

# US 70 East Corridor Study

AUGUST 2023



# Welcome

## Study Team

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### Core Technical Team Partners



# Meeting Goals

At the direction of the DCHC MPO Board, the US 70 Corridor Study was initiated, and a consultant was hired to study a 4-Lane boulevard option for the US 70 corridor

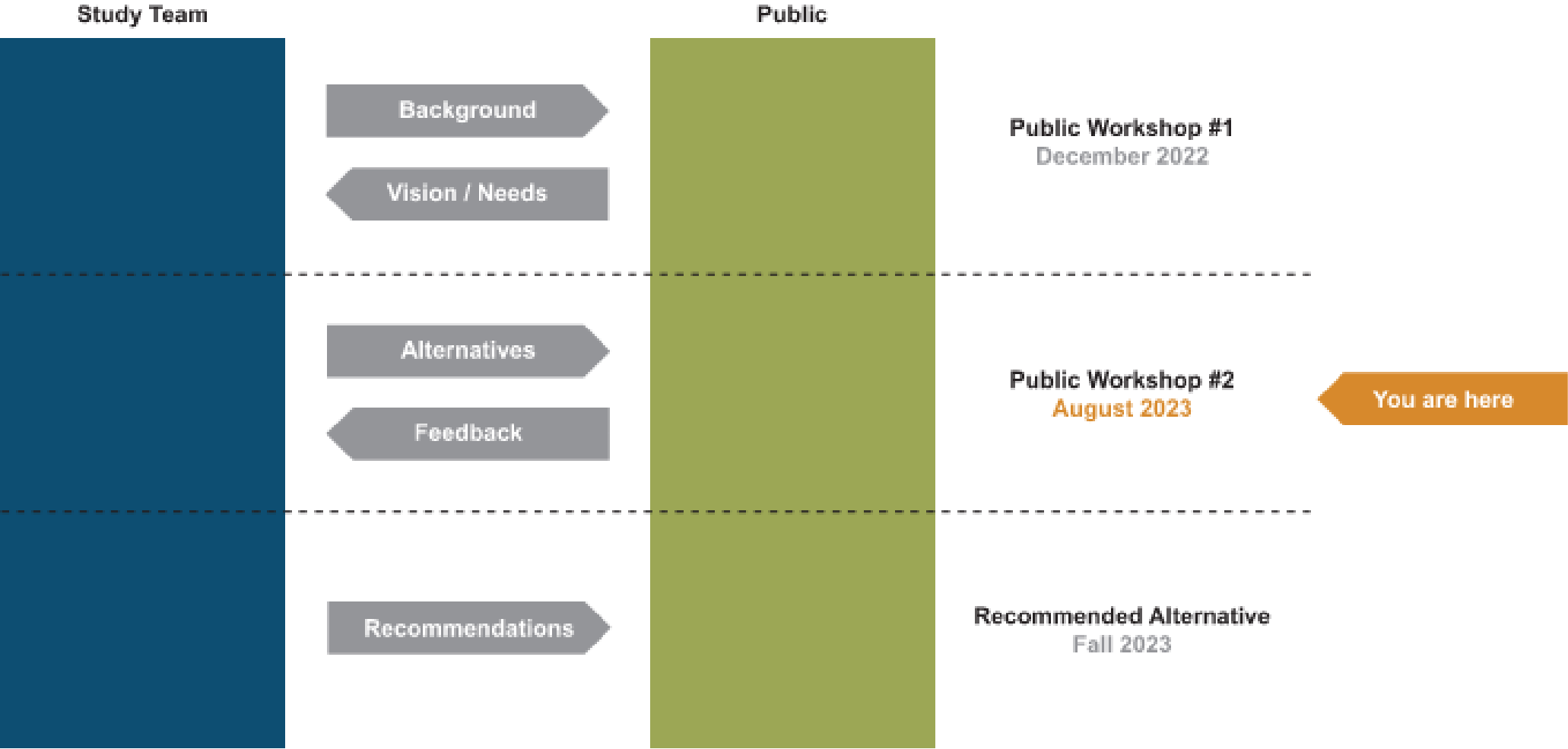
The US 70 East Corridor Study Team is presenting two alternatives for public feedback

- - Alternative 1 - 4 Lane Boulevard Section
- - Alternative 2 - 4 Lane Boulevard Section with Parallel Routes

The team also seeks feedback on trail/ greenway trail connection options crossing US 70

Preferred alternative (draft plan) can take components from both alternatives

# Study Process





# Outreach Key Take Aways

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US 70 is a vital commuter corridor

Vehicular congestion is a concern

Support for multimodal transportation options

Options for crossing US 70 safely by walking or biking needed

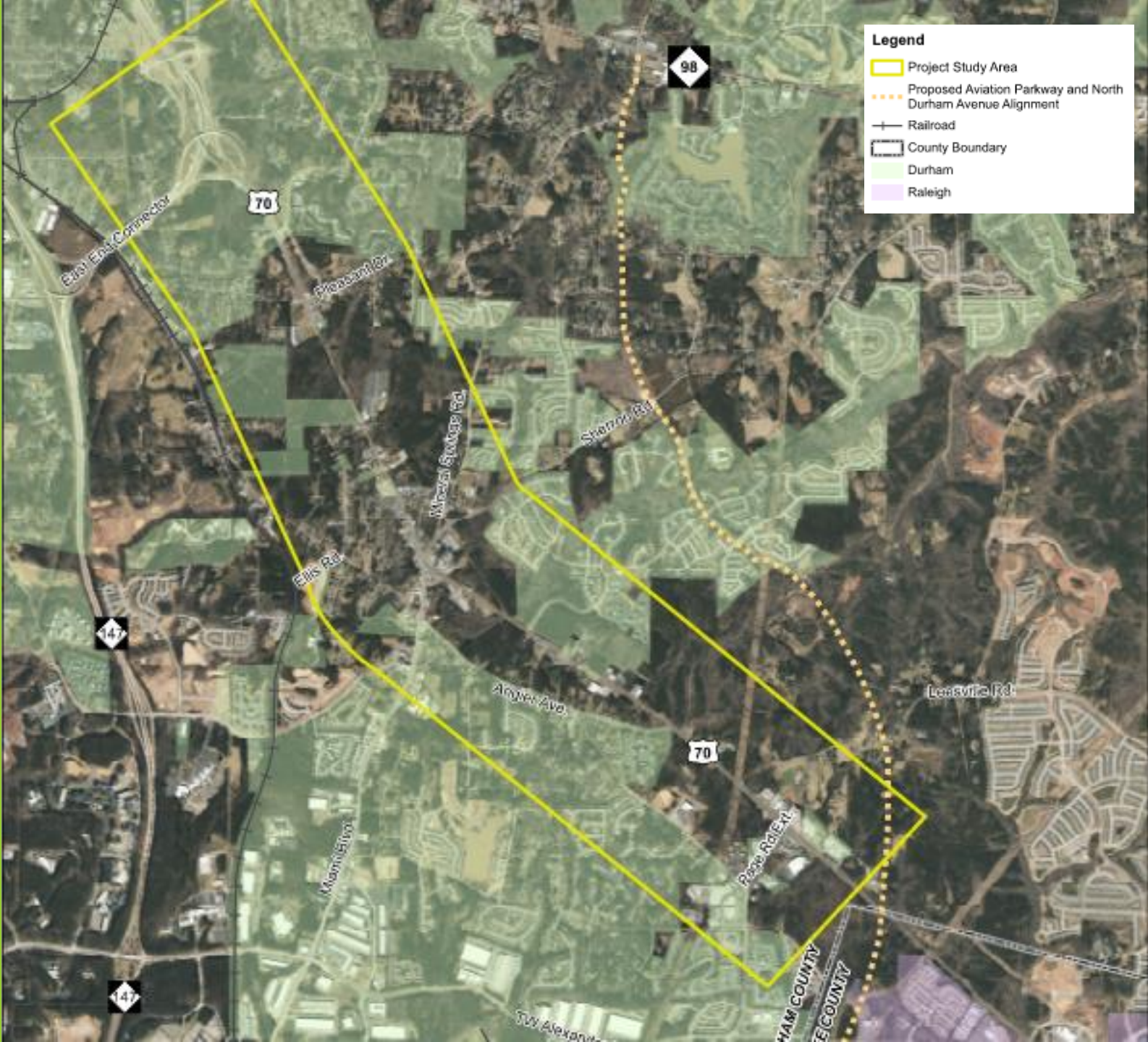
More accessibility to public transit desired

