Bryan City Council Workshop
November 9, 2021

BS 6-R (Texas Avenue) Improvements

From SH21 (north to Old Hearne Road) to FM 60 (University Drive)

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BCS MPO
BRYAN/COLLEGE STATION METROPOLITAN PLANNING ORGANIZATION

Texas Department of Transportation

Project Overview

BS 6-R (Texas Avenue) Improvements Project

Limits:
From: SH 21 (just north to Old Hearne Road)
To: FM 60 (University Drive)

Project Length:
Approximately 5 miles

Location:
Brazos County (Bryan/College Station)

Construction Sequence:
Phase 1 – Old Hearne to 15th St.
Phase 2a – Raised Medians
Phase 2b – Shared-Use Paths & Sidewalks

History

BS 6-R (Texas Avenue) Improvements Project

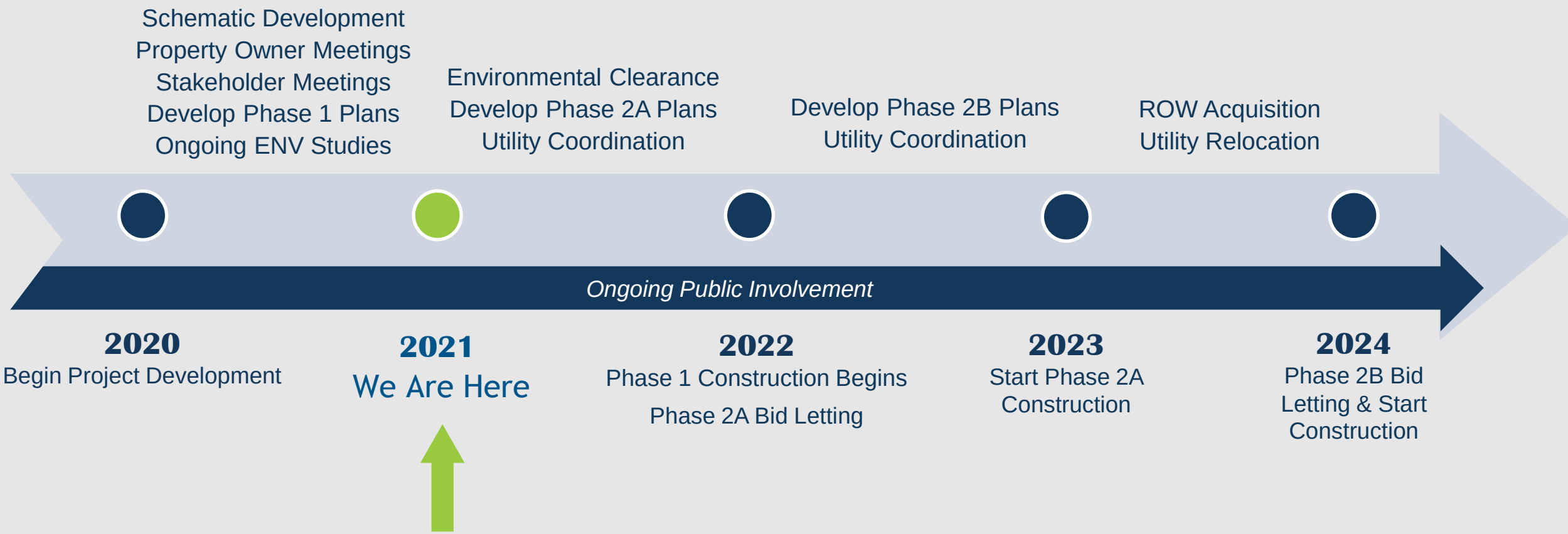
Bryan CIP – Council Resolution 3630:
Added Design Funding to FY 2020 in 2015.

Leverage MPO/TXDOT Construction Funds:
Highly Ranked MPO Project - #4 in the 2045 MTP
Initial Estimate of Funding ~$13,000,000
Current Estimate of Funding ~$30,000,000

City Contract with Lockwood Andrews Newnam (LAN):
January 29, 2020 - $2,231,146.16
Amended Current Total - $2,317,297.16
Spent to Date - $1,022,339.00

Upcoming Public Meeting

Project Development Timeline



Council Workshop / Upcoming Public Meeting

- Share Preliminary Design
- Gather Public Feedback

Needs and Purpose

Project Needs
What are The Issues?

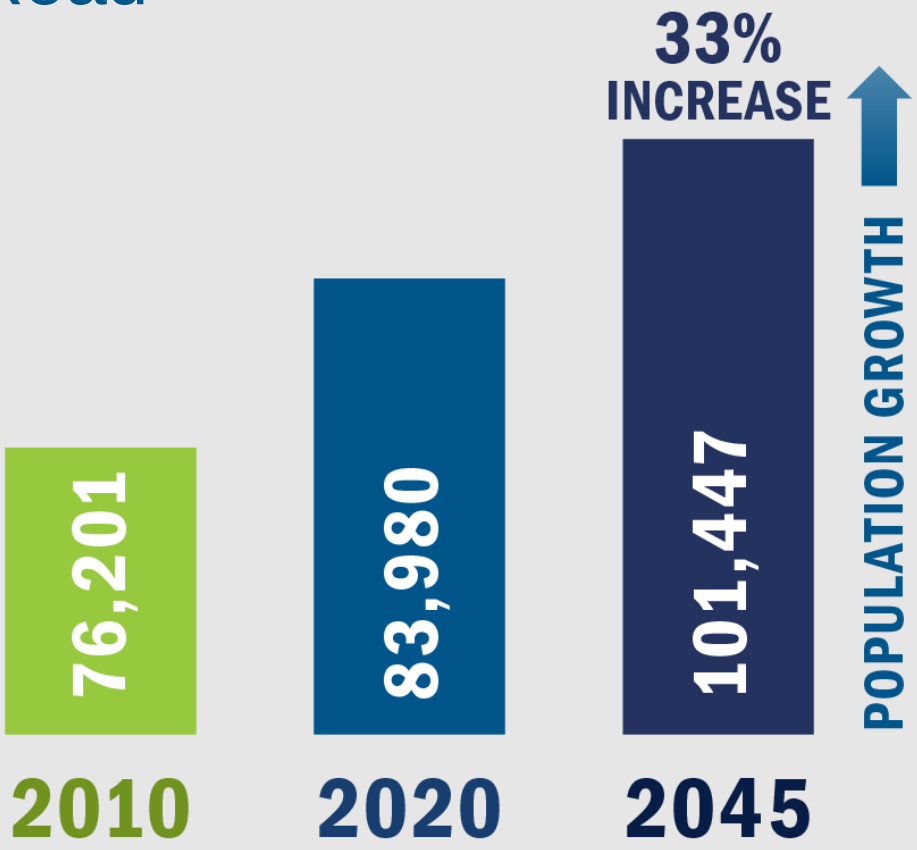
- Anticipated growth in population and traffic volumes
- Increased congestion
- Safety concerns
- Limited bicycle & pedestrian accommodations

Project Purpose
What Are We Trying To Do?

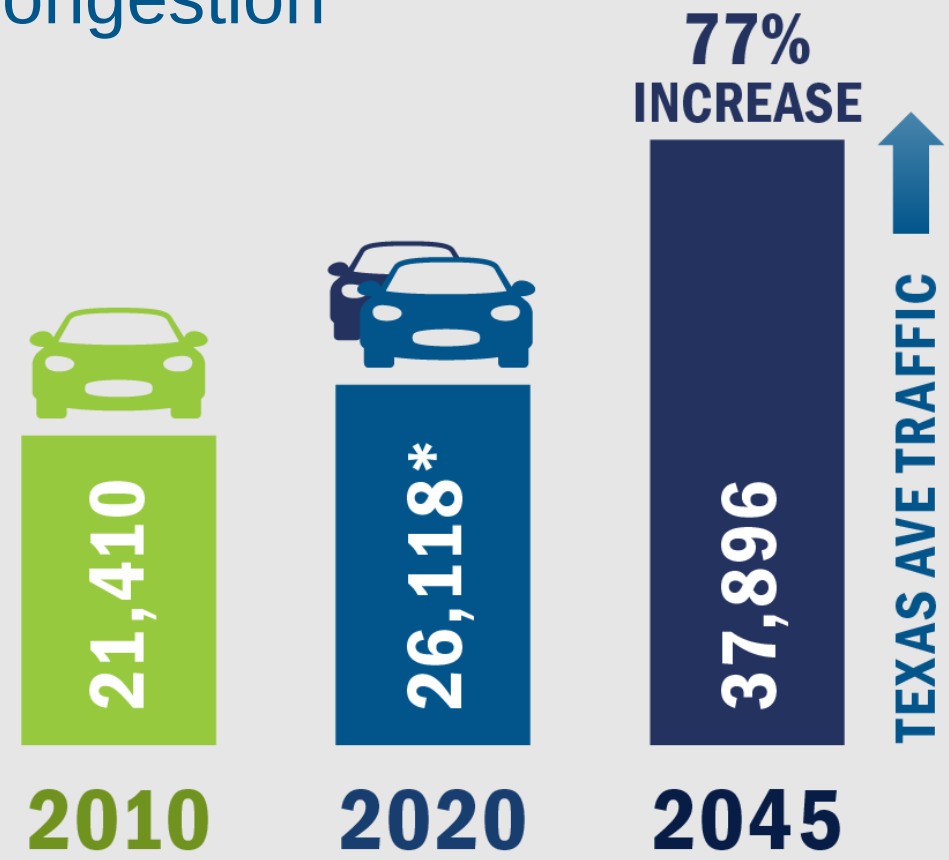
- Enhance safety
- Reduce congestion
- Improve mobility
- Provide pedestrian and bicycle accommodations

Projected Population Growth

Growing Population Means More Travelers on the Road



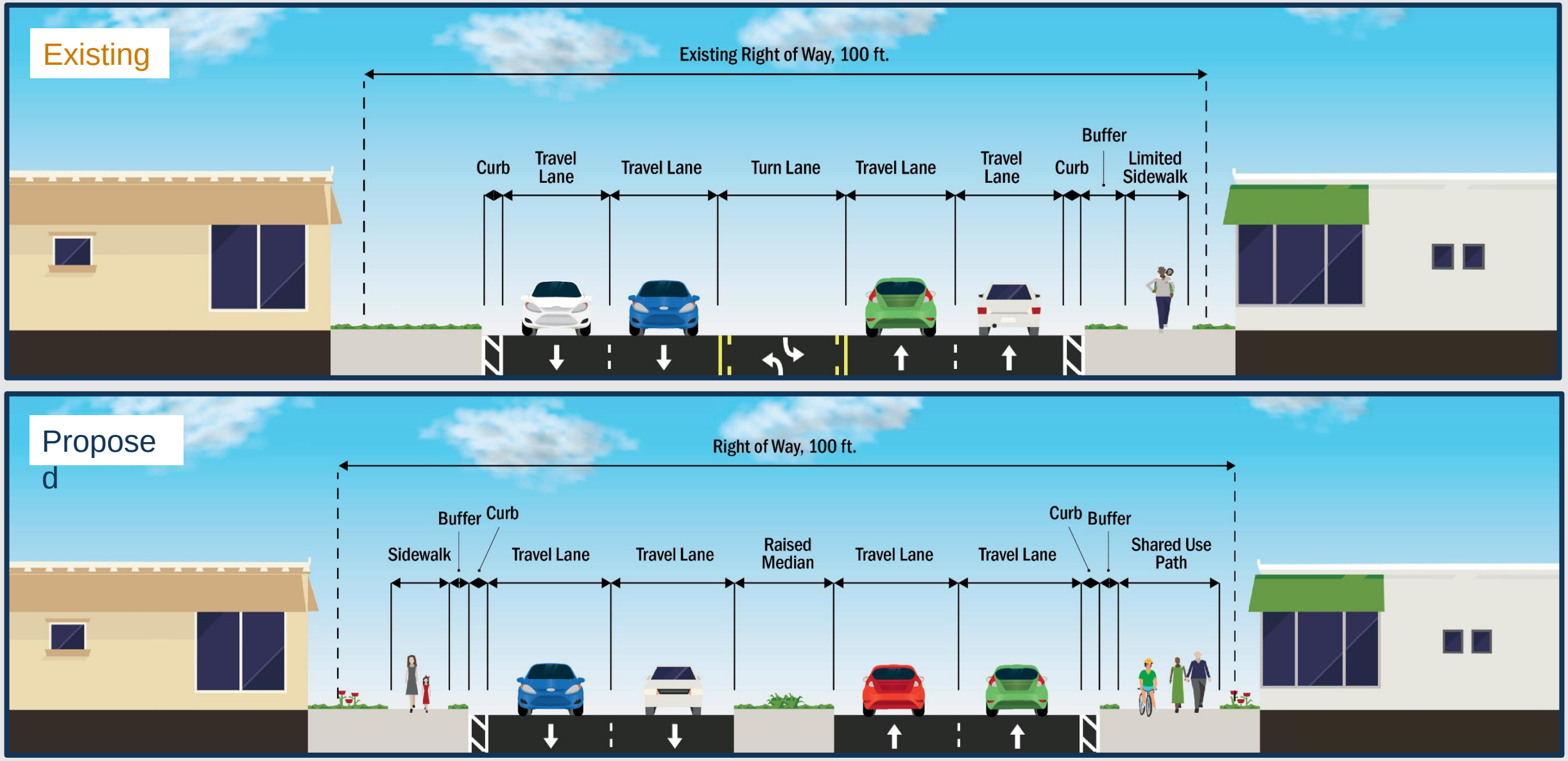
More Vehicles on Texas Avenue Means More Congestion



* 2020 data includes COVID adjustment

Source: Census

Proposed Improvements – Roadway Configuration



Texas A&M Transportation Institute, RELLIS Campus, Bryan, TX

Debbie Albert, Associate Research Engineer

AKA “The New and Improved Tim Lomax”

Access Enhancement Projects

- Medians
- Driveway/street spacing
- Signal spacing
- Pedestrian/bicycle elements
- Street system
- Turn lanes

We can't build our way out of congestion.

