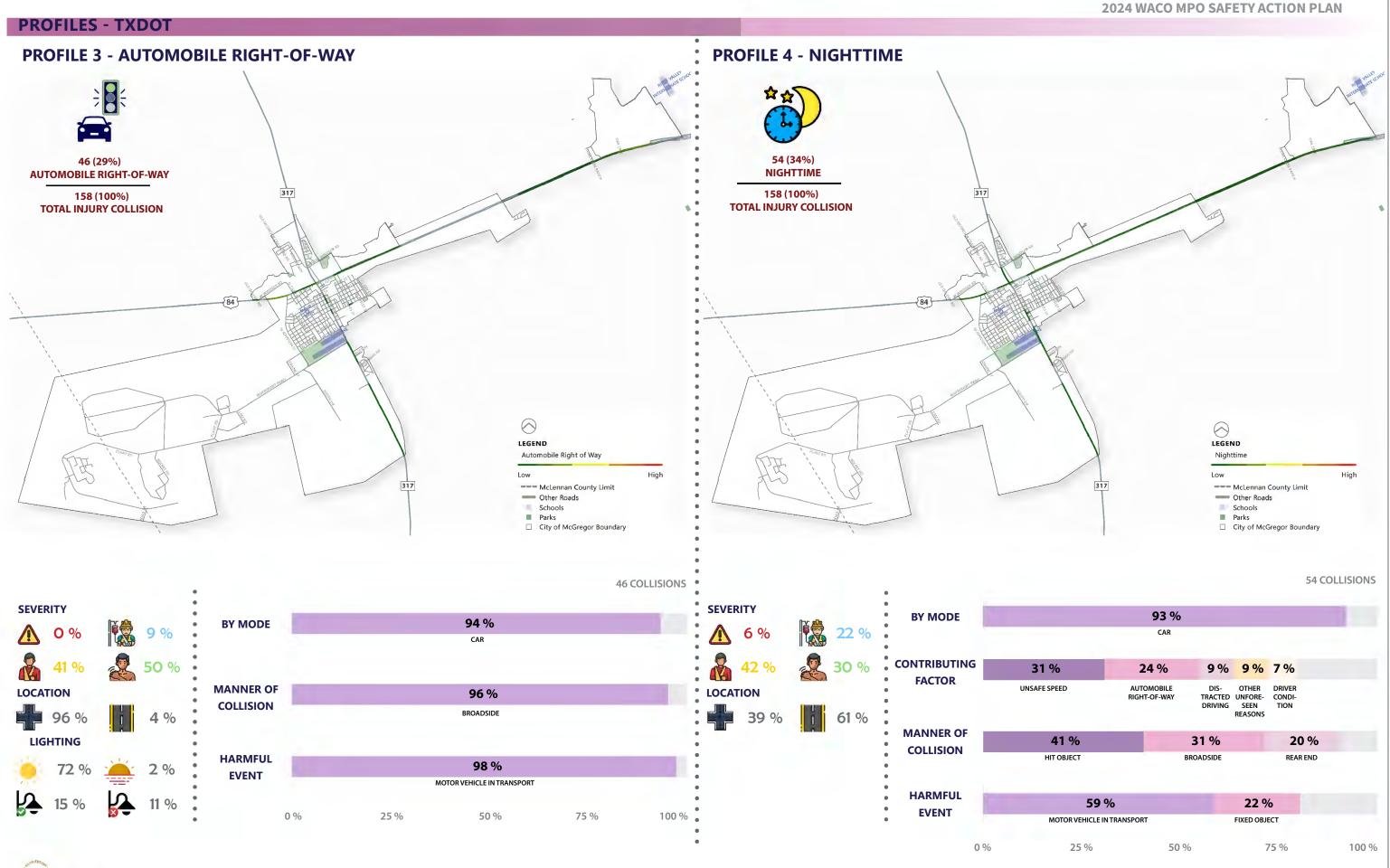




### 2024 WACO MPO SAFETY ACTION PLAN









# NEIGHBORHOOD TRAFFIC CALMING PROJECT

The residential streets around Main Street between Mc-Gregor Dr. and 11th St need a Neighborhood Traffic Calming Project due to cut-through traffic and speeding issues created by the busy downtown corridor. A neighborhood traffic calming program typically involves initiatives aimed at reducing traffic speed and improving safety on residential streets. These programs often include measures such as speed humps, traffic circles, chicanes, curb extensions, and signage to encourage drivers to slow down and be more cautious in residential areas. The program also involves community engagement and input to identify specific traffic issues and develop appropriate solutions tailored to the neighborhood's needs. Overall, the goal of a neighborhood traffic calming program is to create safer and more livable streets for residents and pedestrians.

### **SAFE ROUTES TO SCHOOL**

The City of McGregor is in need of implementing a Safe Routes to School program aimed at enhancing safety and accessibility for children who walk or bike to local schools. This program focuses on promoting walking and bicycling to school through various means, including infrastructure improvements, enforcement, tools, safety education, and incentives. Additionally, the program's scope includes evaluating arrival and dismissal procedures and identifying infrastructure needs such as sidewalks, bike lanes, and enhanced crossing locations around all schools.

# McGREGOR TEXAS TRAIN STATION CONNECTIVITY PLANNING

This plan aims to ensure safe, multi-modal access to the new train station from all parts of the city. Potential elements of this plan should include the development of pedestrian and bicycle pathways, along with infrastructure improvements to support these modes of transportation. Additionally, the plan should consider the implementation of parking facilities, public transit connections, and street redesigns aimed at enhancing vehicular access to the station area. By incorporating these elements, the plan seeks to provide residents with a variety of transportation options while facilitating convenient and safe access to the train station.