Impact of new upcoming developments is pushing infrastructure past being able to serve residents well

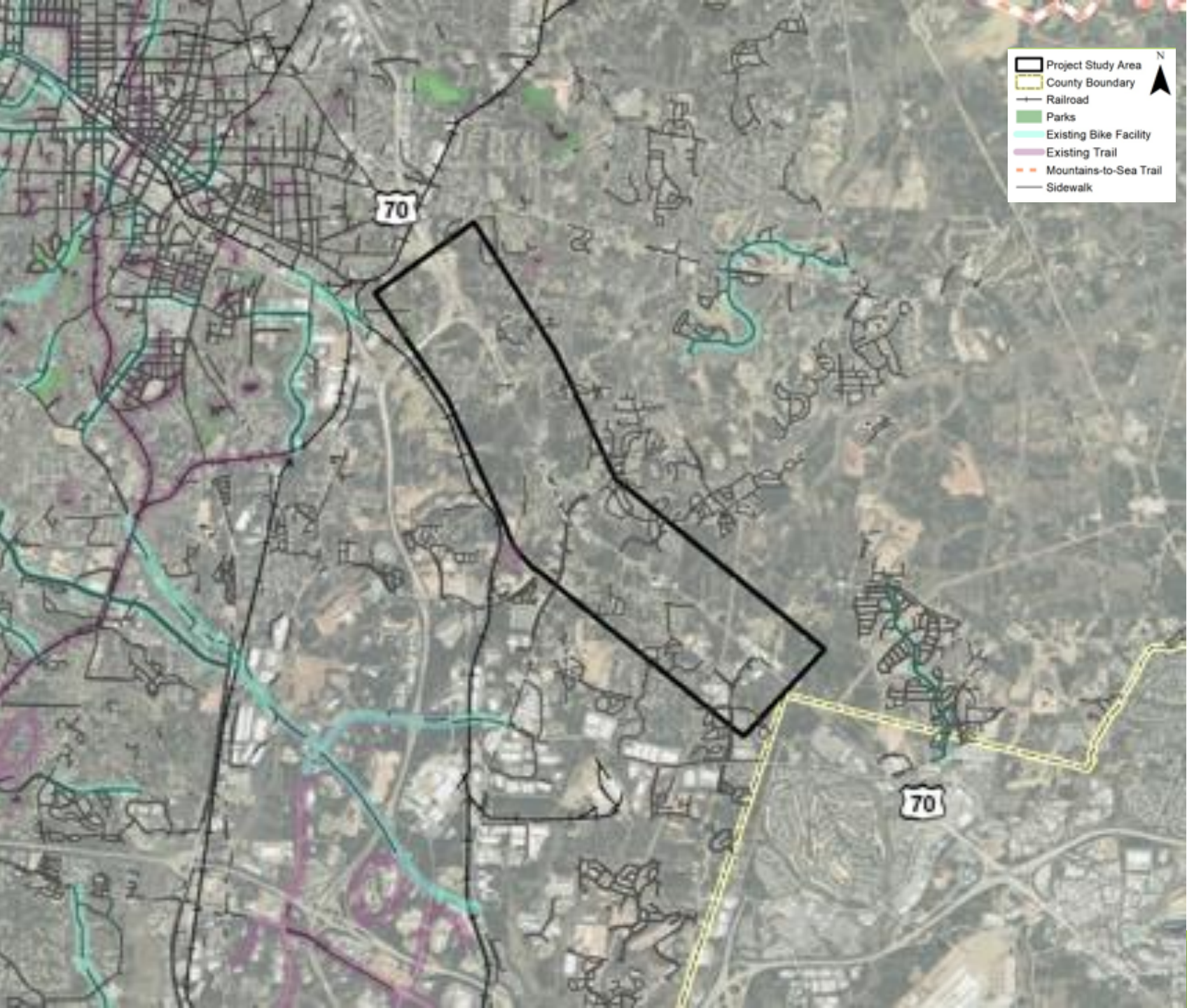
Support for a freeway option for the US 70 Corridor

