

Masters Drive Transportation Safety Study

Limits: US 175 to Military Parkway

Public Meeting
April 22, 2025

City of Dallas Department of Transportation
and Public Works



Presentation Purpose and Outline

Presentation Purpose:

1. Present a recap of the Existing Conditions analysis and proposed improvements.
2. Collect public input on short, medium, and long-term improvements before finalizing the study report.

Presentation Outline:

- Study Background
- Study Timeline
- Existing Conditions
- Proposed Improvements
- Next Steps



Study Background

Dallas Vision Zero Action Plan

- The High Injury Network (HIN) identifies streets that account for a disproportionate number of fatal and severe crashes in Dallas.
- **Masters Drive from US 175 to Military Parkway is part of the HIN (fatal and severe crash density of 14.83 from Bruton Road to Lake June Road).**
- **Goal of Vision Zero:** Eliminate all traffic-related deaths and reduce severe injury crashes by 50% by 2030.
- www.dallascityhall.com/visionzero



Study Background

Study Purpose:

- **Propose strategies and improvements to reduce severe traffic crashes.** Improvements will be implemented through the City's Vision Zero and other programs, subject to funding availability.
- The study aims to identify which corridor would accommodate a bicycle lane.

Public Survey Feedback:

- **Reducing speeds and improved safety for all modes of transportation** were the top goals
- Desire for **improved lighting** and **traffic calming**



Study Timeline



**Existing Conditions
Assessment**



**Identify
Opportunities**



**Evaluate Future
Operations**



**Identify and
Evaluate Potential
Treatments**



**Review and Revise
Potential Treatments**



**Documentation
and Reporting**
Fall 2025

Public Survey
Nov/Dec 2024



Public Meeting



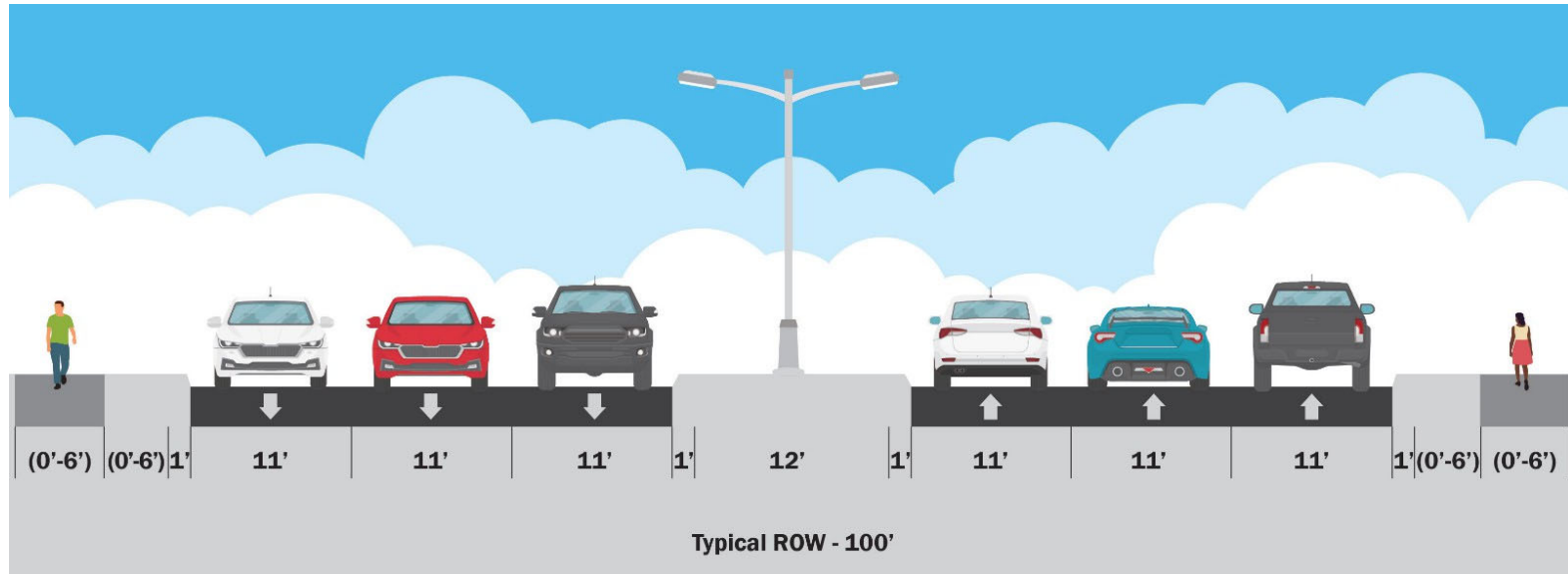
WE ARE HERE



EXISTING CONDITIONS



Existing Roadway Typical Section



The typical cross-section shown represents a general cross-section at Masters Drive, away from the influence of any intersections.