# LEGEND Serious Injury Possible Injury High Injury Network - City & TxDOT - McLennan County Limit Other Roads Schools Parks ☐ City of McGregor Boundary

# ACTIVE TRANSPORTATION PLAN (PED & BIKE FACILITY)

The City of McGregor is in need of implementing an Active Transportation Plan (ATP) to promote increased walking, biking, and the use of other non-motorized transportation modes. This comprehensive plan will delineate strategies, policies, and infrastructure enhancements aimed at fostering safer and more accessible environments for pedestrians and cyclists within the city.

The ATP will entail an evaluation of existing multi-modal infrastructure improvements and safety measures, while also identifying gaps and deficiencies in infrastructure such as sidewalks and bike lanes. Additionally, the plan will focus on raising awareness about the benefits of walking and cycling, as well as educating the community about road safety and the importance of sharing the road with other users.

Furthermore, the ATP will involve the implementation of policies and regulations to support active transportation, including the adoption of Complete Streets policies, zoning regulations prioritizing pedestrian and cyclist safety, and incentives for developers to incorporate active transportation infrastructure into new developments.

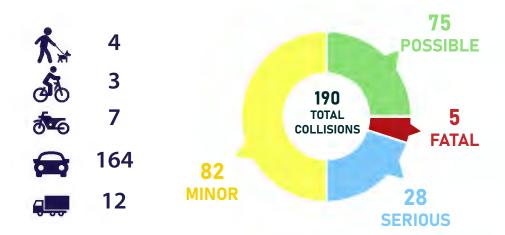
Moreover, the ATP will provide an opportunity to integrate with public transit systems by ensuring seamless connectivity between walking, cycling, and public transit networks. By fostering a more pedestrian- and cyclist-friendly environment, the ATP aims to promote healthier lifestyles, reduce traffic congestion, and create more vibrant and livable communities in McGregor.