*Aidilisms*

# Study Area



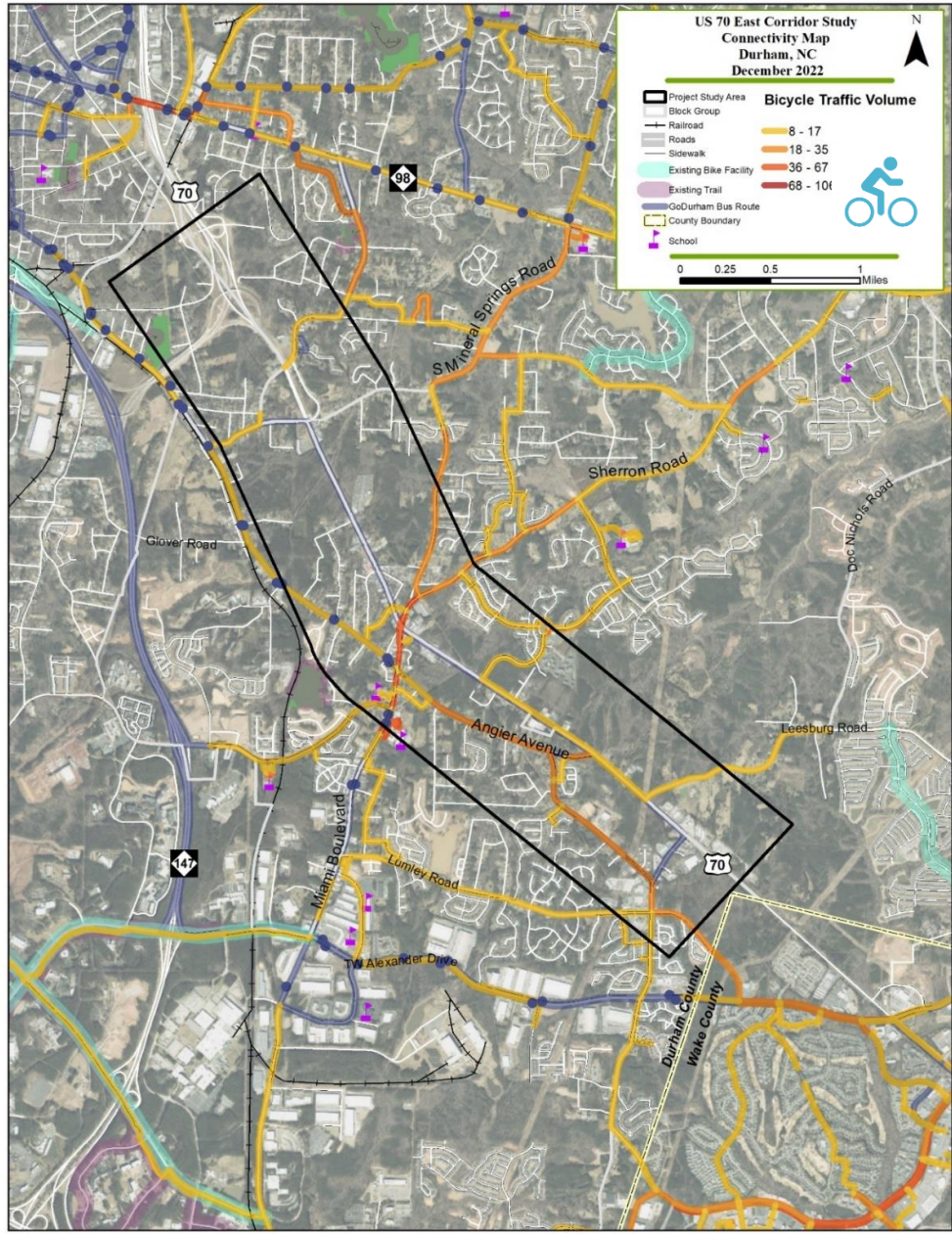
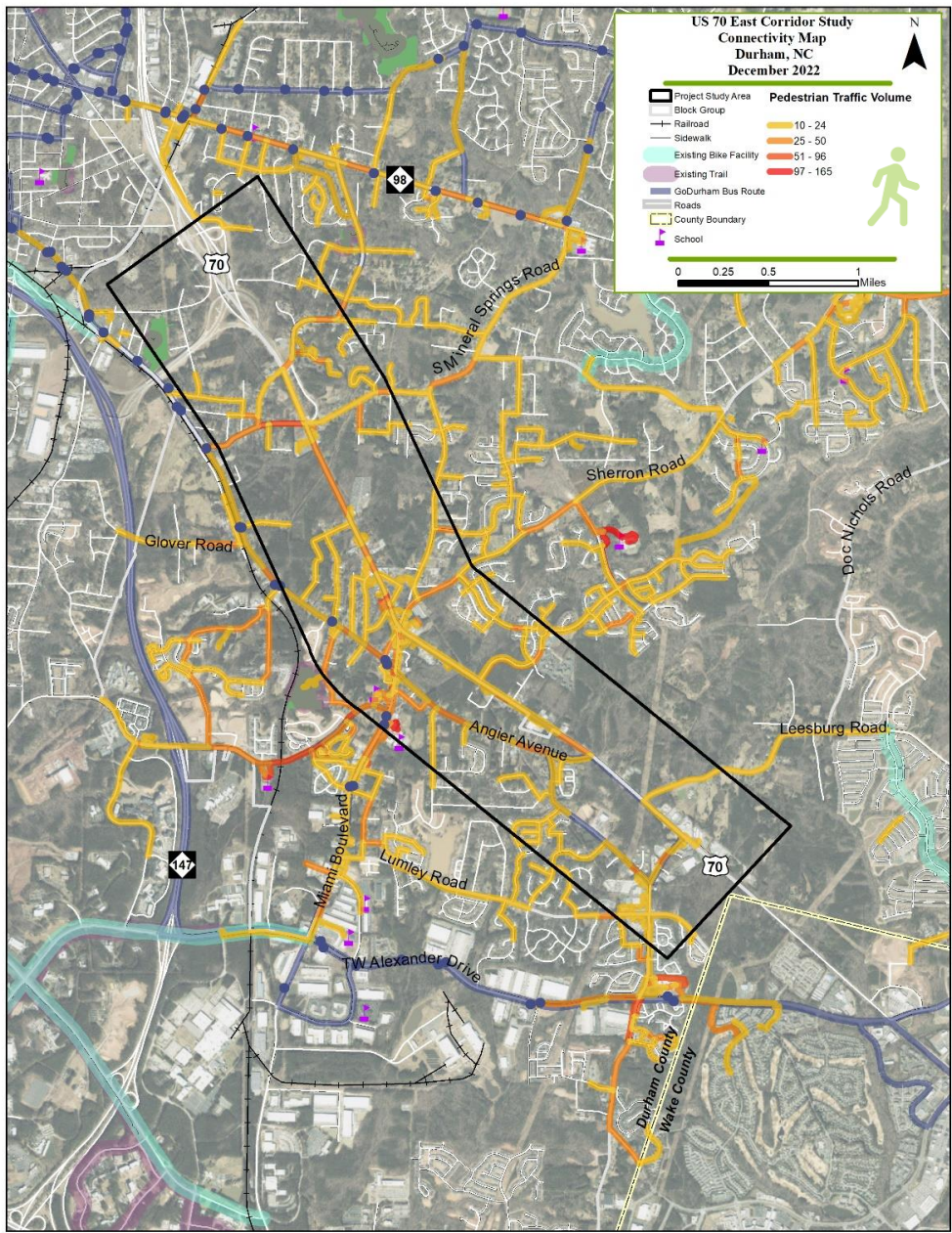
# Regional Bicycle and Pedestrian Network



Low volumes of bicyclists and pedestrians along and crossing over US 70 today

Bike/ped activities present on Angier Ave, US 70 at S. Miami Blvd/Sherron Road and Mineral Springs intersections