- Six-lane divided roadway
- Right-of-way varies along corridor
- Sidewalks on both sides (discontinuous)
- Three lanes in each direction - 11' width
- Dedicated left turn bays at all signalized intersections



Existing Conditions Data

Corridor Characteristics

Corridor Information



Approximately 5 miles



Minor Arterial, six-lane divided roadway



Posted speed limit
(40 mph)



32 bus stops
(6 have benches, 3 have shelters)



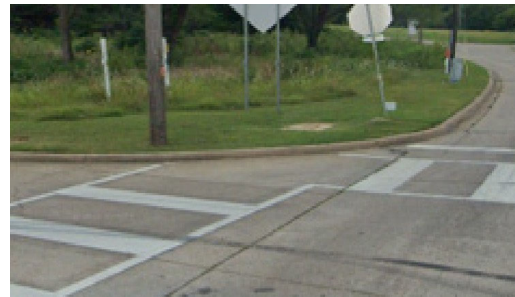
11,300-18,800
vehicles per day



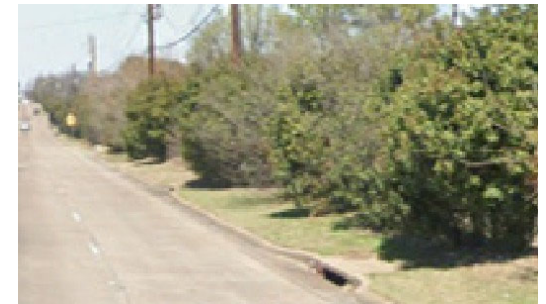
Sidewalks obstructed by utility poles,
mailboxes, and trash cans



Ramps not ADA compliant



Curb ramps missing at Sam
Houston Road



No sidewalks and road signs
obscured by overhanging trees



Existing Conditions Data

Spot Speed Data & Traffic Volumes

Spot Speed Data Summary				
From	To	Posted Speed Limit (mph)	85 th Percentile Speed (mph)	Highest Speed (mph)
Scyene Road	Bruton Road	40	51	>70
Bruton Road	Lake June Road	40	46	>70
Lake June Road	Laneyvale Avenue	40	45	65-70
Laneyvale Avenue	Elam Road	40	49	>70
Elam Road	US 175	40	46	65-70
Scyene Road	Bruton Road	40	51	>70