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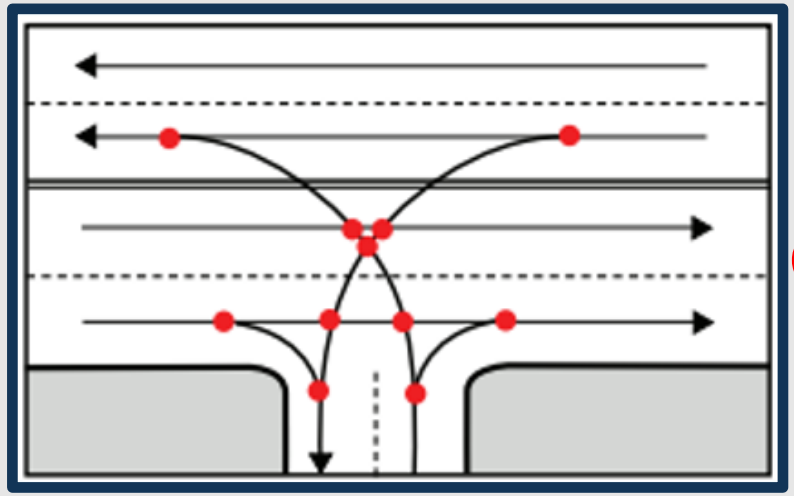
Safety: It's All About Reducing Crashes

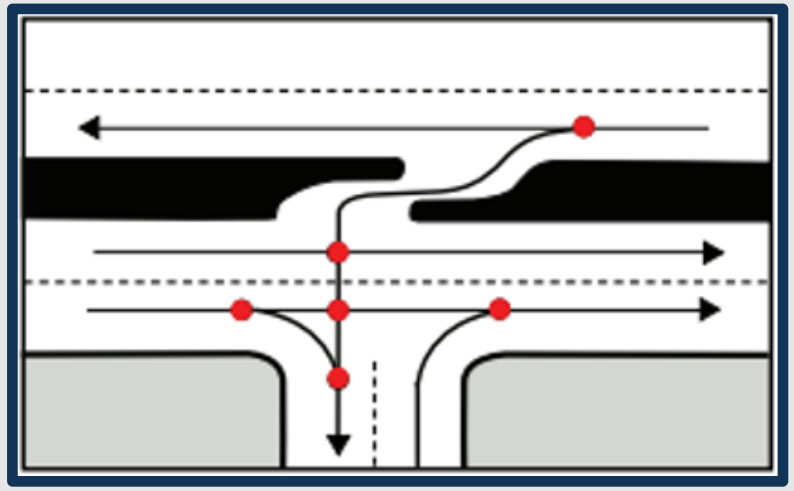
- Left turns crashes are the most serious crashes
- Converting two-way left turn lane to raised medians reduces vehicle (27%) and pedestrian crashes (46%)[1]
- Fewer conflict points = fewer crashes

Unlimited Access



More Conflicts

Directional Access



Fewer Conflicts

Source: Adapted from the Florida Department of Transportation

[1] Bowman, B.L., & Vecellio, R. L., Maio, J., 1995. Vehicle and Pedestrian Accident Models for Median Locations. Journal of Transportation Engineering, Vol. 121, Issue 6.

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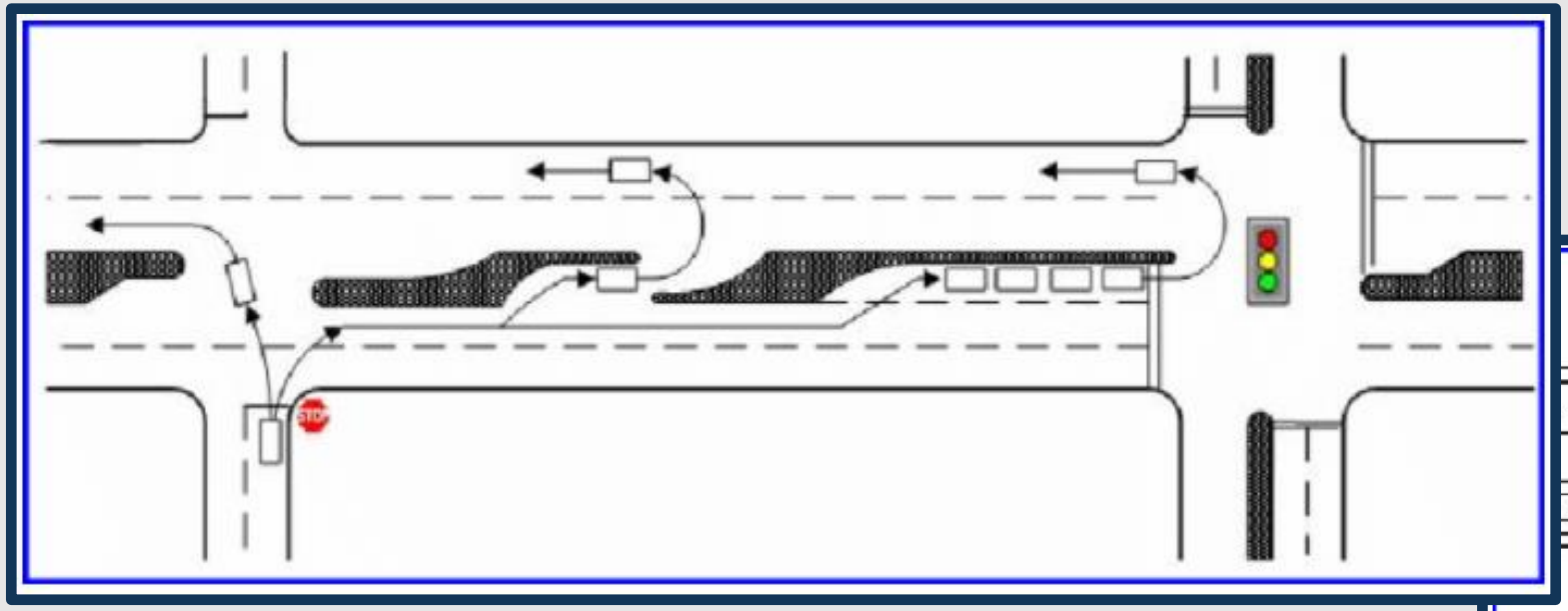
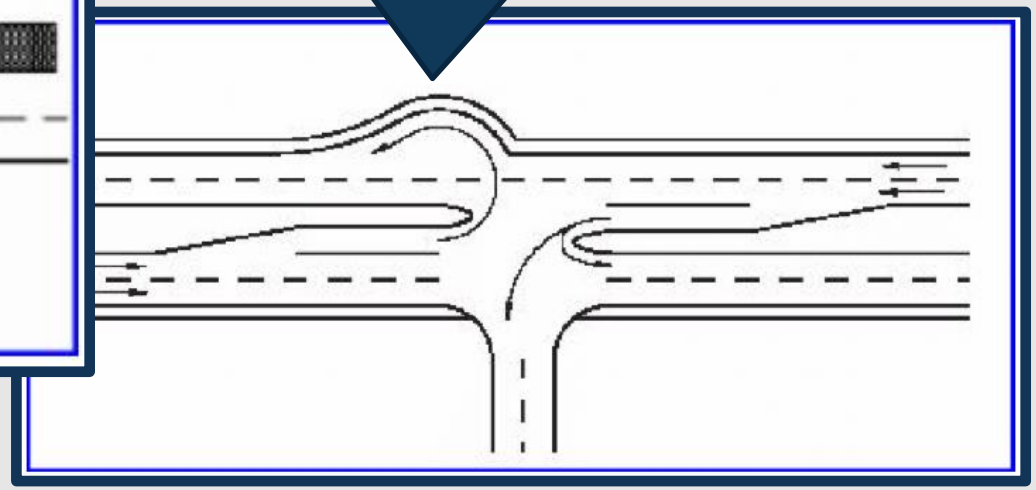
U-Turns: Safety and Efficiency

- Generally improved safety and mobility
- Need to look at specific conditions to determine the best fit



Wider pavement area for U-Turn movements - called a “Loon.”



Source: The Journal of Engineering, April 2015

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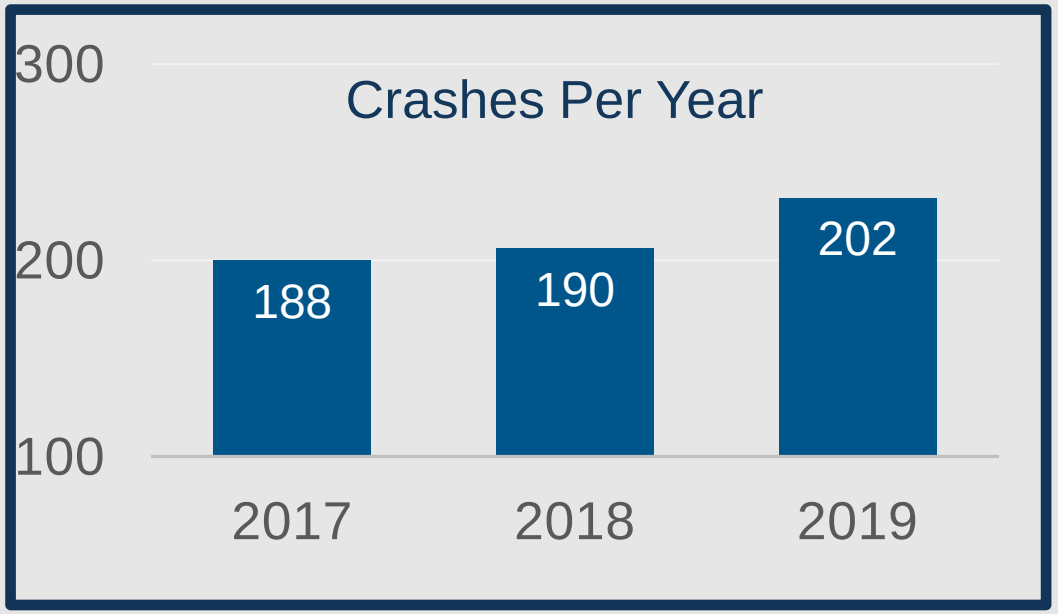
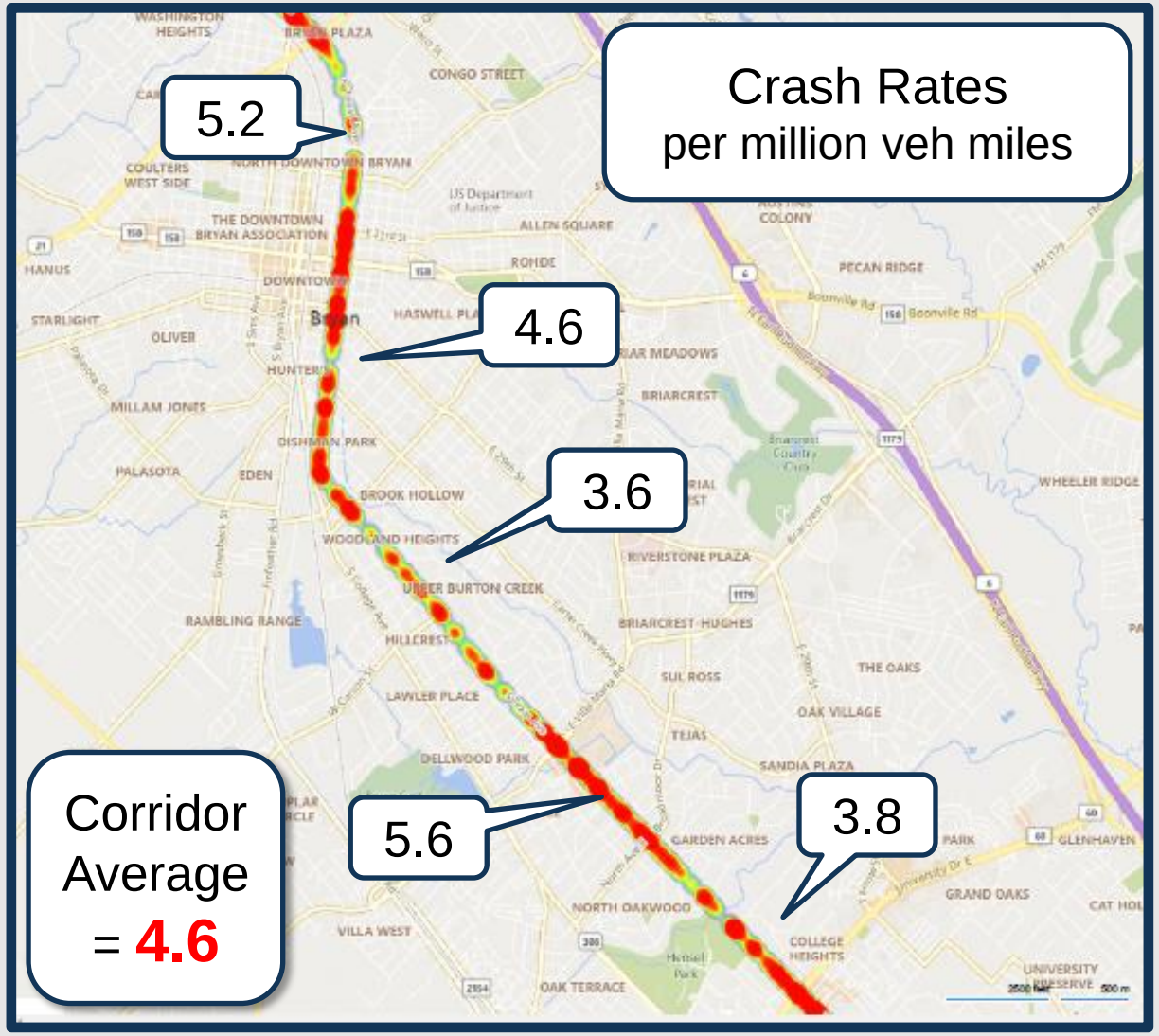
Crash Data and Roadway Usage