### **PROJECT 1:** CITYWIDE SIGN INVENTORY & PAVEMENT DELINEATION

The City of McGregor is proposing a Citywide Sign Inventory and Pavement Delineation project to improve roadway safety and navigation for drivers. The proposed initiative would commence with a thorough assessment of all existing traffic signs throughout the city to identify any that are damaged, faded, obstructed, or non-compliant with current regulations regarding reflectivity. Such signs would be replaced as necessary to ensure clear visibility during both day and night. Additionally, the project would encompass surveying all road markings, including lane lines, turn arrows, crosswalks, and other pavement delineations across the city.

### **INJURY COLLISION STATISTICS**



### **TRENDS**





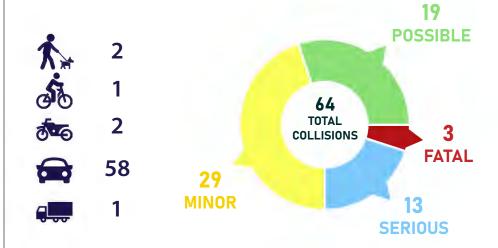
	IMPROVEMENTS	LIMIT	ESTIMATED COST
	Sign Inventory, Replacement & Installation	Citywide	\$89,100
***	Install Pavement Delineation	Citywide	\$3,416,000
		CONTINGENCY COST	\$701,100
		ENGINEERING COST	\$1,051,600
		TOTAL COST	\$2,257,800



### **PROJECT 2:** CITYWIDE STREET LIGHT INVENTORY

The City of McGregor is proposing a Citywide Streetlight Inventory and Replacement initiative designed to improve nighttime visibility and safety for motorists, cyclists, and pedestrians. This project involves conducting a comprehensive inventory of all current streetlights across the city to identify missing streetlights, update outdated inventories, generate reports for non-functioning fixtures, and identify types of lights. Subsequently, outdated, damaged, or inadequately illuminating lights will be replaced with new LED streetlights. It is expected that the enhanced lighting will reduce injury crashes and enhance safety for both residents and visitors navigating McGregor's streets during the nighttime hours.

### **NIGHTTIME INJURY COLLISION STATISTICS**



### **TRENDS**



### 2024 WACO MPO SAFETY ACTION PLAN



IMPROVEMENTS	LIMIT	ESTIMATED COST
Install/ Replace Street Lights	Citywide	\$2,522,000
	CONTINGENCY COST	\$504,400
	ENGINEERING COST	\$1,059,300
	TOTAL COST	\$4,085,700



### PROJECT 3-A: MAIN STREET (SH-317): US-84 (McGREGOR DRIVE) TO 11TH STREET- SAFETY IMPROVEMENTS

Main Street (SH-317), a two-lane minor arterial with a center two-way left turn lane, runs through downtown and provides parallel parking from 1st Street to 6th Street. The speed limits vary, set at 30 mph through downtown and 50 mph between 11th Street and Bluebonnet Parkway. Main Street provides access to the McGregor Primary, Elementary and High Schools. The McGregor Vision 2030 identifies a need for walkability and streetscape improvements.

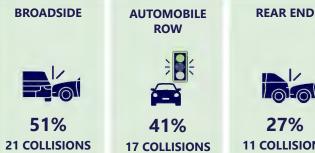
### **INJURY COLLISION STATISTICS**



### **TRENDS**



51%





### **EXISTING CONDITIONS**



**Existing Condition:** Main St (SH-317) at 7<sup>th</sup> St facing south

**Existing Condition:** Main St (SH-317) at W 4th St facing north



### **ESTIMATED COST OF IMPROVEMENT**

	3A: MAIN STREET FROM US	S-84 (McGREGOR DR) TO 11th ST- SAFETY IMPROVEMEN	ITS
	IMPROVEMENTS	LOCATIONS	ESTIMATED COST
林	Fill Sidewalk Gaps	US-84 (McGregor Dr) to W 1st St & 6th St to 11th St	\$1,114,600
TAX .	Crosswalk Enhancement	2nd, 4th & 9th St	\$340,400
YOR	Install Speed Feedback Sign	Between 1st St & N 2nd St & 6th St & 7th St	\$34,500
	Install Street Lighting & Medians	US-84 (McGregor Dr) to 11th St	\$1,378,900
	Signalized Intersection Improvements	3rd St & 6th St	\$27,600
	Install Pedestrian Hybrid Beacon (PHB)	11th St	\$231,200
		CONTINGENCY COST	\$625,500
		ENGINEERING COST	\$1,313,500
		TOTAL COST	\$5,066,200