Existing Conditions Data

School Zones

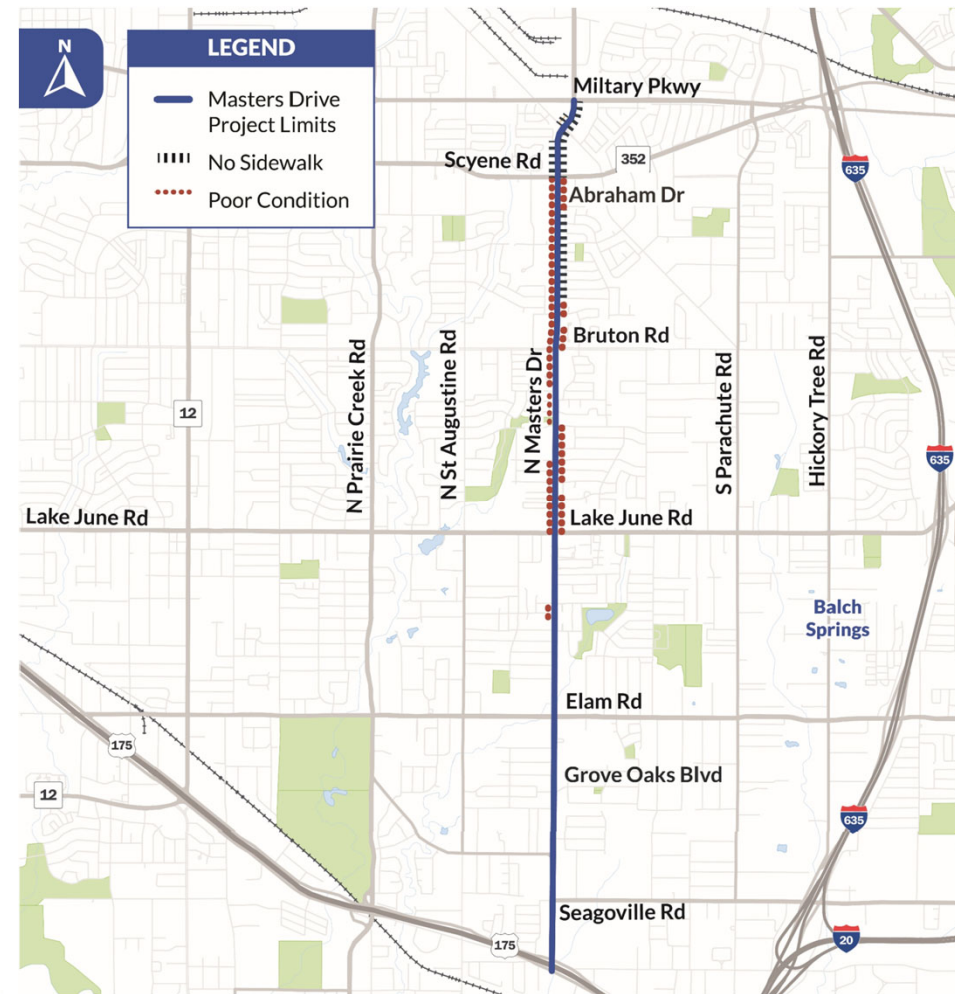
- 4 school zones
 - Young Men's Leadership Academy at Fred F. Florence Middle School
 - Kingdom Harvest Church of God in Christ
 - A+ Academy Secondary School
- High pedestrian activity at Checota Drive, between Bruton Road and Lake June Road at Young Men's Leadership Academy at Fred F. Florence Middle School



Existing Conditions Data

Sidewalk Deficiencies

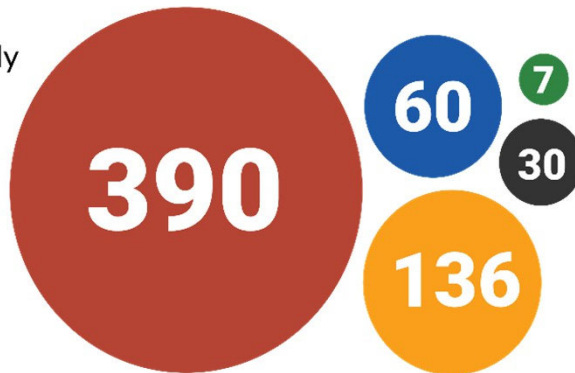
- No sidewalks on east side between Carolina Oaks Drive and Abraham Drive (Top priority project in Dallas Sidewalk Master Plan, 2021)
- Discontinuous sidewalks on both sides between Scyene Road and Military Parkway
- Approximately 40% of corridor length missing sidewalk or in poor condition



Crash Data (2018-2022)

Total 623 Crashes

- Property Damage Only
- Possible Injury
- Minor Injury
- Severe Injury
- Fatality



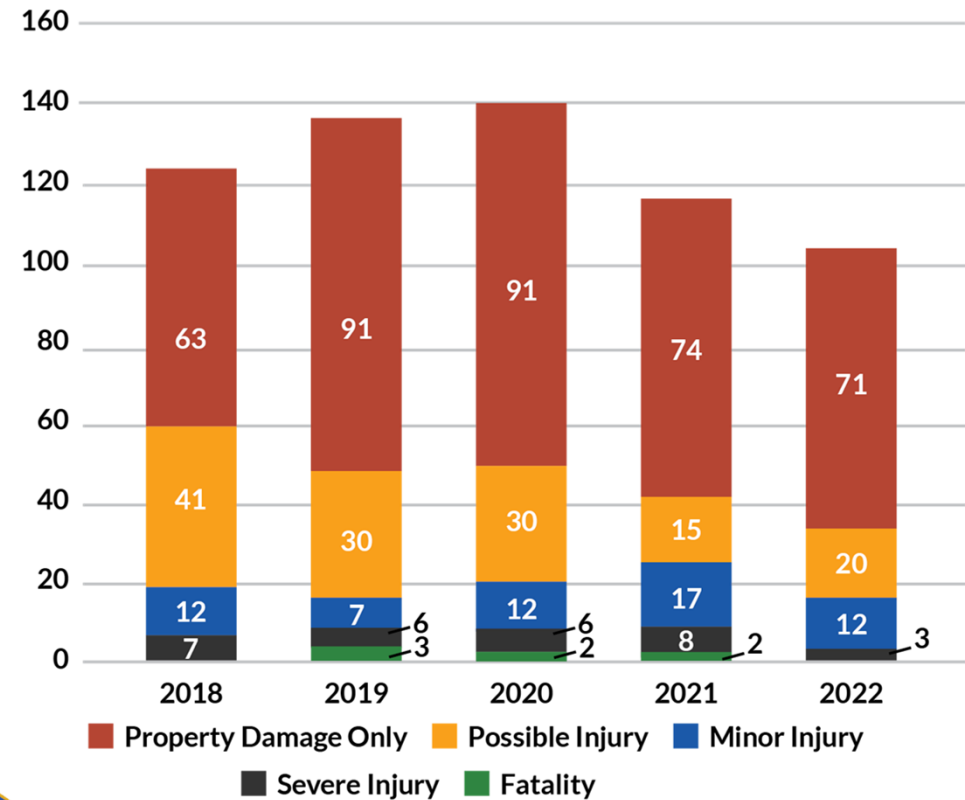
Corridor Crash Rate (2019)	610.43
Statewide Average Crash Rate (2019)	174.67
Corridor to Statewide Ratio	3.49