Crash Data – 2017 to 2019

- 580 crashes, five fatalities
- Crashes distributed throughout the corridor
- Crash rate is nearly 40% higher than the Statewide Average for Similar Roads



Source: TxDOT Crash Records Information System (CRIS), 2021



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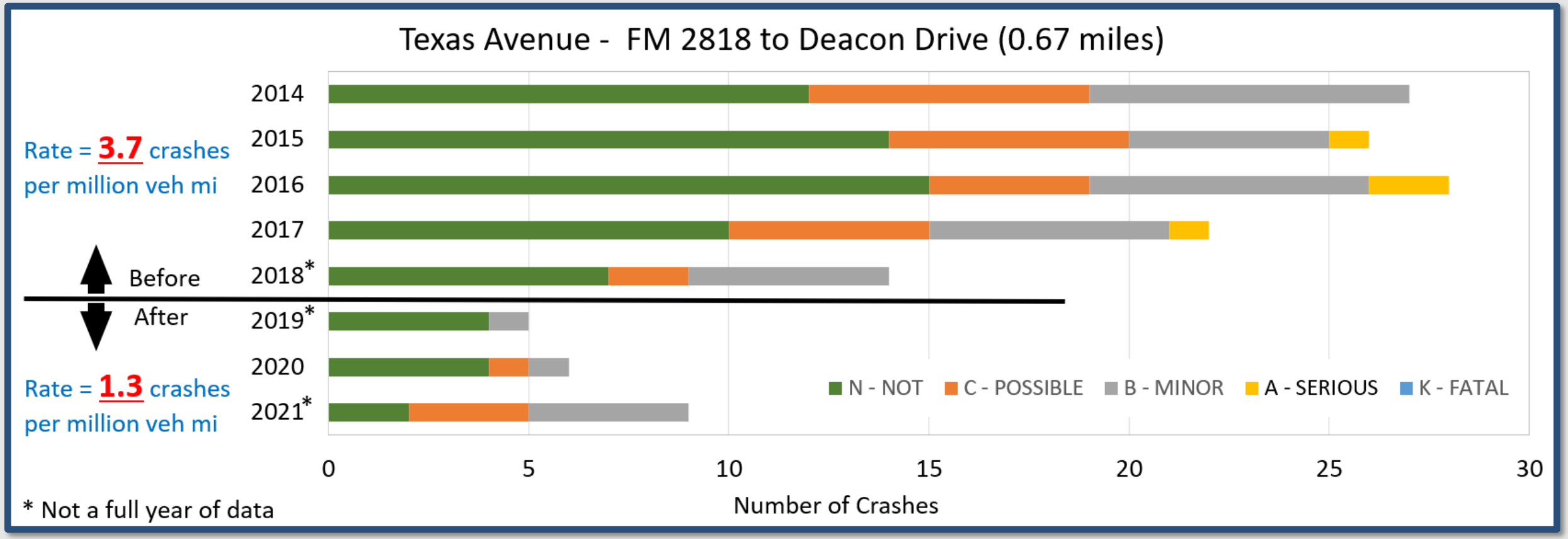
Median Project Crash Statistics



Source: TxDOT Crash Records Information System (CRIS), 2021

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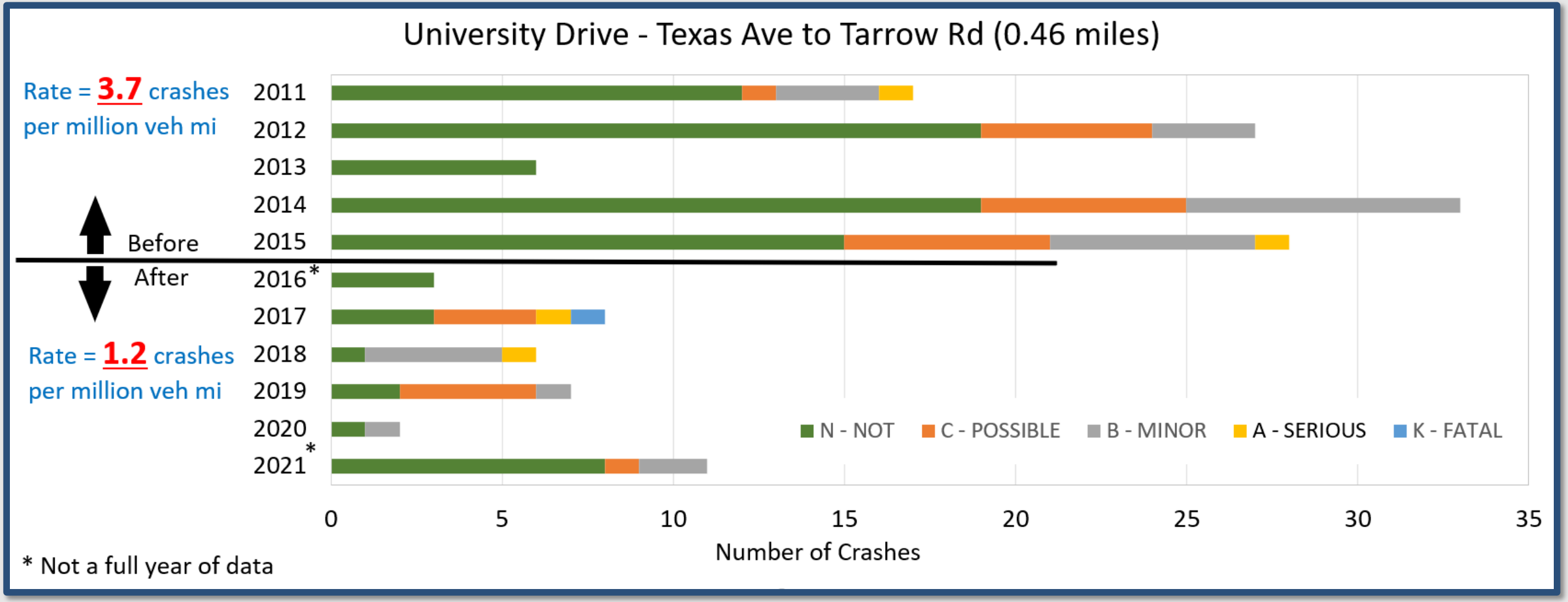
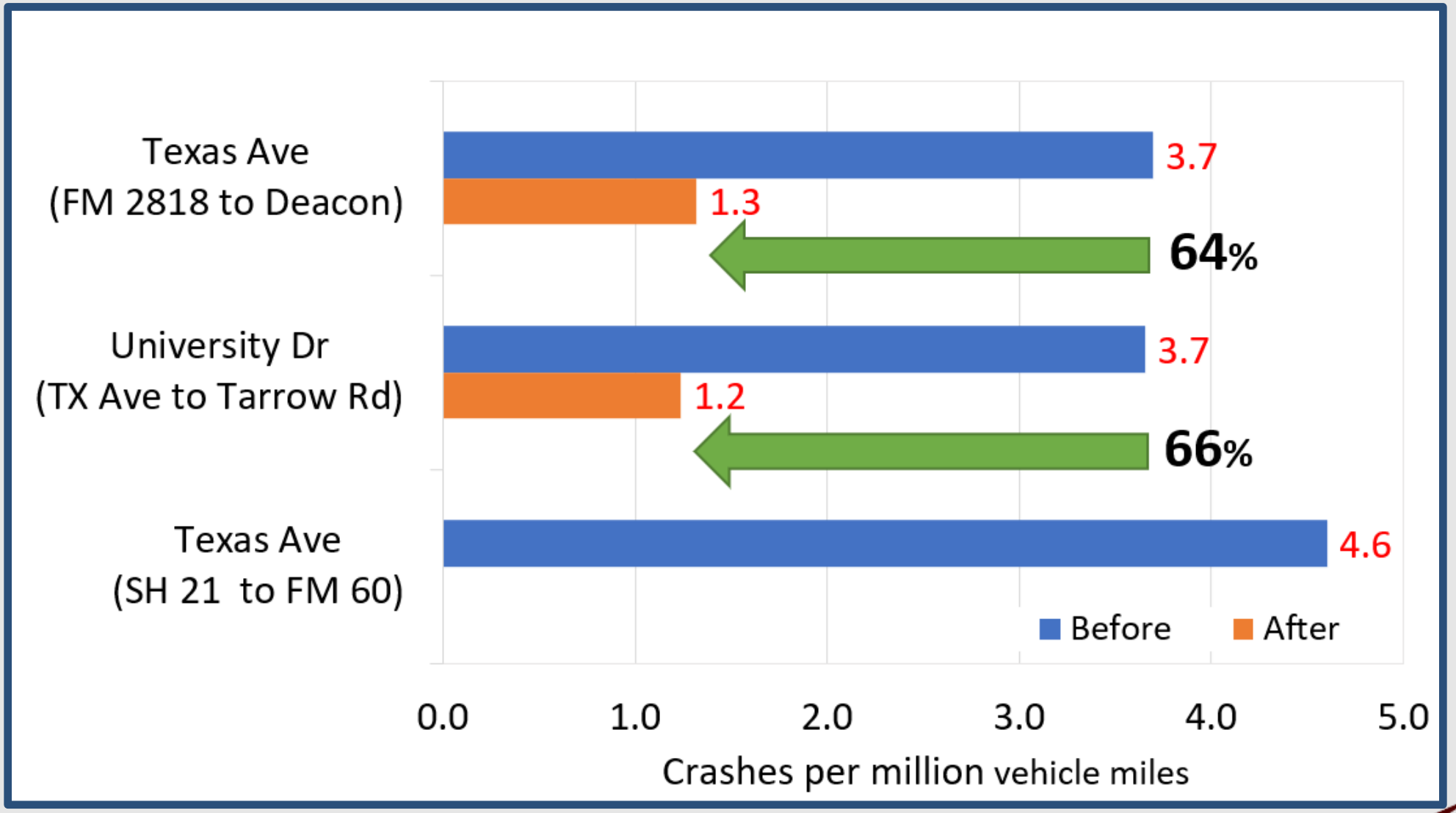
Median Project Crash Statistics



Source: TxDOT Crash Records Information System (CRIS), 2021

Local Safety Experience



Source: TxDOT Crash Records Information System (CRIS), 2021

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Livability: Better Use of the System We Have

- Safer streets
  - Lower insurance rates
  - Fewer medical bills
  - Less lost work time
- Makes the street look nicer
- Promotes healthy living
- Improved quality of life