Serious Injury

Minor Injury

Minor Injury Possible Injury

Main Street (SH-317) is a two-lane minor arterial roadway, from 11th Street to Rachael Road. The speed limits vary, set at 50 mph between 11th Street and Bluebonnet Parkway and 55 mph south of Bluebonnet Parkway.

### **INJURY COLLISION STATISTICS**





82%
9 COLLISIONS

UNSAFE SPEED

64%
7 COLLISIONS

NIGHTTIME

36%

**4 COLLISIONS** 

55%

**6 COLLISIONS** 

**REAR END** 

### **EXISTING CONDITIONS**



Existing Condition:
Main St (SH-317) at 11<sup>th</sup> St facing south

**Existing Condition:**Main St (SH-317) at Dutton Dr facing north



LOCATIONS	ESTIMATED COST
Between Bluebonnet Pkwy and Rachael Rd	\$17,300
Between Bluebonnet Pkwy and Rachael Rd	\$17,300
11th St to David Davis Dr	\$1,606,400
Bluebonnet Pkwy	\$231,200
CONTINGENCY COST	\$374,500
ENGINEERING COST	\$786,400
TOTAL COST	\$3,033,100
	Between Bluebonnet Pkwy and Rachael Rd  11th St to David Davis Dr  Bluebonnet Pkwy  CONTINGENCY COST  ENGINEERING COST





US-84 (McGregor Dr) & Main St (SH-317)

Minor Injury

Possible Injury

The US-84 (McGregor Drive) corridor features two essential intersections: a signalized four-way crossing with Main Street (SH-317) and a signalized T-intersection at Johnson Drive; The speed limit for approaching the US-84/Main Street intersection is 35 mph, whereas it ranges between 35 mph to 45 mph at Johnson Drive.

### **INJURY COLLISION STATISTICS**



### TRENDS

**AUTOMOBILE BROADSIDE ROW 67%** 58% **24 COLLISIONS** 21 COLLISIONS

**REAR END UNSAFE SPEED** 25% 9 COLLISIONS

19% **7 COLLISIONS** 

### **EXISTING CONDITIONS**



### **Existing Condition:**

Main St (SH-317) at US-84 (McGregor Dr) facing

### **Existing Condition:**

Johnson Dr at US-84 (McGregor Dr) facing east



### **ESTIMATED COST OF IMPROVEMENT**

4: US-84 (McGREGOR DR)- INTI	ERSECTION SAFETY IMPROVEMENTS	
IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Intersection Improvements: Crosswalks, Sidewalks, Protected Lefts, Remove Slip Lanes, Signal Head Backplates, Warning Beacons	US-84 (McGregor Dr) & Main St (SH-317)	\$667,700
Intersection Improvements: Crosswalks, Sidewalks, Protected Lefts, Remove Slip Lanes, Signal Head Backplates, Warning Beacons	US-84 (McGregor Dr) & Johnson Dr	\$579,300
	CONTINGENCY COST	\$249,400
	ENGINEERING COST	\$523,800
	TOTAL COST	\$2,020,200

US-84 (McGregor Dr) & Johnson Dr

Serious Injury

### **PROJECT 5: PEDESTRIAN SAFETY IMPROVEMENTS**

### **2024 WACO MPO SAFETY ACTION PLAN**

N BRD ST Nandst WINDST WERDST BLUEBONNET PKWY मण्डातम छा

Serious Injury

Minor Injury

Possible Injury

Main Street (SH-317), a two-lane minor arterial, provides indirect access to McGregor Primary, Elementary, and High Schools, as well as residential neighborhoods, with a posted speed limit of 55 mph. West 6rd Street, a two-lane undivided local street, provides access to residential areas near McGregor Schools, with a speed limit of 30 mph. Bluebonnet Parkway and Johnson Drive complete the boundary of the project area. Bluebonnet Parkway, with speed limits ranging from 30 to 45 mph, provides direct access to the schools. This pedestrian safety improvement project is within a 0.25-mile radius of McGregor Primary, Elementary, and High Schools.