Masters Drive is part of the High Injury Network and crash rates are about **3 times** that of similar facilities statewide in Texas.



Crash Count by Crash Severity (2018-2022)



Crash Data (2018-2022)

Heat Map

- Top 3 factors for all crashes include:
 - Failed to Yield Right of Way – 259 crashes (42%)
 - Failed to control speed/speeding - 110 crashes (18%)
 - Disregard traffic control device - 95 crashes (15%)



Travel speeds along the corridor should be managed to encourage motorists to drive within speed limits and enhance safety for all road users.



Crash Data (2018-2022*)

Fatal and Severe Injury Crashes (37 crashes)

Top 5 fatal and severe injury crash factors:

- Failed to control speed/speeding -13 crashes (35%)
- Failed to Yield Right of Way – 13 crashes (35%)
- Disregard traffic control device - 9 crashes (24%)
- Driving under influence – 8 crashes (22%)
- Unsafe speed – 4 crashes (11%)

Key Patterns:

- About 50% occurred during nighttime hours
- 38% occurred at unsignalized intersections and 33% at signalized intersections
- 35% were right angle crashes

* Reviewed more recent crash data (2022 - 2024), 21 fatal and severe injury crashes from 2022 to 2024.



Crash Data (2018-2022*)

Crashes Involving Pedestrians or Bicyclists (10 crashes)

Top 3 crash factors:

- Pedestrian Failed to Yield Right of Way to vehicle - 4 crashes (40%)
- Vehicle Failed to Yield Right of Way - 3 crashes (30%)
- Failed to drive in single lane/ Disregard Stop Sign or Light - 2 crashes (20%)

Key Patterns:

- 30% of the pedestrian and bicyclist crashes occurred in nighttime hours.

* Reviewed more recent crash data (2022 - 2024), 3 fatal and severe injury crashes involving a pedestrian from 2022 to 2024.



Summary

- The corridor is part of the HIN and experiences about 3 times the crash rate of similar facilities statewide in Texas
- 85th percentile speeds along the corridor are high and it is easy to speed
- Failure to control speed/speeding were a prominent factor in fatal and severe injury crashes
- The corridor has four school zones; high pedestrian activity identified at Checota Drive
- Most pedestrian and bicyclist crashes occurred between Lake June Road and Bruton Road



Summary

- Improvements such as pavement markings and signage may offer increased safety, improved visibility, and a more pleasant and navigable environment
- About 50% fatal and severe injury crashes occurred during nighttime (all streetlights have since been converted to LED)
- Failure to Yield Right of Way is the most significant crash factor for all crashes



PROPOSED IMPROVEMENTS



Proposed Improvements

- High-level review
- Estimated year of completion
 - Short-term improvements – less than 2 years
 - Medium-term improvements – 3-5 years
 - Long-term improvements – over 5 years



Proposed Improvements

Short-term Improvements: Less than 2 years



Install/refresh signs

Install or update the signs to improve visibility and enhance safety throughout the corridor.



Improve pavement markings and crosswalks with retroreflectivity

Improve pavement markings and crosswalks with retroreflectivity throughout the corridor.