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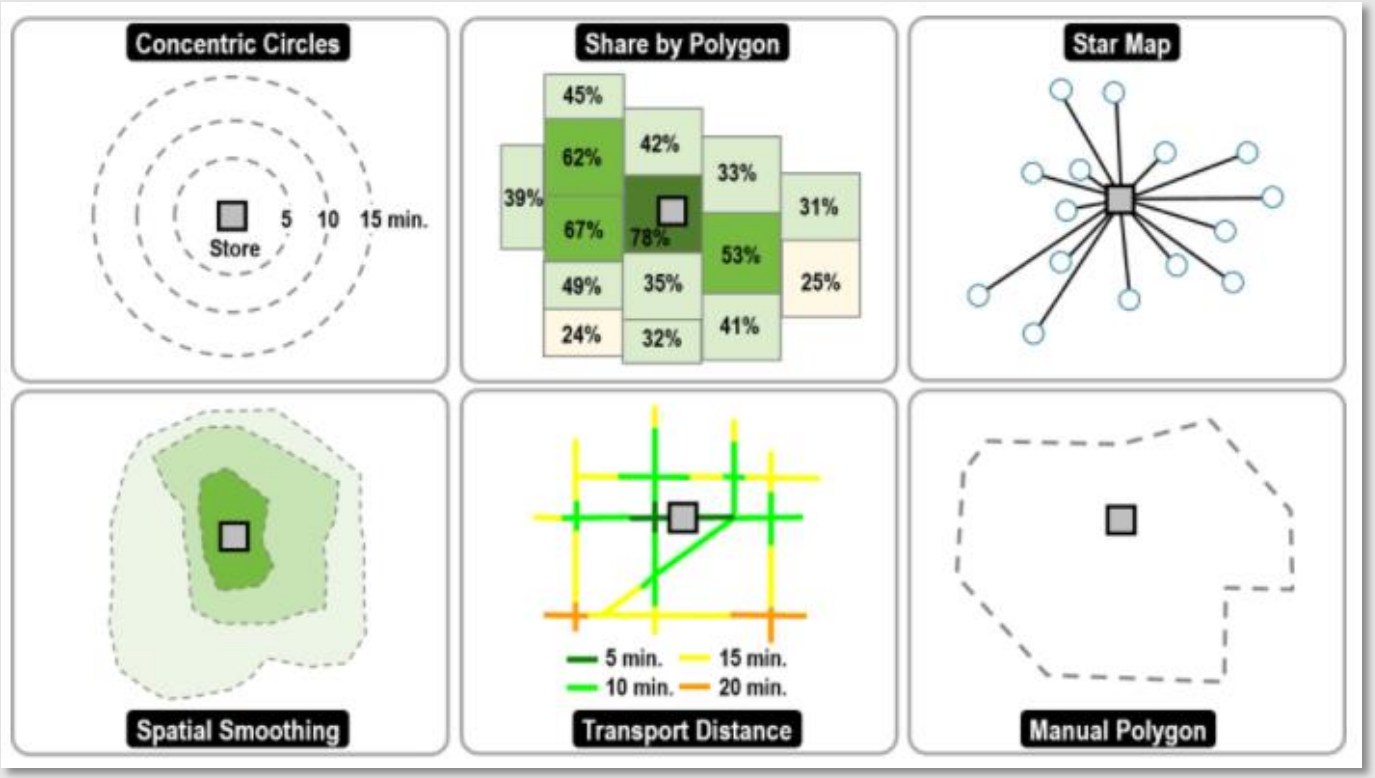
Business Effects: More Reliable Travel (Reduced Delay)

- Improved Safety and more efficient access
- Traffic backups play into shipping costs and reliability
- Texas experience
  - Customer, sales tax, property value effects differ based on business type
  - Construction is critical time period



Source: The Geography of Transport Systems

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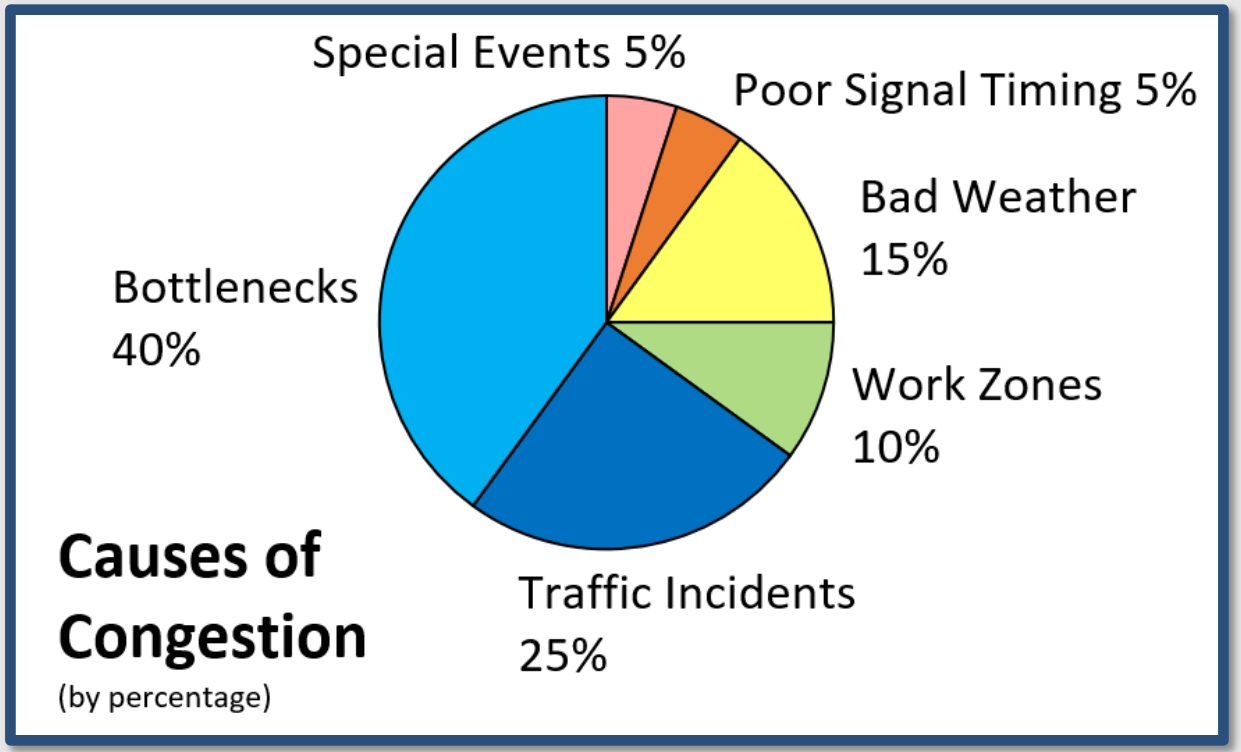
Mobility: Less Congestion, Improved Safety, Time and Dollars

- Less planning around congestion
  - Reduced crashes → improved travel time reliability
- Pedestrian and bicycle effects



Source: Federal Highway Administration, November 2020.

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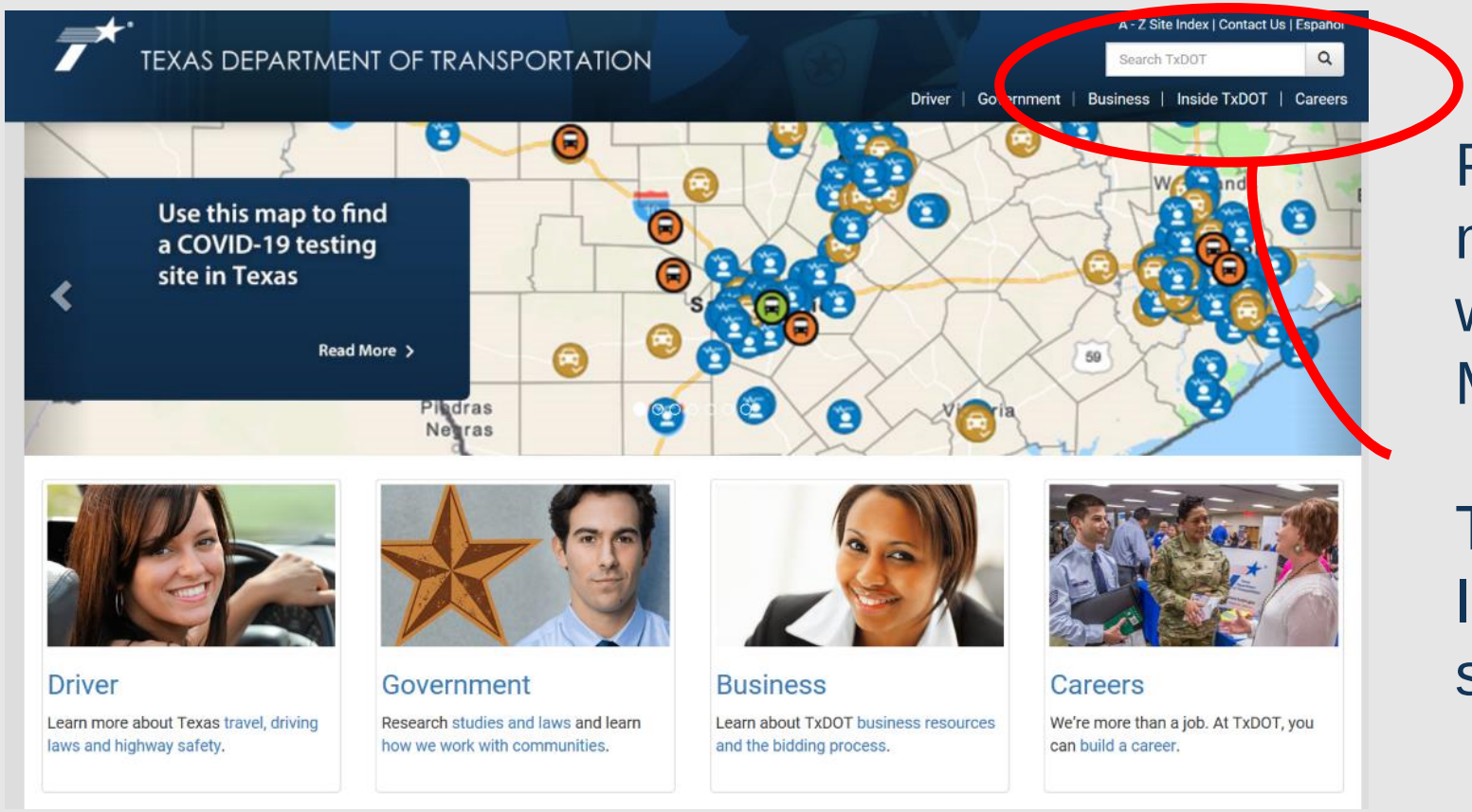
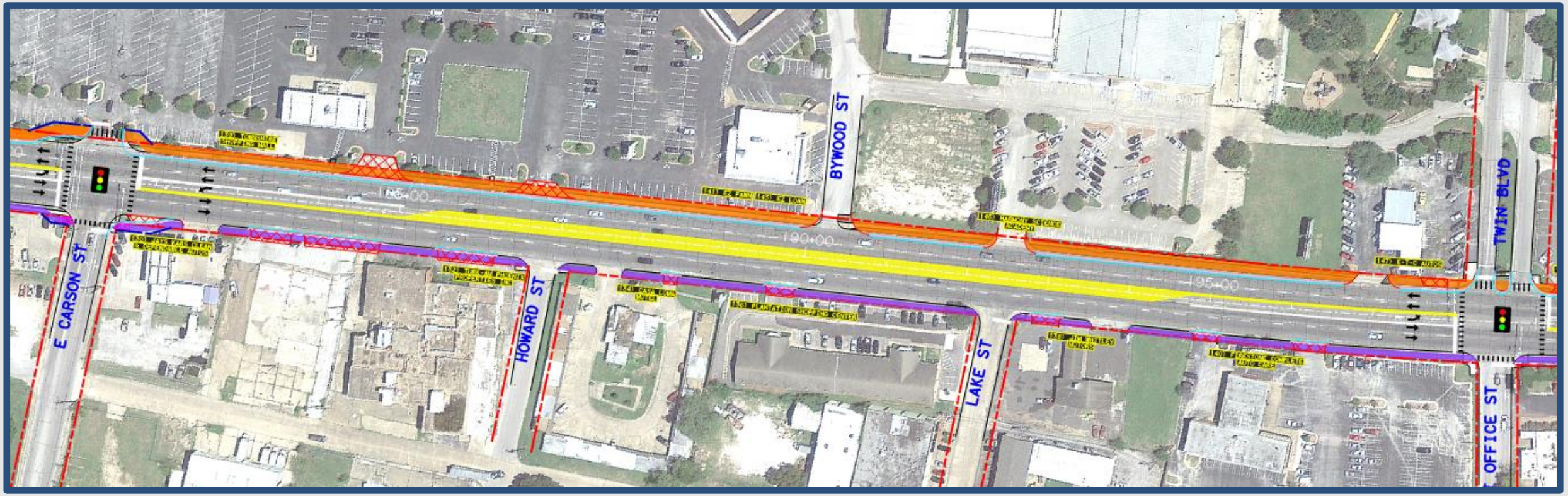
Preliminary Schematic



Preliminary schematic will be made available online at the website www.txdot.gov on Public Meeting date.