Future development will increase demand for bicycle and pedestrian facilities



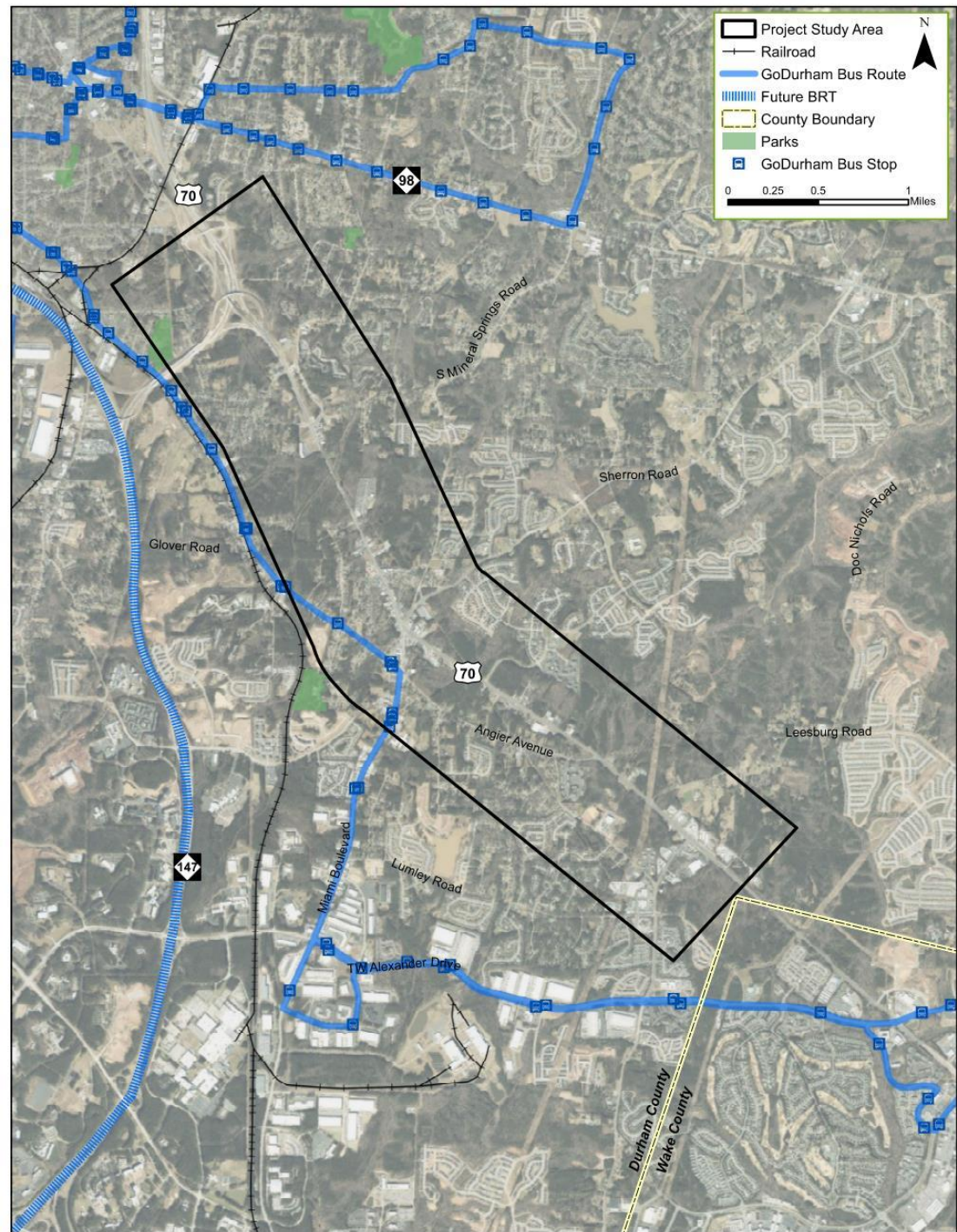


# Existing Transit Routes

No fixed route transit along US 70 today

US 70 identified as second tier for Bus Rapid Transit (FAST 2021)