# INJURY COLLISION STATISTICS TRENDS INTERSECTION HIT MINOR 1 TOTAL COLLISIONS TRENDS INTERSECTION HIT TOTAL COLLISIONS 14 COLLISIONS 8 COLLISIONS 18 COLLISIONS 18 COLLISIONS

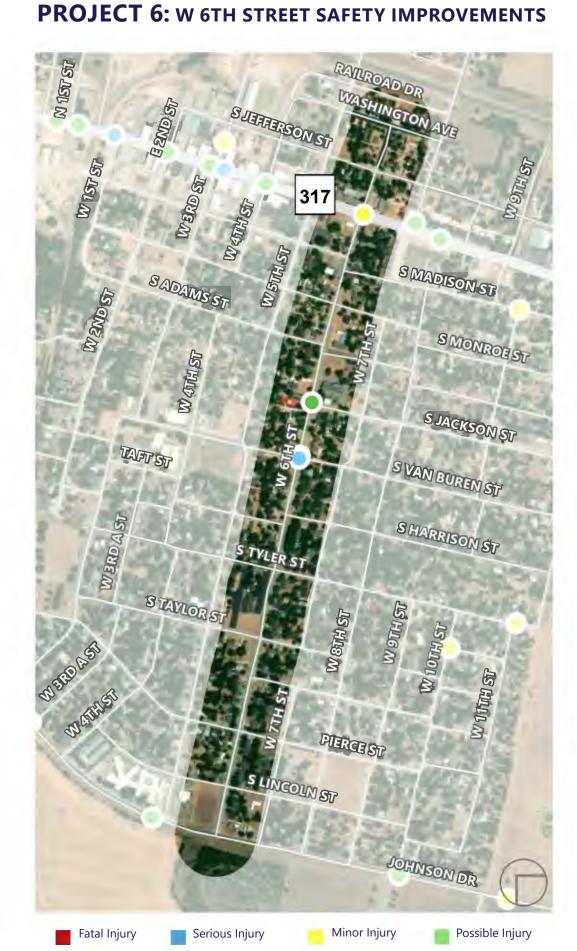


### **ESTIMATED COST OF IMPROVEMENT**

		7: COL	JNTYWIDE- INTERSECTION SAFETY IMPROVEMENTS	
	IMPROVEMENTS		LOCATIONS	ESTIMATED COST
	Pedestrian Connectivity Improvements (Sidewalks & Crosswalks)	1	W 6th Street from S Main Street SH-317 to Johnson Drive	\$2,643,200
		2	Bluebonnet Pkwy from SH-317 to Johnson Drive	\$1,115,800
		3	Johnson Drive from W 6th Street to Bluebonnet Pkwy	\$895,000
		4	S Tyler Street from W 6th Street to 11th Street	\$1,174,800
		5	S Jackson Avenue from W 6th Street to 11th Street	\$1,208,200
		6	S Jackson Avenue from 11th Street to Bluebonnet Pkwy	\$784,600
		7	S Madison Avenue from W 6th Street to W 11th Street	\$1,099,800
		8	Main Street (SH-317) from 6th Street to Bluebonnet Pkwy	\$1,190,800
		9	W 8th Street from Main Street (SH-317) to Johnson Drive	\$2,389,500
		10	W 10th Street from S Tyler Street to Johnson Drive	\$1,132,800
		11	W 10th Street from S Madison Avenue to S Harrison Avenue	\$1,050,800
		12	W 11th Street from Main Street (SH-317) to Johnson Drive	\$986,200
			CONTINGENCY COST	\$3,134,300
			ENGINEERING COST	\$6,582,030
			TOTAL COST	\$25,387,830



Fatal Injury



W 6th Street is a residential street with two undivided lanes accommodating two-way traffic and maintaining a posted speed limit of 30 mph. It is bordered by concrete curbs on both sides and offers intermittent on-street parking spaces. W 6th street lies within 0.25 mile of McGregor Junior High School.