Type “Texas Avenue Improvements” in the keyword search box.

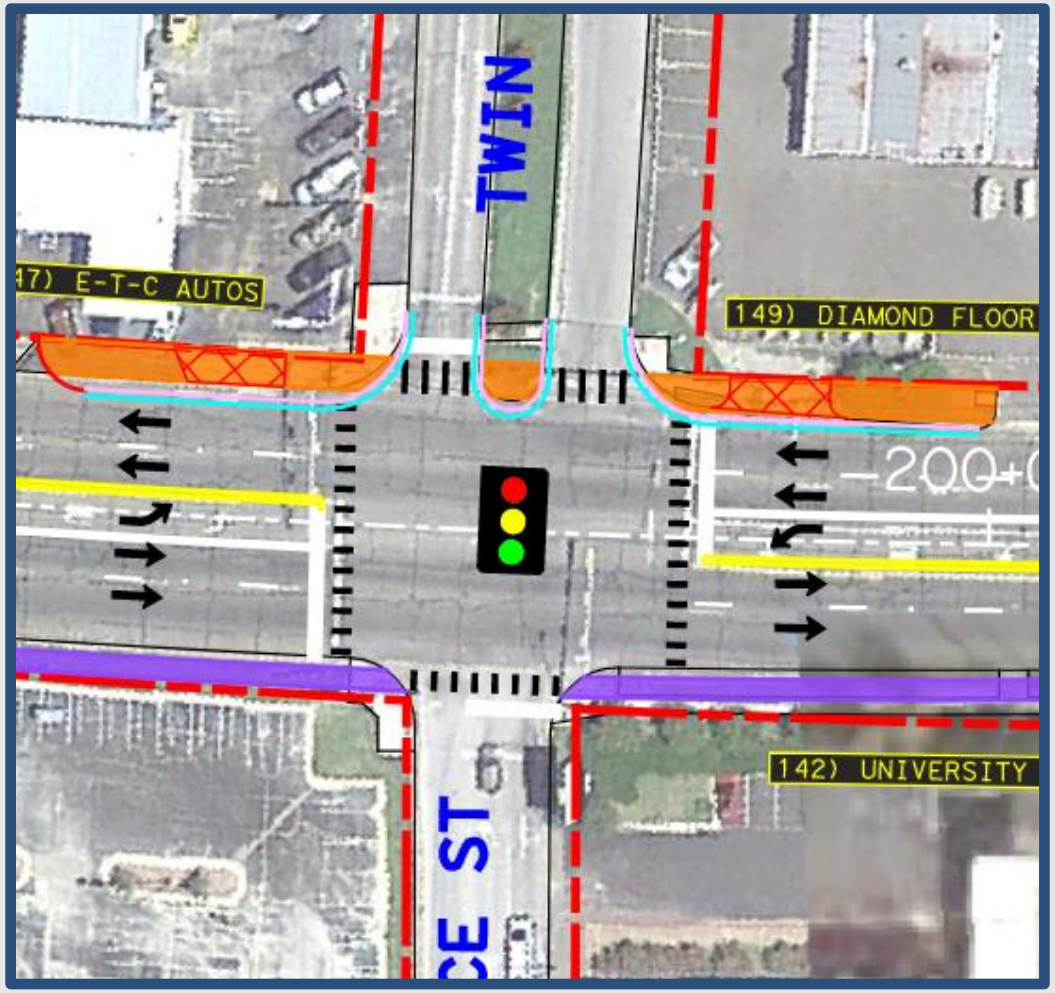
Typical Median Example



A downloadable project schematic will be available at www.txdot.gov, keyword search "Texas Avenue Improvements"

Raised Median Configuration – Intersection without Loon

Texas Avenue at Post Office Street/Twin Blvd.



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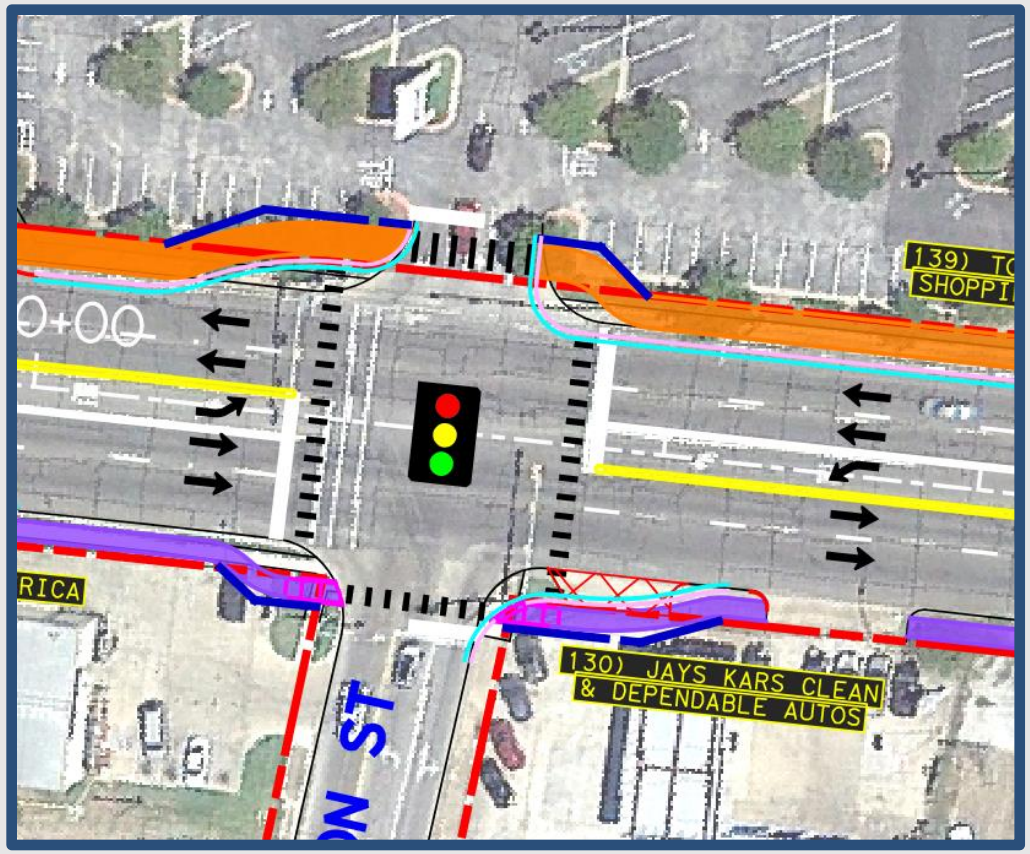
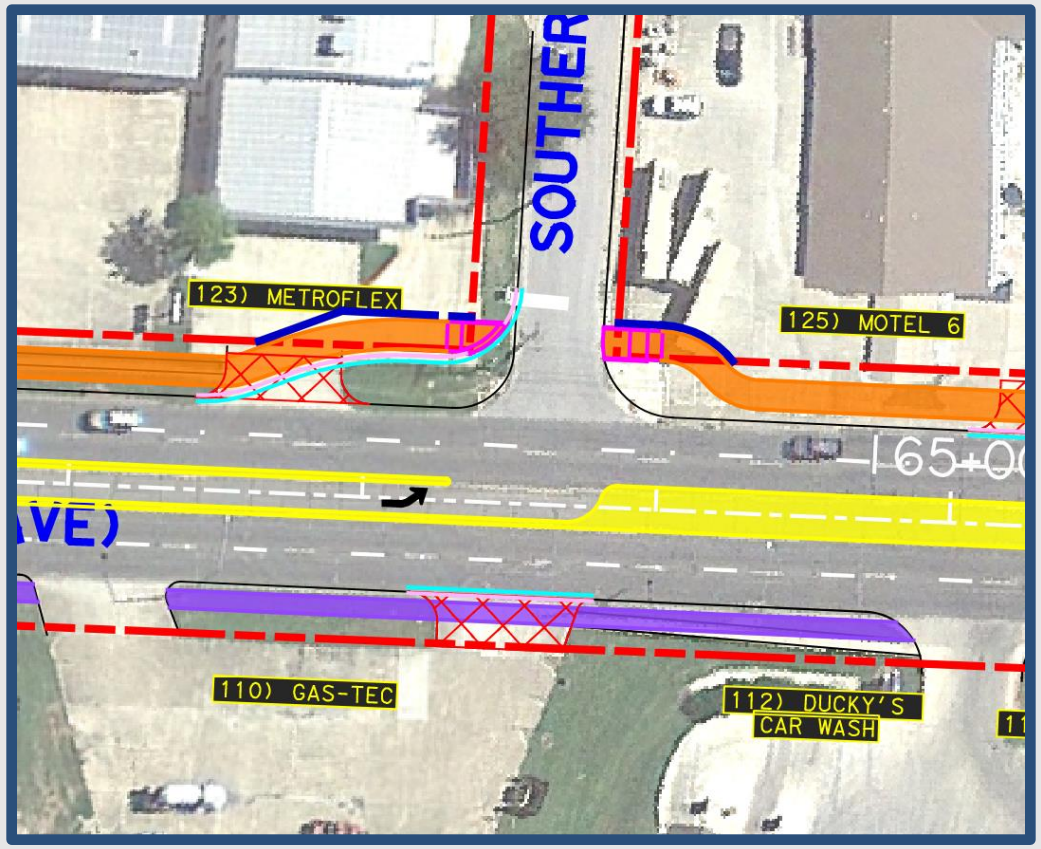
U-Turn Configuration– Intersections with Loons

Texas Avenue at E. Carson Street - Signalized



Texas Avenue at Southern Avenue - Unsignalized



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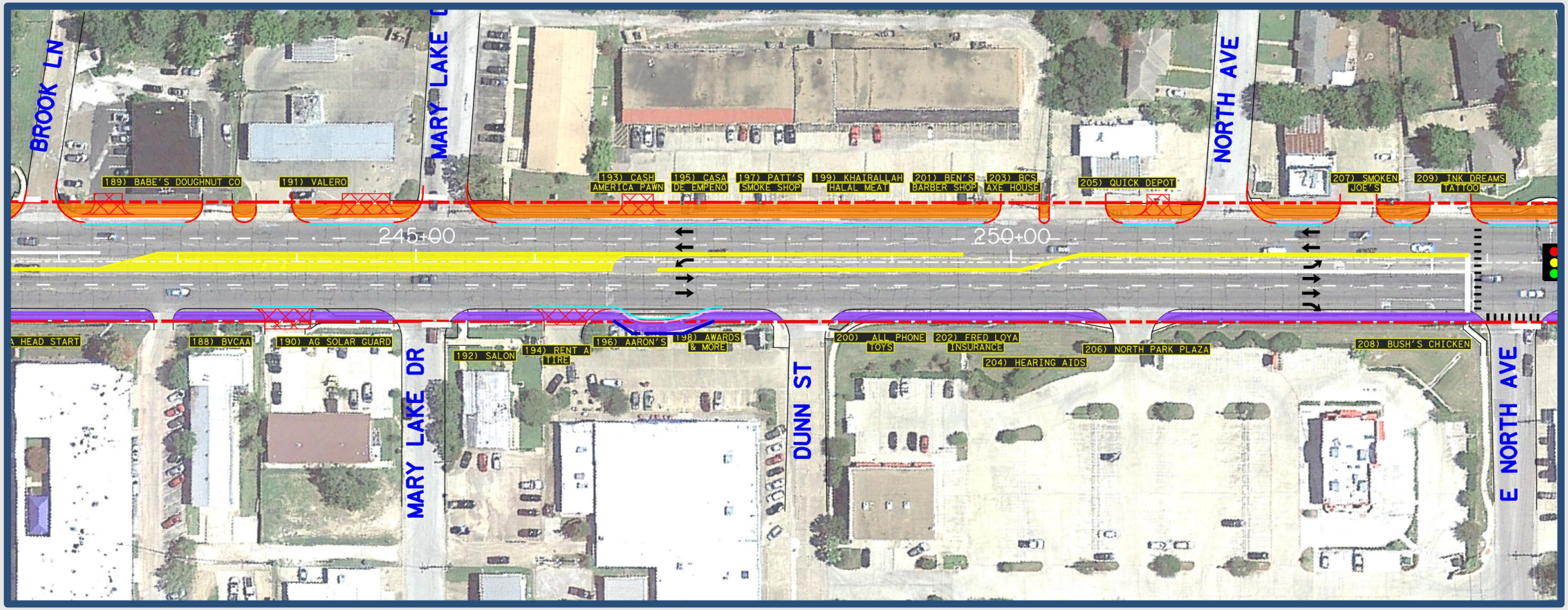
U-Turn Configuration– Midblock with Loons