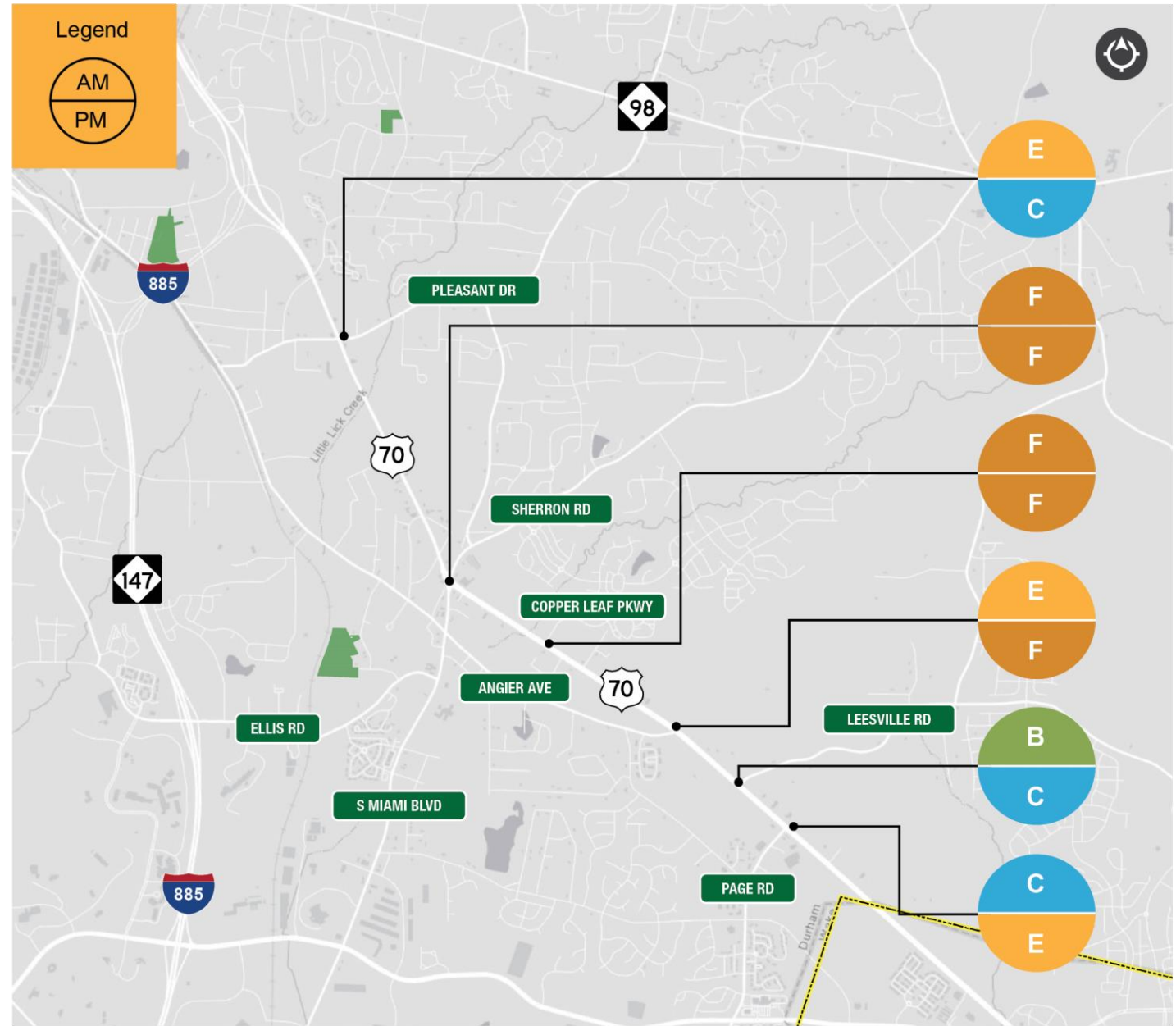
BRT not included in 2050 MTP



### Traffic Existing Conditions:

Level of Service at Intersections  
AM/PM Peak Hours

<b>ACCEPTABLE LOS</b>	<b>LOS A</b>	<ul style="list-style-type: none"> <li>• Light traffic</li> <li>• Free flow speeds</li> </ul>
	<b>LOS B</b>	<ul style="list-style-type: none"> <li>• Slightly increased traffic levels</li> <li>• Still free flow speeds</li> </ul>
	<b>LOS C</b>	<ul style="list-style-type: none"> <li>• Approaching moderate congestion levels</li> <li>• Speeds near free flow</li> </ul>
	<b>LOS D</b>	<ul style="list-style-type: none"> <li>• Speeds reduced</li> <li>• Lane changes restricted due to traffic</li> </ul>
<b>UNACCEPTABLE LOS</b>	<b>LOS E</b>	<ul style="list-style-type: none"> <li>• Congestion</li> <li>• Irregular traffic flow</li> </ul>
	<b>LOS F</b>	<ul style="list-style-type: none"> <li>• Road at capacity</li> <li>• Gridlock with frequent stops</li> </ul>



# Alternative Baseline Assumptions

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## **Alt 1 - 4 Lane Boulevard**

Innovative intersections to relieve congestion

No bridge structures at intersections

## **Alt 2 - 4 Lane Blvd with Parallel Road**

Innovative intersections to relieve congestion

Bridge Structures at Pleasant Drive and Future  
Glover Road Extension



## **Improve Walkability & Bikeability**

Incorporating Multi-use Paths

Providing bridged opportunities to cross US 70

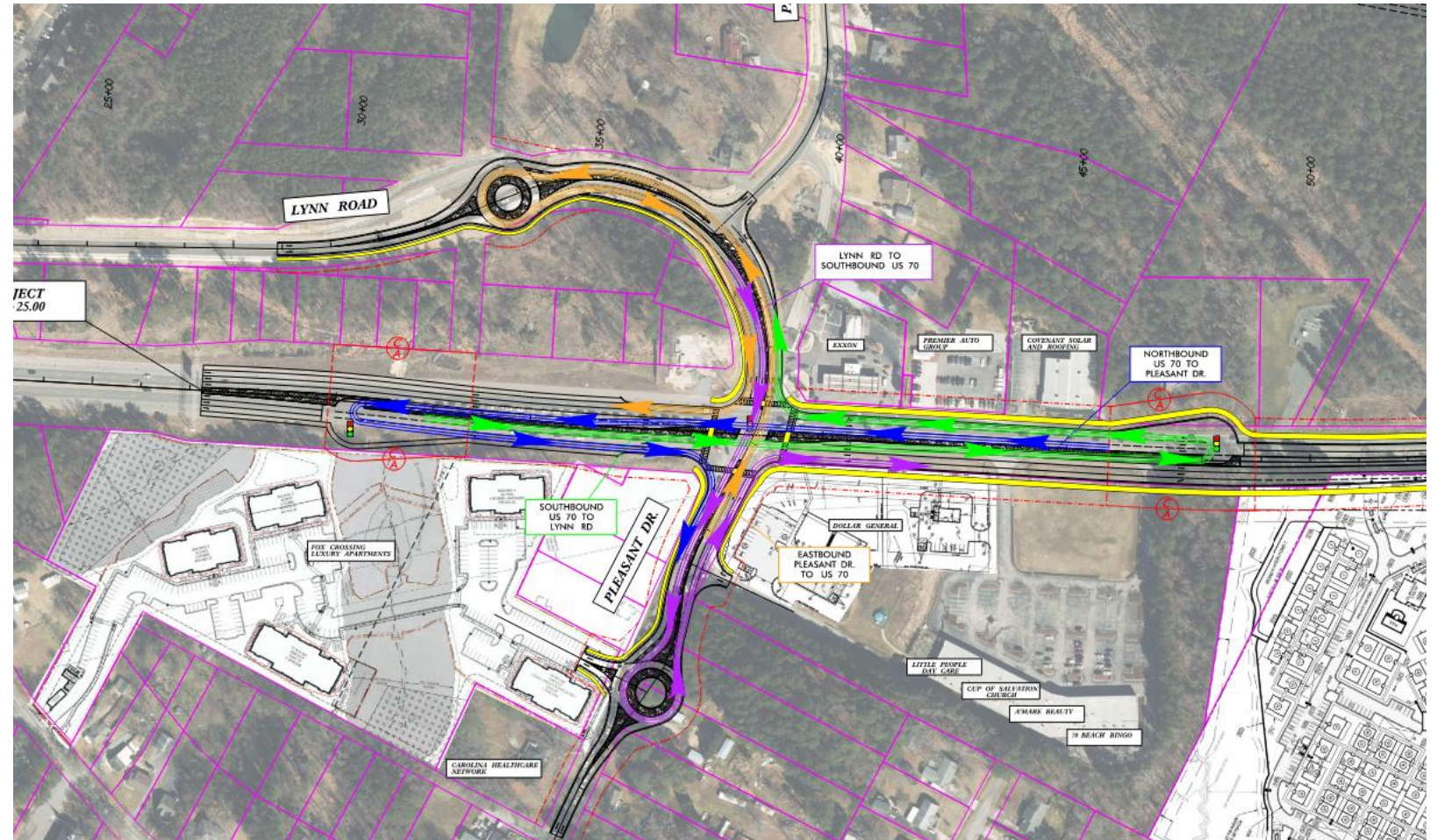
# Median U-Turns

Eliminates left-turn movements and reduces delay with shorter wait times for vehicles traveling along US 70