Permanent speed feedback signs

Installing permanent dynamic speed feedback signs has been shown to reduce total crashes by 7%.**



Public education and outreach

Share safety tips with the community through flyers, events, or social media to encourage people to drive and walk safely.



Enhanced traffic enforcement

Increase law enforcement personnel dedicated to traffic enforcement.



New traffic signal

Where warranted, traffic signals can reduce crashes by 35%.*



Signal backplates with retroreflective border

Install on all traffic signal heads.



Tree trimming

Cut back overgrown trees and bushes that block signs.



Flashing yellow arrow

Upgrade yield-on-green indications to flashing yellow arrows.



School zone backflashers

Ensure all school zones have back flashers.



Install stop ahead sign

To increase conspicuity of stop sign, install at: Carolina Oaks Drive, Grove Oaks Boulevard, Shelburne Drive, Sand Springs Avenue.



*Source: TxDOT HSIP Guidelines

** Source: FHWA Proven Safety Countermeasures

Proposed Improvements

Medium-term Improvements: 3-5 years



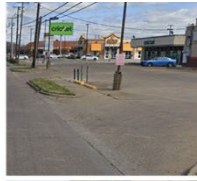
High-visibility pedestrian crosswalk

High-visibility crosswalks can reduce pedestrian injury crashes up to 40%.**



Install/improve sidewalks

Repair existing sidewalks and widen/repave deficient sidewalks to enhance walkability along the corridor.



Access management

One driveway each recommended to be closed at Lake June Road intersection and Bruton Road intersection.



Curb ramp improvements

Install or upgrade curb ramps to meet ADA standards.



Signal retiming

Adequately time yellow change and all red intervals to reduce angle crashes and implement leading pedestrian intervals (LPIs) to reduce vehicle-pedestrian crashes at: Bruton Road, Scyene Road, Lake June Road, Military Parkway.

Long-term Improvements: Over 5 years



Application of high friction surface treatment (HFST)

To reduce wet pavement and run-off crashes at intersection approaches.



Trees in the median/landscaping

Add trees in the median throughout which will help with traffic calming.



Install/improve lighting

Install streetlights between Sam Houston Road and Military Parkway. City of Dallas has recently upgraded the lighting to LED fixtures along the corridor.



Mailbox consolidation

Consolidate mailboxes which are abutting into sidewalks.



Dedicated turn lanes

Installing dedicated right-turn lane has been shown to reduce total crashes by 14-26%. Installing a dedicated left-turn lane has been shown to reduce total crashes by 28-48%.**



New traffic signal

Where warranted, traffic signals can reduce crashes by 35%.*



Partnership with TxDOT, DART, Dallas ISD and other stakeholders

Coordination with various stakeholders for safety improvements.



*Source: TxDOT HSIP Guidelines
** Source: FHWA Proven Safety Countermeasures

Proposed Improvements

New traffic signals (S/L)	High-visibility pedestrian crosswalk (M)
• Checota Drive (S) • Old Seagoville Road (S) • US 175 Frontage Roads (L)* • Oak Gate Lane (L)* * Signal is warranted based on TMUTCD Warrant analysis	• Sand Springs Avenue With advanced school crossing signs
Permanent speed feedback signs (S)	Exclusive turn-lane locations (L)
• South of Big Thicket Drive • North of Lake June Road • North of Bruton Road	• EB dual Left-turn and WB Right-turn at US 175** • SB Left-Turn at Oak Gate • SB Right-Turn at Bruton • NB dual Left-Turn and Right-Turn at Scyene • SB dual Left-Turn and WB Right-Turn at Military • Increased storage length for existing turn lanes ** TxDOT approval is required for the intersections in TxDOT ROW

S: Short-term improvements; M: Medium-term improvements; L: Long-term improvements