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U Turn Loon Locations

Signalized Intersections

Number	Location		SUP/Sdwk	ROW required	Area - SF	Phase
1	E. Carson St.	NE corner	SUP	105x17	1785	2B
2	E. Carson St.	SW corner	Sdwk	105x13	1365	2B
3	N. Rosemary	NE corner	SUP	105x17	1785	2A
4	N. Rosemary	SW corner	Sdwk	105x13	1365	2A

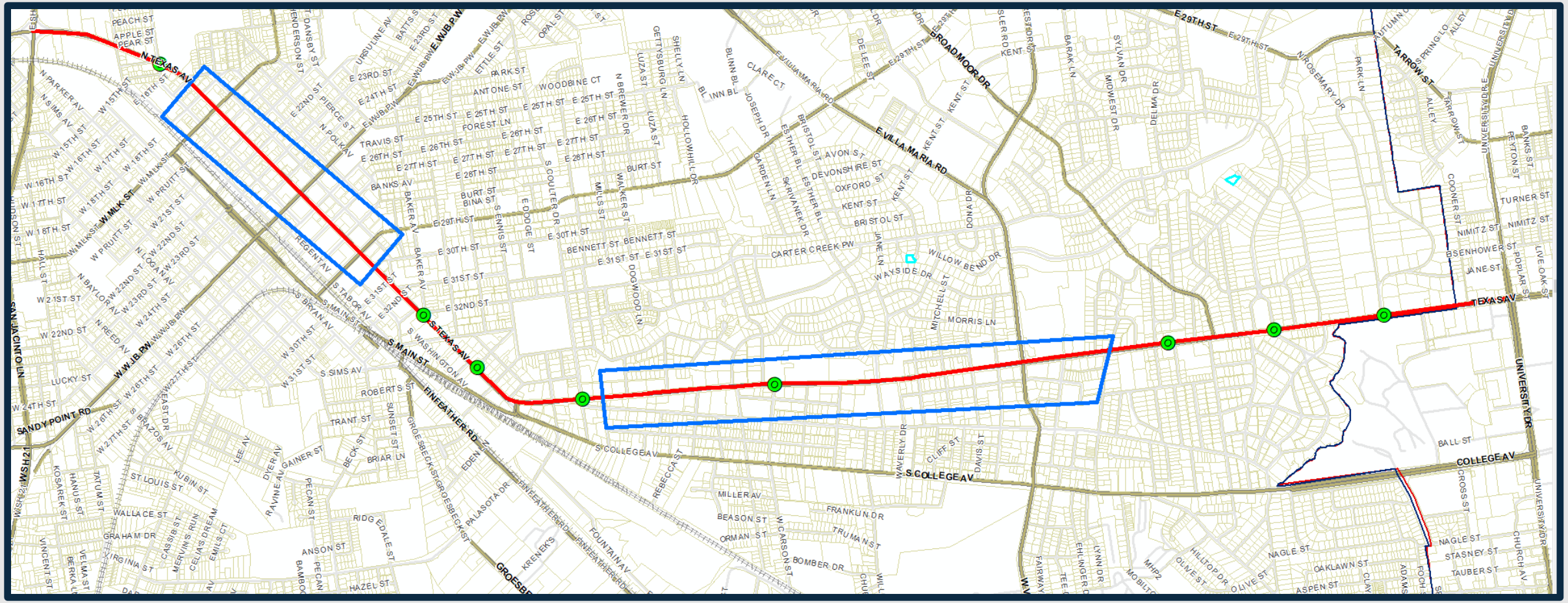
Non Signalized Intersections

Number	Location		SUP/Sdwk	ROW required	Area - SF	Phase
1	N. Washington Ave.	NE corner	SUP	105x15	1575	2B
2	32nd Street	NE corner	SUP	105x15	1575	2B
3	32nd Street	SW corner	Sdwk	105x11	1155	2B
4	Southern Ave	NE corner	SUP	105x15	1575	2A
5	S. Garden Acres	NE corner	SUP	105x15	1575	2A

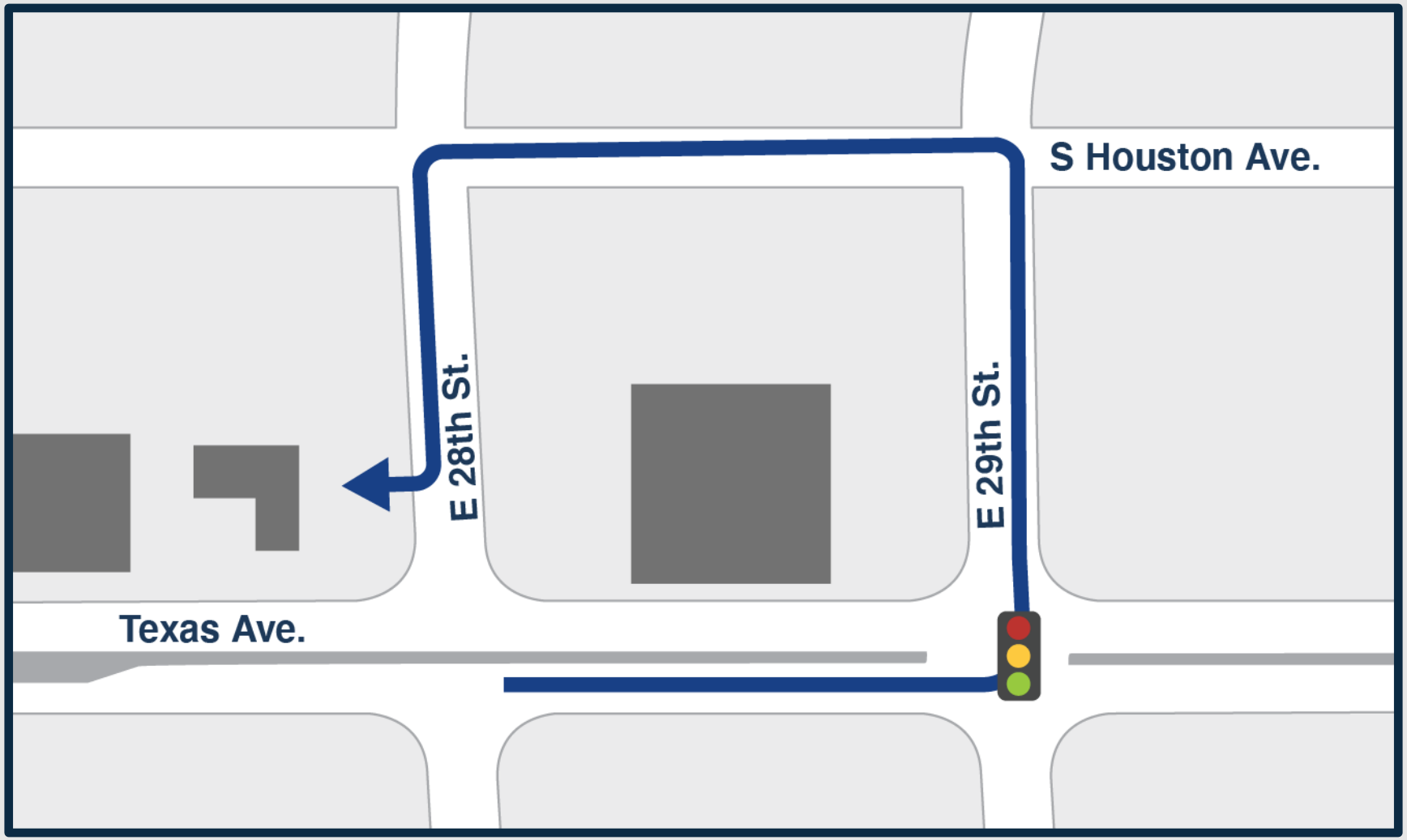
Midblock Locations

Number	Location		SUP/Sdwk	ROW required	Area - SF	Phase
1	Between Homestead & Pease	West side	Sdwk	117x9	1053	2B
2	Between Mary Lake and Dunn	West Side	Sdwk	117x9	1053	2B