Cost effective in comparison to adding additional lanes to increase capacity

Improves vehicular safety by reducing conflict points

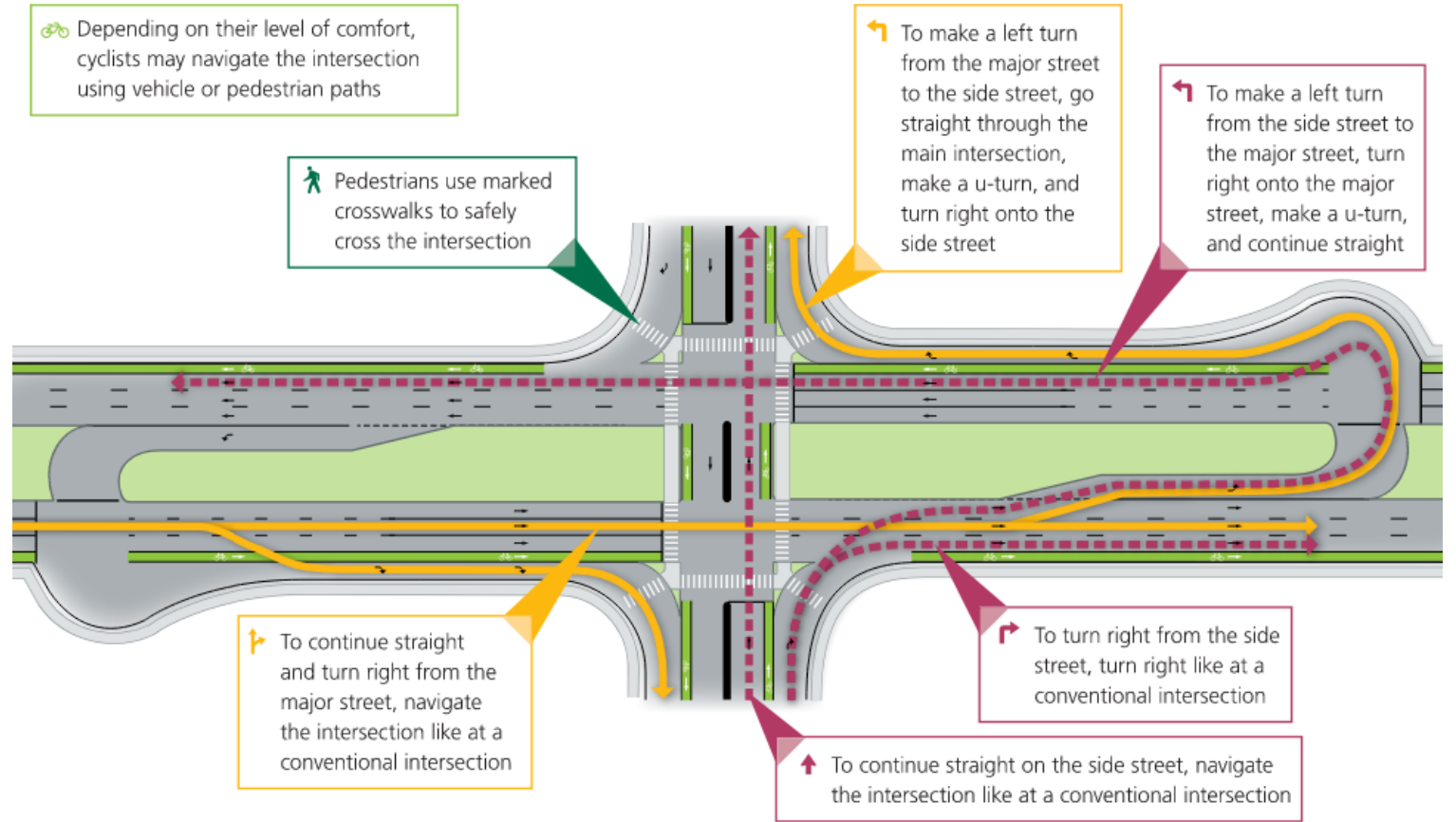
## US 70 at Pleasant Drive Intersection – Alternative 1



# Median U-Turns

To make a left turn from US 70 to the side street, vehicles would go through the intersection, and make a U-turn before turning right into the side streets

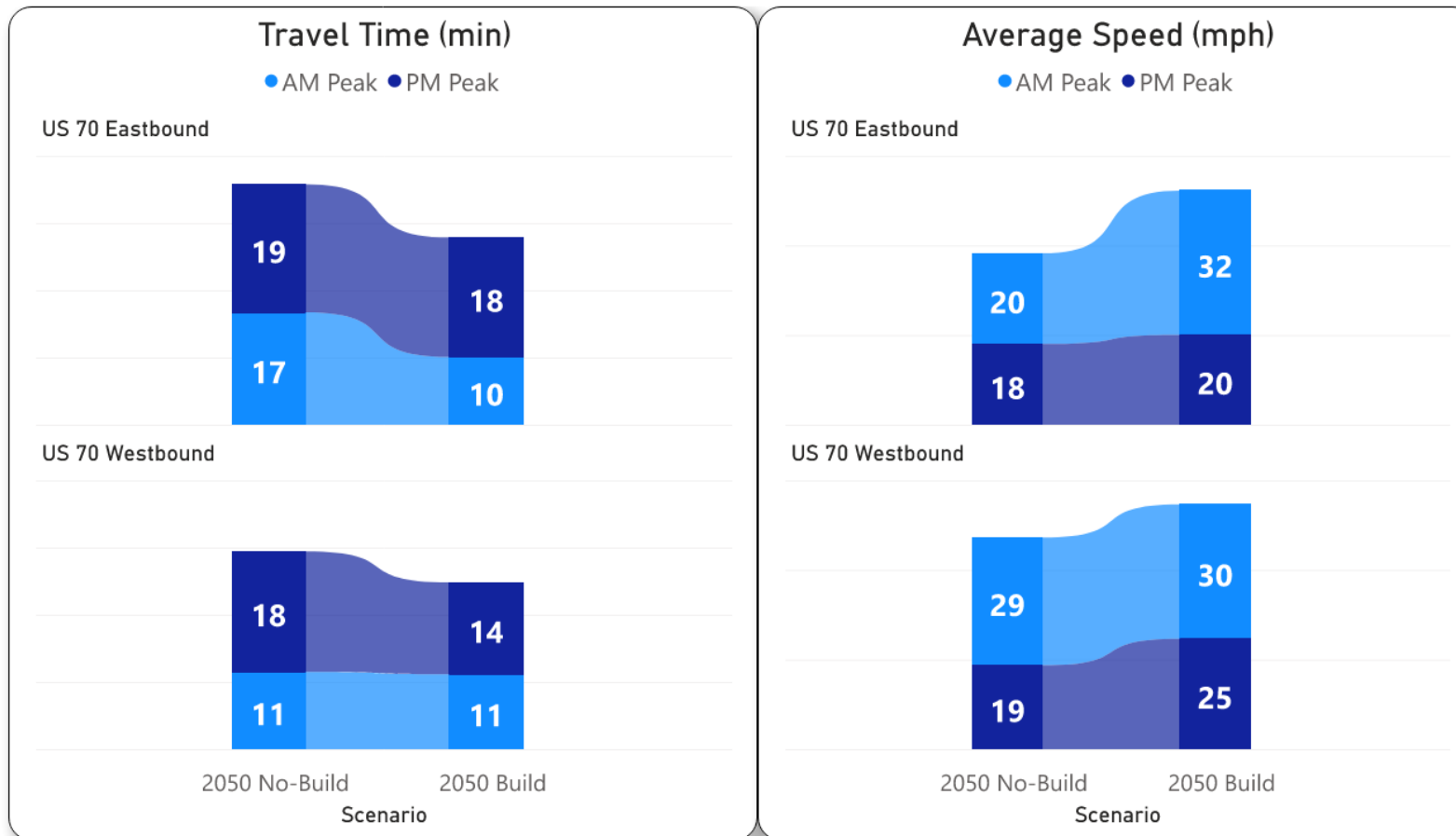
Eliminated left turns make it safer for both bicyclists and pedestrians to cross US 70