### **INJURY COLLISION STATISTICS**



### **TRENDS**





40% 2 COLLISIONS

**NIGHTTIME** 

### **EXISTING CONDITIONS**



# **Existing Condition:**W 6<sup>th</sup> St at Johnson Dr facing east

**Existing Condition:** W 6<sup>th</sup> St at S Tyler St facing east



5 : W 6TH STREET: WASHINGTO	N AVE TO JOHNSON DR- SAFETY IMPROVEME	NTS
IMPROVEMENTS	LOCATIONS	ESTIMATED COST
Install Stop Bars	\$2,700 \$28,100 From Washington Ave to Johnson Dr \$453,100 \$13,800	\$2,700
Install Centerline Striping		\$28,100
Install Street Lighting		\$453,100
Sign Upgrades		\$13,800
	CONTINGENCY COST	\$99,600
	ENGINEERING COST	\$209,100
	TOTAL COST	\$806,400

### PROJECT 7: US-84 (McGREGOR DRIVE): FROM CITY LIMIT EAST TO CITY LIMIT WEST- SAFETY IMPROVEMENTS

### **2024 WACO MPO SAFETY ACTION PLAN**

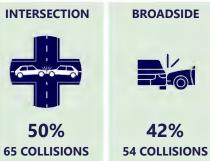
SAMANTHARD OAK RD GUPP RD FOSSIL RIM RD GAMP RD MEADOW TRL COTTON BELT PKWY LIFESTYLE UN SMITHRD VAL VERDERO WILLOW BRANCH RD WILDFLOWER WINDSORRE BRANDT LN INDIAN TRL UNTILE AVE JOHNSON DR Serious Injury Possible Injury Fatal Injury

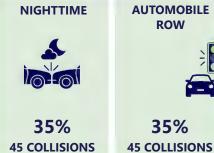
US-84 (McGregor Drive) is a major US highway designated as a principal arterial, traversing east-west through the City of McGregor. Within the city limits, this roadway is a four-lane divided highway to the east of N Main Street. However, to the west of N Main Street, US-84 expands to a five-lane configuration, incorporating a two-way left turn lane. The speed limit varies, it ranges from 50 mph to 70 mph within the city limits.

### **INJURY COLLISION STATISTICS**



### **TRENDS**



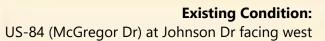


### **EXISTING CONDITIONS**



### **Existing Condition:**

US-84 (McGregor Dr) at SH-317 (Main St) facing east





	6: US-84 (McGREGOR DR): FROM EAST OF CITY LIMITS TO WEST OF CITY LIMITS- SAFETY IMPROVEMENTS		
	IMPROVEMENTS	LOCATIONS	ESTIMATED COST
	Install Street Lighting	From City Limit East to City Limit West	\$1,162,400
	Install Guardrails	East of Main St and East of Garfield Ave	\$14,400
10	Install Median	Main St (SH-317) to City Limit West	\$1,336,300
ŻX	Fill Sidewalk Gaps	Johnson Dr to West of City Limit	\$3,896,100
A A	Install Shared Use Path	Along Railroad From Johnson St to Cotton Belt Pkwy	\$8,001,700
A A A	Install Shared Use Path	2nd and 3rd St from Main St to Johnson St	\$1,296,700
		CONTINGENCY COST	\$3,141,600
		ENGINEERING COST	\$6,597,300
		TOTAL COST	\$25,446,500



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