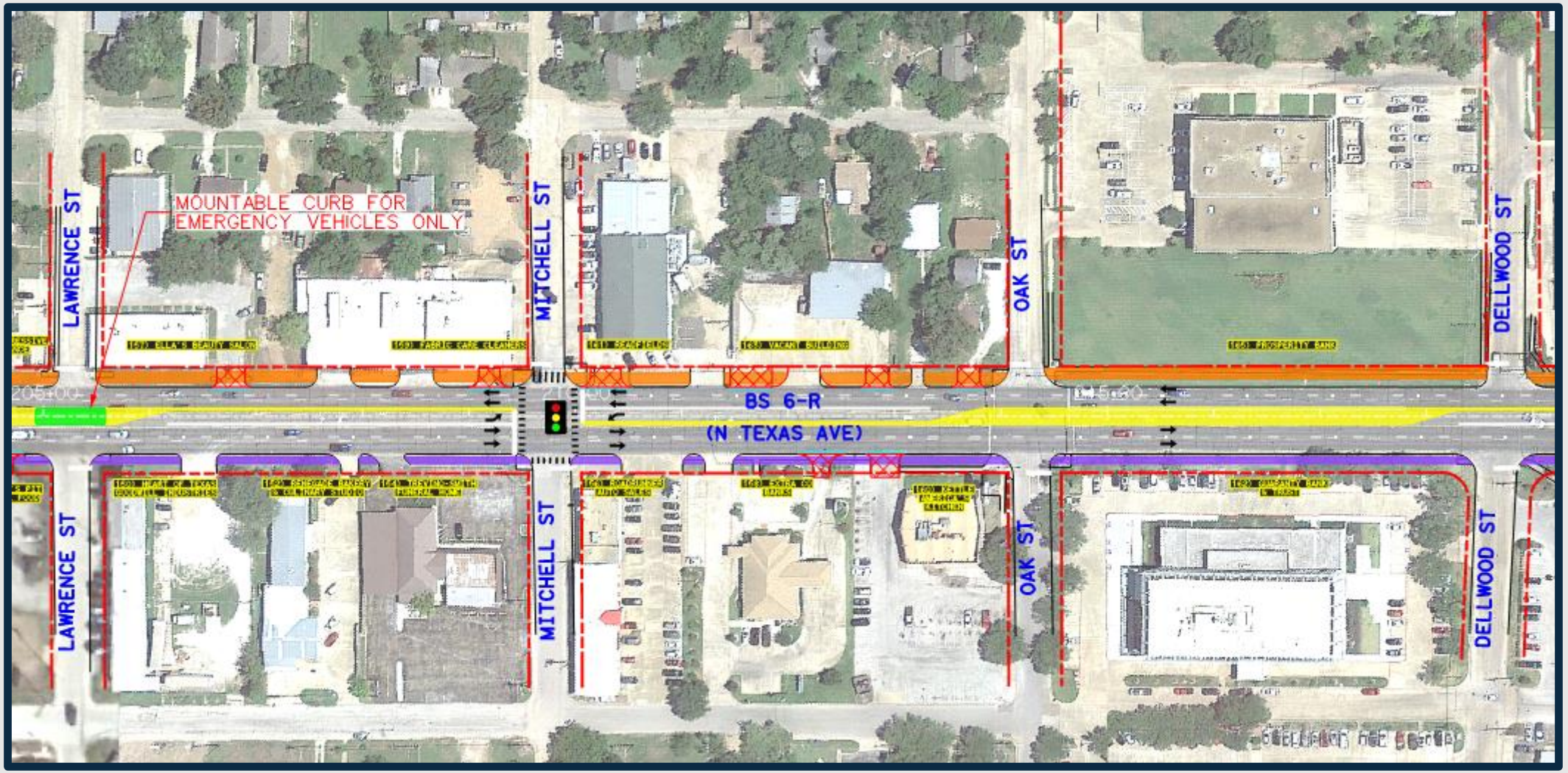
U Turn Loon Locations



Utilizing Adjacent Roadway Network



Traffic Signal Relocations



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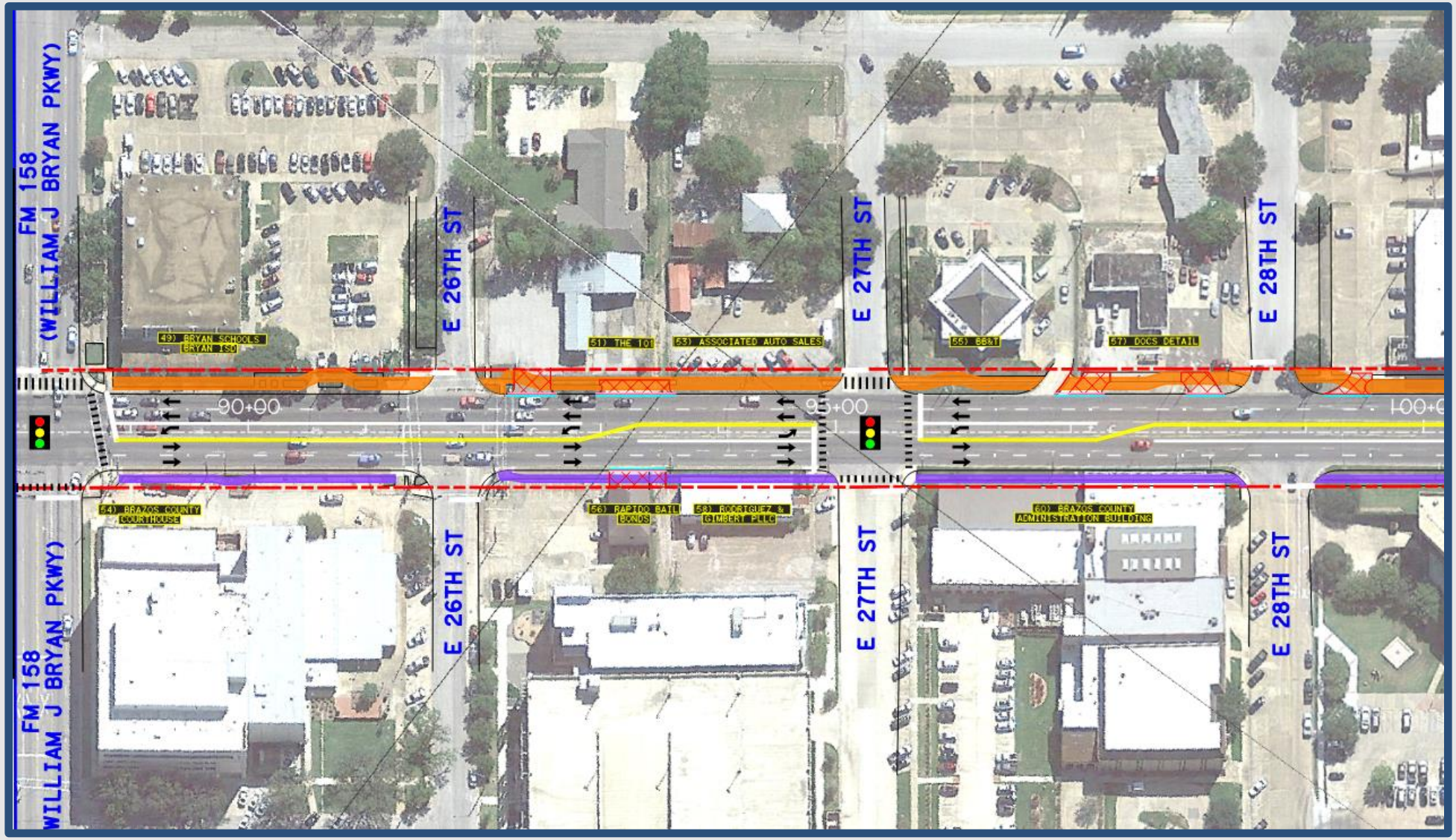
Traffic Signal Relocations



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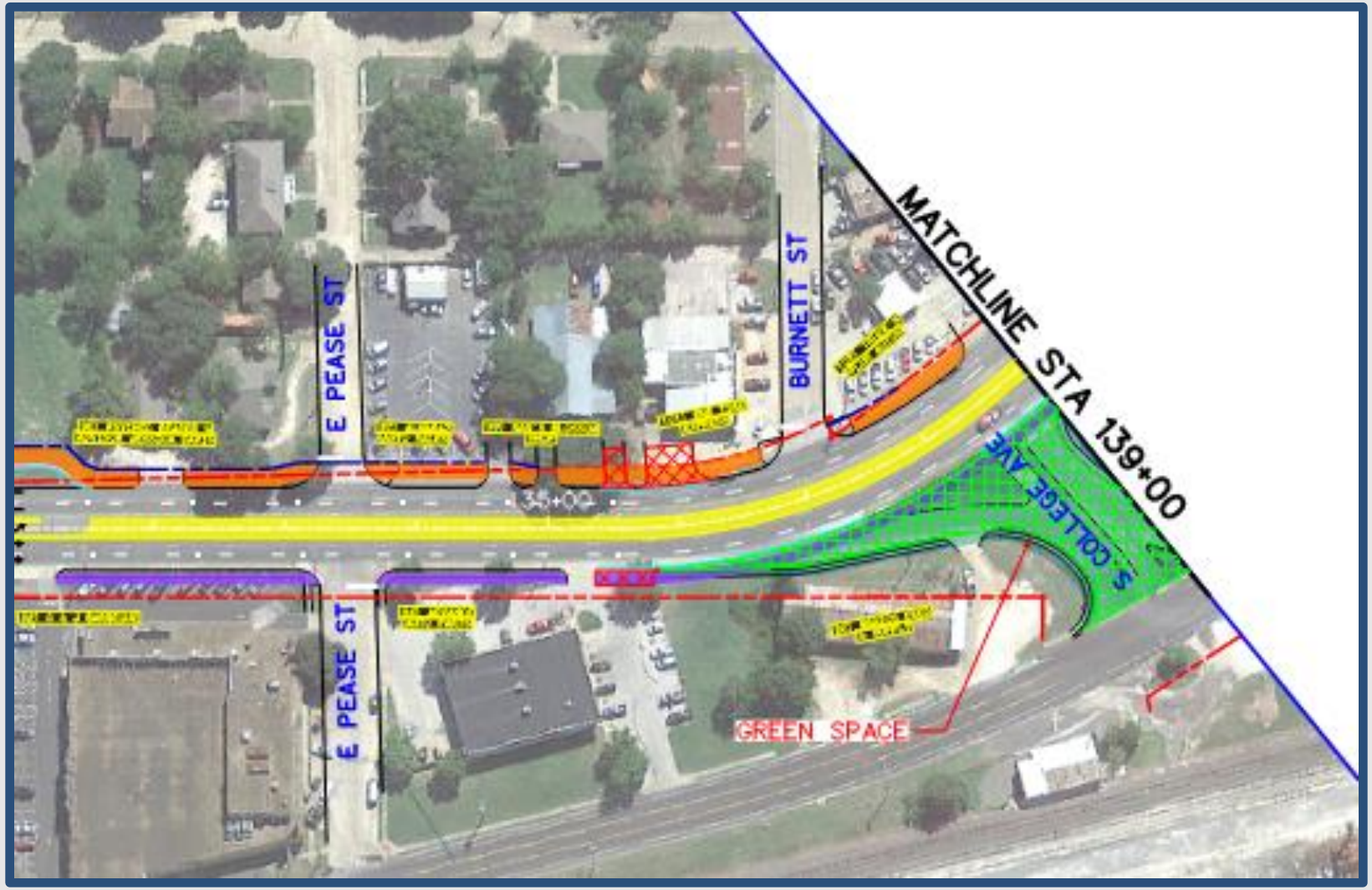
Geometric Changes



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Texas Avenue Redevelopment Potential

Corridor Beautification Partnership Program established by Council on Dec 10, 2017

From FY17 through FY20:

- 9 funded applications along Texas Avenue
- Cost of improvements ranged from $10,000 to $125,000
- CBP facilitated $547,398 total in improvements to private property and businesses specifically on Texas Avenue
- $200,455 was reimbursed to the applicants, for an average reimbursement of $22,272 per applicant.

Texas Avenue Redevelopment Potential

Buddy's Appliance

Bryan Pediatric Dentistry

Edgemore Center

Texas Avenue Redevelopment Potential

- Vacant or underutilized Properties along the corridor
- Similar Private Sector reinvestment may happen as it did after public reinvestment in infrastructure in Downtown Bryan 20 years ago.
- Redevelopment = increased traffic volumes
- Mitigate future accident potential.

Landscaping / Streetscaping

Landscaping Plan Coming Soon – Following Final Schematic

- **Landscaping Budget - $1,430,000 MPO/TXDOT**
- **Deliver a section of the project in Downtown area as an example of what the whole corridor could be.**
- **Develop Masterplan/Guidelines for the remainder of the corridor to implement as redevelopment occurs or additional landscaping dollars applied.**

Project Cost

BCS MPO Transportation Improvement Program:
Estimated Cost = $4M for Phase 1
Estimated Cost = $26M for Phase 2a and 2b

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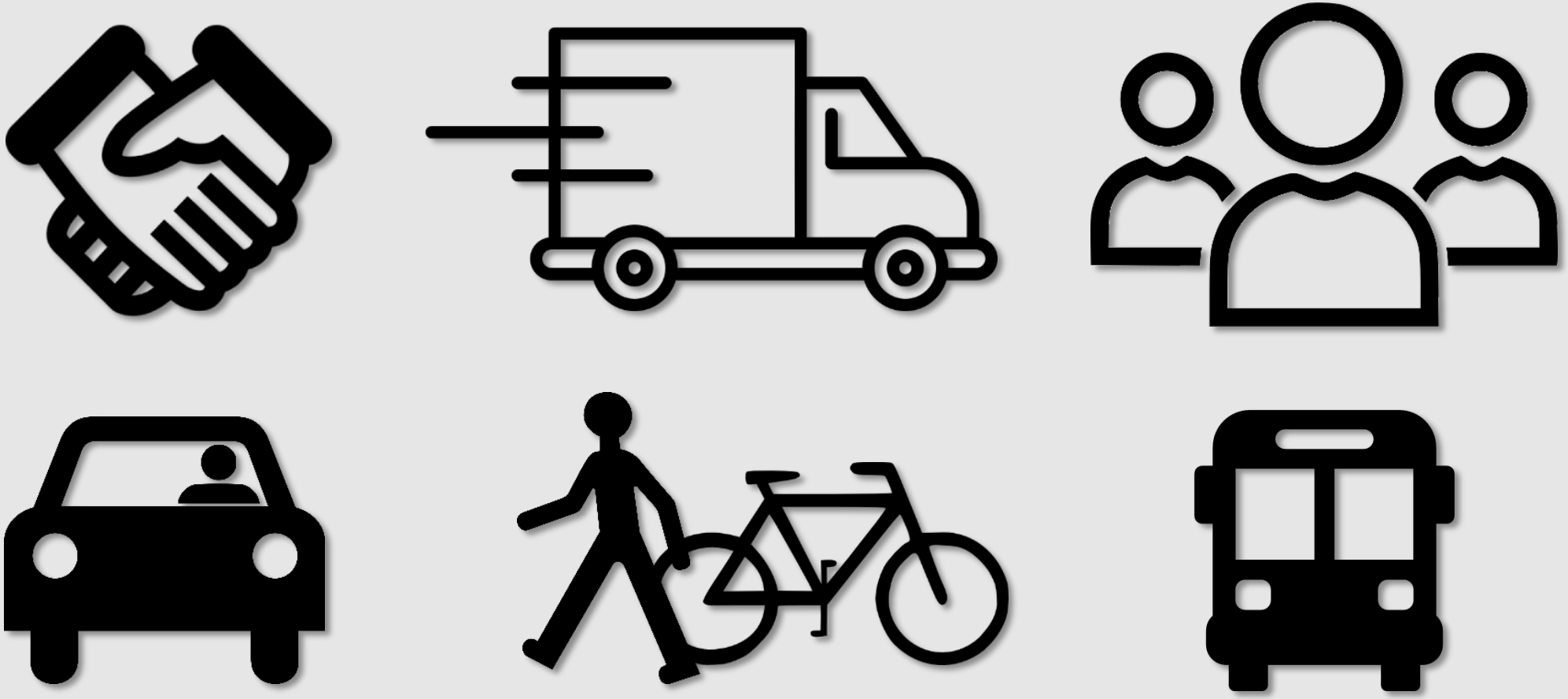
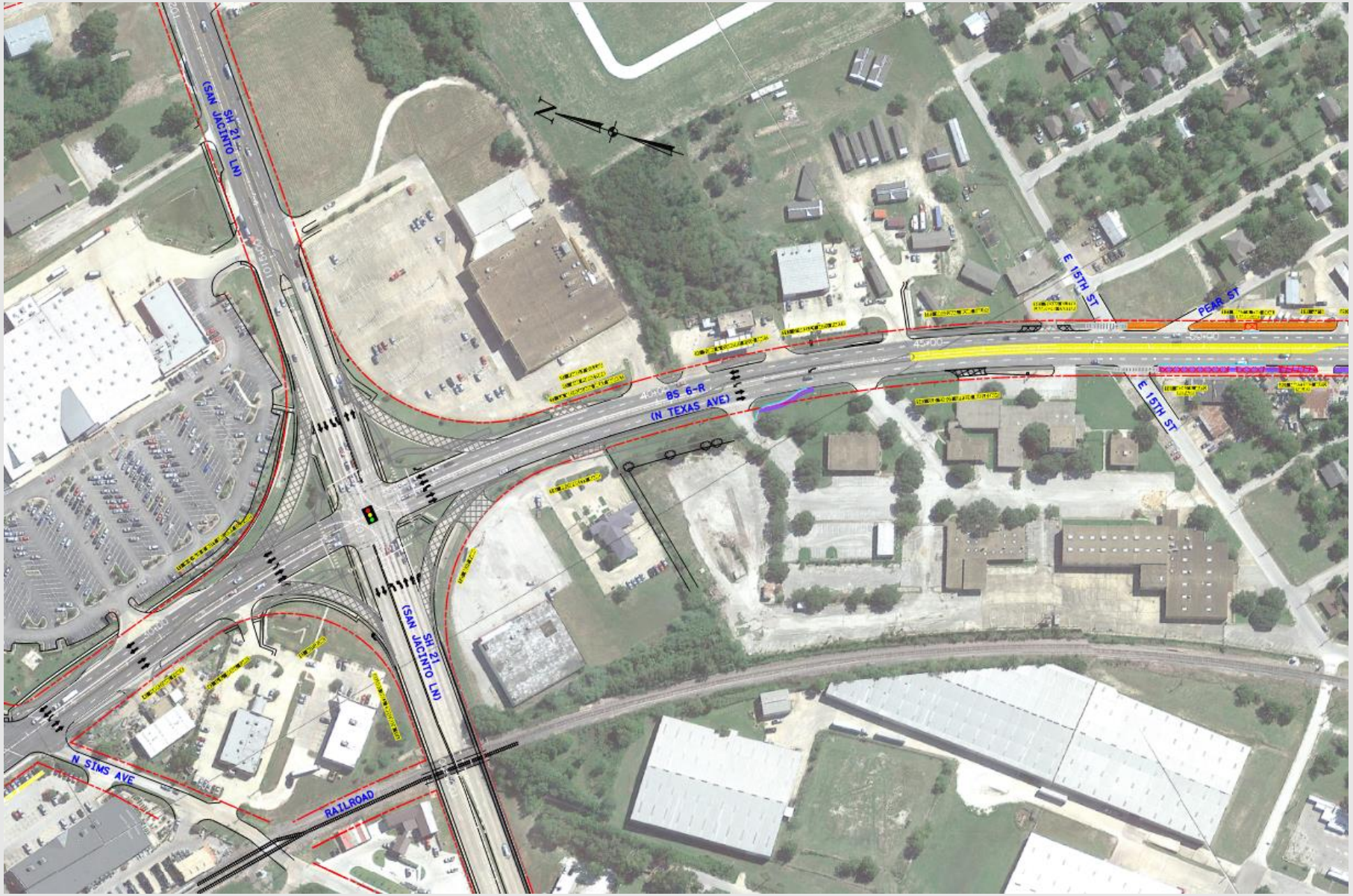
Texas Department of Transportation