NOT TO SCALE

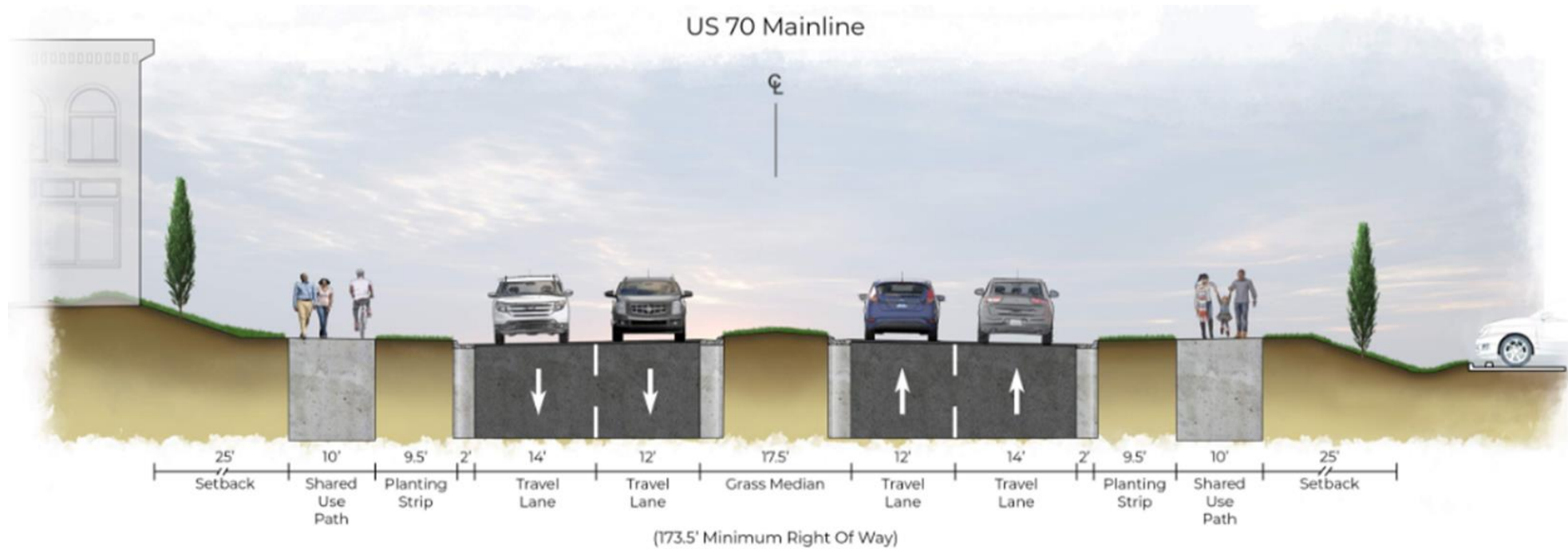
Note: For simplicity, only two directions of traffic are shown. Opposing traffic follows similar routes.

# Travel Time Savings – Alternative 1



Innovative intersection improvements yielded shorter travel times and higher average speeds along US 70

# Alternative 1 & 2 - US 70 Mainline



Existing Right-of-Way Varies:  
180' From TW Alexander to Sherron Rd.  
100' From Sherron Rd. to Pleasant Dr.  
215' From Pleasant Dr. to I-885

# Alternative 2 - 4 Lane Parallel Road Concept





# OVERVIEW OF CONCEPTS – WESTON MURPHY, STV

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# Performance Metrics – Promote & Expand Multimodal & Affordable Choices

DCHC MPO Goal	Focus	Performance Measure
Promote Safety, Health, and Well-Being	Walkability	Potential reduction factor for pedestrian involved crashes and exposure
	<u>Bikeability</u>	Potential bicycle-motorist involved crashes and exposure
Promote and Expand Multimodal & Affordable Choices	Walkability	Pedestrian experience & comfort
	Transit	Sidewalks/Shared Use Paths
Connect People & Places	Walkability	Pedestrian amenities along US 70 Y-lines
	<u>Bikeability</u>	Buffer protection from traffic, and bike network connectivity



# Performance Metrics – Promote & Expand Multimodal & Affordable Choices

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DCHC MPO Goal	Focus	Performance Measure
Improve Infrastructure Condition & Resilience	Transit	Available ROW for Bus Stops/BRT Platforms
Protect the Human and Natural Environment and Minimize Climate Change	Greenspace	Impervious area
Manage Congestion & System Reliability	Vehicular Operations	Delay



<i>DCHCMPO Focus</i>	Walkability		
	Safety	Connectivity	Pedestrian Comfort
Metrics	Corridor assessment based on number of innovative intersections and signal enhancements	# Proposed crossings /linear feet of additional sidewalks	Buffer width (feet)
Alternative 1 4 Lane Blvd Section	Lower	Less	Less
Alternative 2 4 Lane Blvd Section with Parallel Roadway	<b>Higher</b>	<b>More</b>	<b>More</b>

# Comparative Assessment Walkability

## Alternative 1:

9 Median U-Turns on US 70 with pedestrian signal enhancements  
1475 feet of new sidewalk/multiuse path

## Alternative 2:

6 Median U-Turns on US 70 with pedestrian signal enhancements  
3170 feet of new sidewalk/multiuse path  
Parallel roads would allow for sidewalks and pedestrians to be on lower volume/lower speed roads

<i>DCHCMPO Focus</i>	Bikeability		
	Safety	Connectivity	Bicyclists Comfort
Metrics	Corridor assessment based on number of innovative intersections and signal enhancements	# Proposed crossings /linear feet of additional trails and MUP	Buffer width (feet)
Alternative 1 4 Lane Blvd Section	Lower	Less	Less
Alternative 2 4 Lane Blvd Section with Parallel Roadway	<b>Higher</b>	<b>More</b>	<b>More</b>

# Comparative Assessment Bikeability

## Alternative 1:

9 Median U-Turns on US 70 with pedestrian signal enhancements  
1475 feet of new sidewalk/multiuse path

## Alternative 2:

6 Median U-Turns on US 70 with pedestrian signal enhancements  
3170 feet of new sidewalk/multiuse path  
Parallel roads would allow for bicyclists to be on lower volume/lower speed roads

# Comparative Assessment Transit

**Alternative 1 & 2:**  
 Can accommodate BRT in mixed traffic on US 70  
 Will not preclude dedicated BRT lanes and queue jumping

**Alternative 2:**  
 Opportunities for future transit stops on parallel roads

<i>DCHCMPO Focus</i>	Transit
Metrics	Design opportunities for bus/BRT
	Accommodations for future Bus Service /BRT
Alternative 1 4 Lane Blvd Section	Less
Alternative 2 4 Lane Blvd Section with Parallel Roadway	<b>More</b>