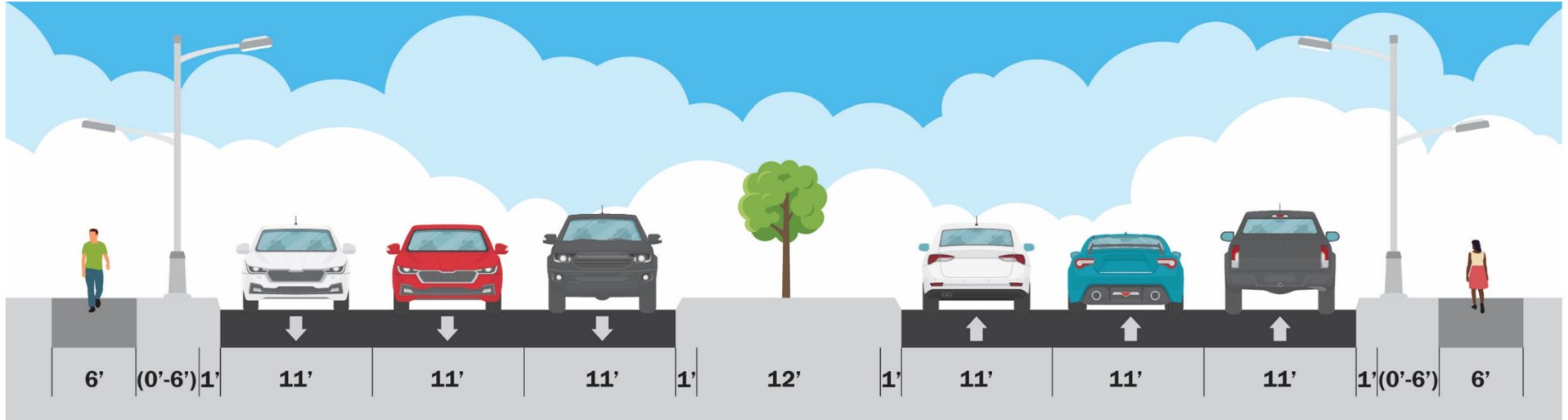
Proposed Improvements

- Install/refresh signs (S)
- Improve pavement marking and crosswalks with retroreflectivity (S)
- Repair existing sidewalks, widen/repave deficient sidewalks (M)
- Upgrade pedestrian curb ramps to make them ADA compliant (M)

S: Short-term improvements; M: Medium-term improvements; L: Long-term improvements



Proposed Improvements



The typical cross-section shown represents a general cross-section at Masters Drive, away from the influence of any intersections.

- Same roadway configuration as existing
- New traffic signals/signal timing changes (S/L)
- Continuous sidewalks on both sides (M)
- Turn lanes/storage bay extensions (L)
- Tree in the median (L)
- Continuous roadway and pedestrian lighting (L)



S: Short-term improvements; M: Medium-term improvements; L: Long-term improvements

Traffic Impact

Intersection	No Build (2045)		Proposed Improvements: Continuous Sidewalks - Entire Corridor (2045)	
	AM Peak	PM Peak	AM Peak	PM Peak
	Level of Service	Level of Service	Level of Service	Level of Service
US 175 EBFR	F	F	C	C
US 175 WBFR	F	F	B	B
Cushing Drive/ Old Seagoville Road	C	C	C	C
Elam Road	D	C	D	D
Lake June Road	E	F	D	E
Bruton Road	E	D	D	D
Scyene Road	D	E	C	D
Military Parkway	F	D	D	D

- 6-mph increase in speed in southbound during the PM peak compared to No Build.
- Lake June Road intersection is the most critical intersection which observes average delay of 63 seconds during PM Peak.

 **2.5%** | Traffic modeling assumes that traffic will increase by 2.5% annually from 2023 - 2045



Evaluation Matrix

Evaluation Matrix	No Build	Proposed Improvements: Continuous Sidewalks - Entire Corridor (2045)
SAFETY AND SPEED MANAGEMENT		
Supports Reduction of all crashes and severity	Poor	Good
Separation between pedestrians/bicyclists and vehicles	Fair	Fair
Encourages speed reduction	Poor	Good
MOBILITY AND ACCESS		
Improves pedestrian crossings and connections	Fair	Good
Supports biking	Poor	Poor
Supports transit access and travel times	Fair	Fair
Minimized impacts to vehicle travel times	Poor	Good
LIVABILITY		
Opportunity for street furnishings	Fair	Fair
Maximizes pedestrian comfort	Poor	Good
COST AND EASE OF IMPLEMENTATION		
Minimized ROW impacts	Good	Good
Minimizes scale of construction	Good	Fair



Next Steps



Ways to Provide Feedback

- Provide comments on the comment cards
- Send us your comments using the online survey form on the project website
- Please help us spread the word!

Project Website:

<https://bit.ly/mastaug>

In-person Comment Card:
Available at public meeting

Online Survey:

<https://hdr.jotform.com/250336307844052>



Next Steps

- Obtain and analyze public input on the improvements
- Finalize the short, medium, and long-term improvements based on the public input
- Design and implement the short-term improvements, subject to funding availability



THANK YOU!

<https://bit.ly/mastaug>