# Comparative Assessment Vehicular Operations

<i>DCHCMPO Focus</i>	Vehicular Operations		
Metrics	Intersection Delay	Access Management	Overall Travel Time Savings (Transmodeler)
	Overall assessment based on analysis of intersection delays for AM/PM peak hour	Change in accessibility Reduction of conflict points	Travel time (minutes)
Alternative 1 4 Lane Blvd Section	Fewer traffic operations benefits	Maintain existing access along US 70	Improved travel time
Alternative 2 4 Lane Blvd Section with Parallel Roadway	<b>More traffic operations benefits</b>	<b>Relocation of existing driveways reduces conflict points along US 70</b>	<b>Further improves travel time compared to 4 lane Boulevard Alternative</b>

## Alternative 1:

Some intersections operate at LOS E/F in 2050  
 Most existing businesses maintain access off US 70  
 Peak travel times along corridor improve between 4-35%

## Alternative 2:

Local trips diverted to parallel roads will improve traffic operations along US 70  
 50 driveways to be relocated to parallel roads  
 Businesses will enjoy bidirection access off parallel roads

<i>DCHCMPO Focus</i>	Greenspace
Metrics	% of Impervious Area
	Change in Impervious Surface Area (acres)
Alternative 1 4 Lane Blvd Section	<b>Less increase in impervious surface area</b>
Alternative 2 4 Lane Blvd Section with Parallel Roadway	<b>More increase in impervious surface area</b>

# Comparative Assessment Greenspace

**Alternative 1:**  
67.2 acres increase of impervious surface  
(+33% from existing conditions)

**Alternative 2:**  
87.2 acres increase of impervious surface  
(+85% from existing conditions)



# Alternative Impact Matrix

Impacts	Streams (feet)	Wetlands (acres)	Number of Whole Takes	Number of Partial Takes	Residential Properties	Businesses	Vacant Property (# of parcels)	Parking (# spaces)	ROW Footprint (acres)	Impervious Surface Area (acres)
<b>4 Lane Blvd Section</b>	<b>507</b>	<b>1.8</b>	<b>29</b>	<b>124</b>	<b>23</b>	<b>72</b>	<b>58</b>	<b>336</b>	<b>25.6</b>	<b>62.7</b>
<b>4 Lane Blvd Section with Parallel Roadway</b>	1233	5.9	76	192	81	94	93	678	104.6	87.2

Alternative 1 – 4 Lane Boulevard  
 Least Impactful Alternative to Natural and Human Environment  
 Less Costly

Alternative 2 – 4 Lane Boulevard with Parallel Roads  
 Better bicyclist /pedestrian benefits  
 More Opportunities for Future Access to Transit  
 Higher Vehicular Travel Time Savings Along US 70

# Q&A

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# Desired Feedback

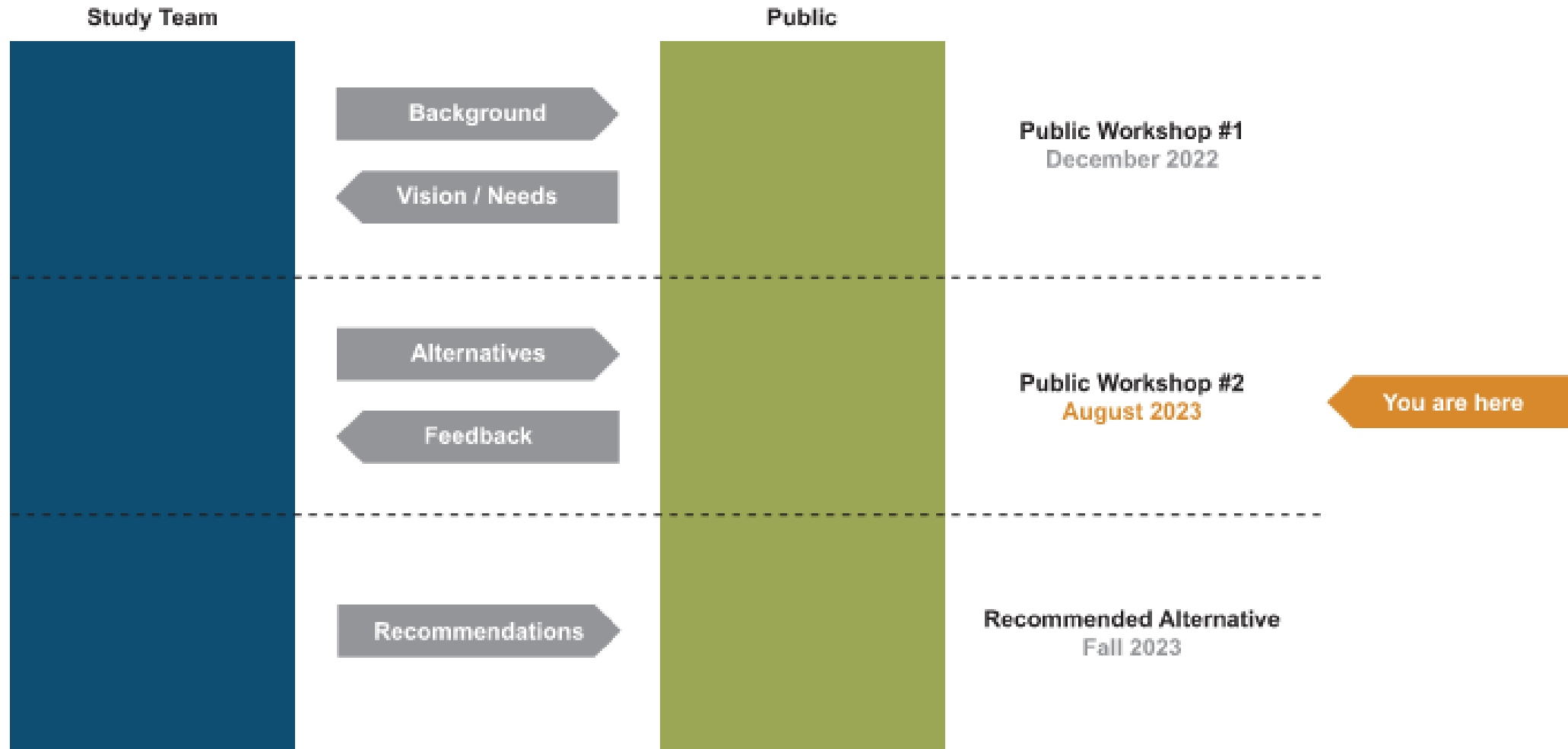
Please provide comments within the online survey:

[US 70 East Corridor Study / Estudio del Corredor Este de la US 70 \(google.com\)](#)

The team is seeking feedback on trail/ greenway trail connection options crossing US 70 which can be incorporated into either alternative

Preferred alternative (draft plan) can take components from both alternatives

# Study Process



Thank You for  
Participating!