BCS MPO
BRYAN/COLLEGE STATION METROPOLITAN PLANNING ORGANIZATION

QUESTIONS?

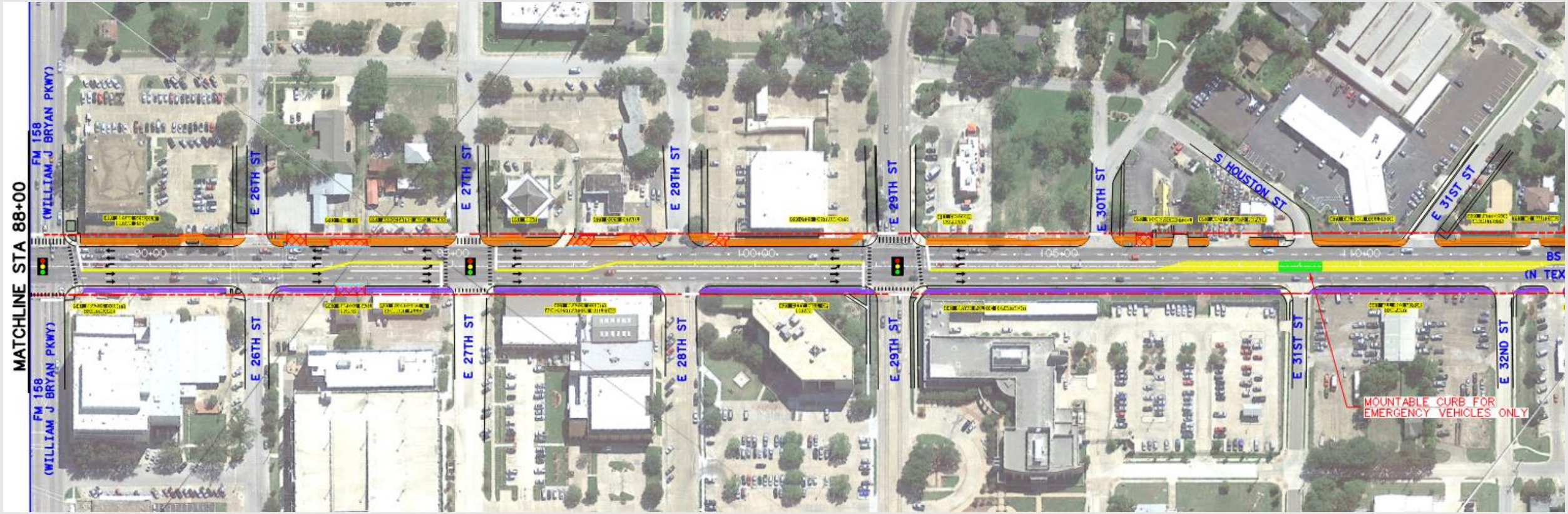


Phase 1 Layout



Phase 2 Schematic Layout Examples

Phase 2 Schematic Layout Examples



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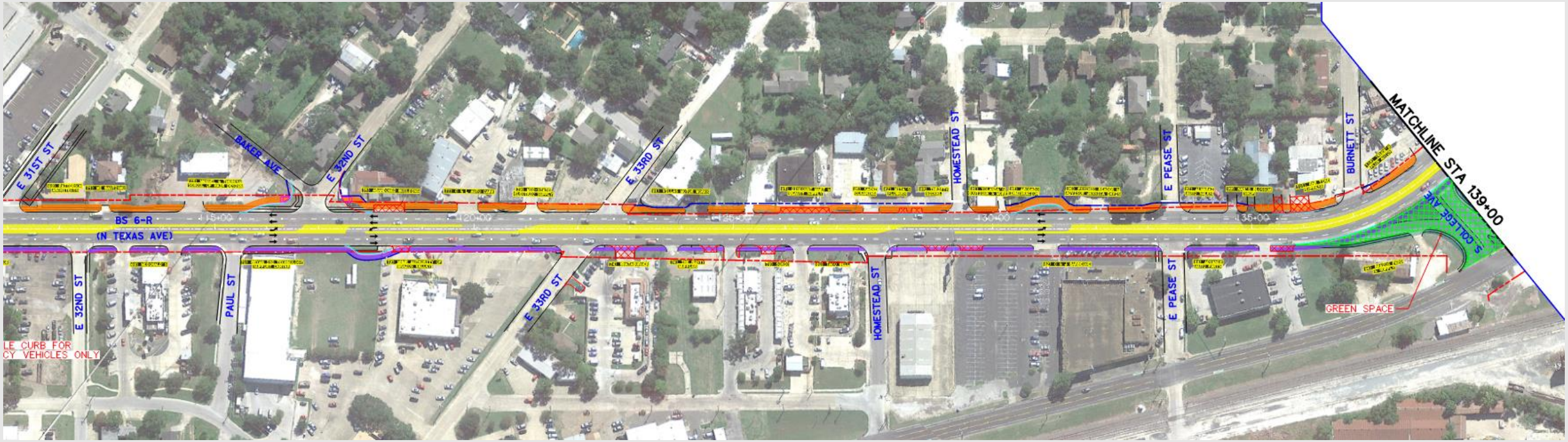

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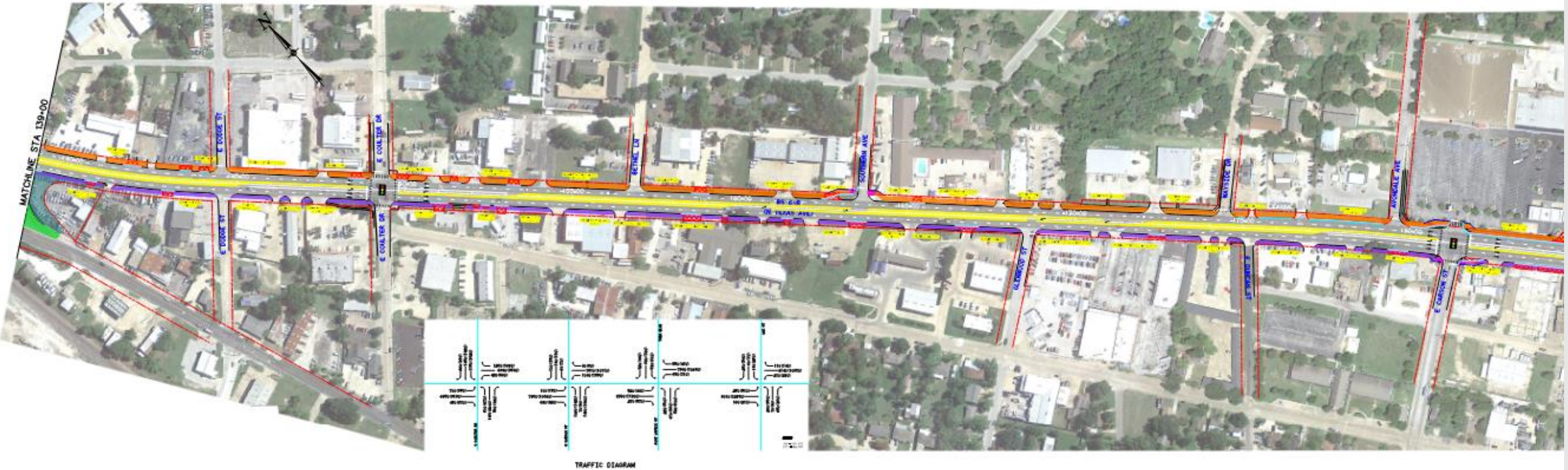

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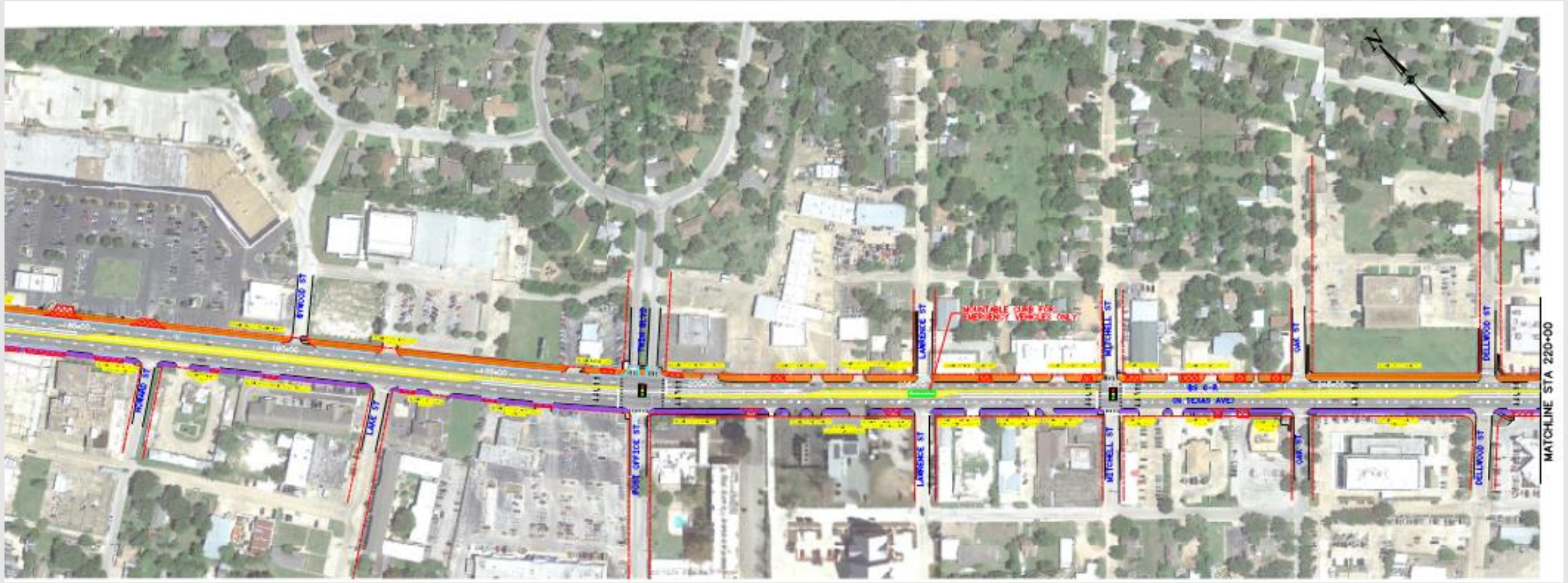

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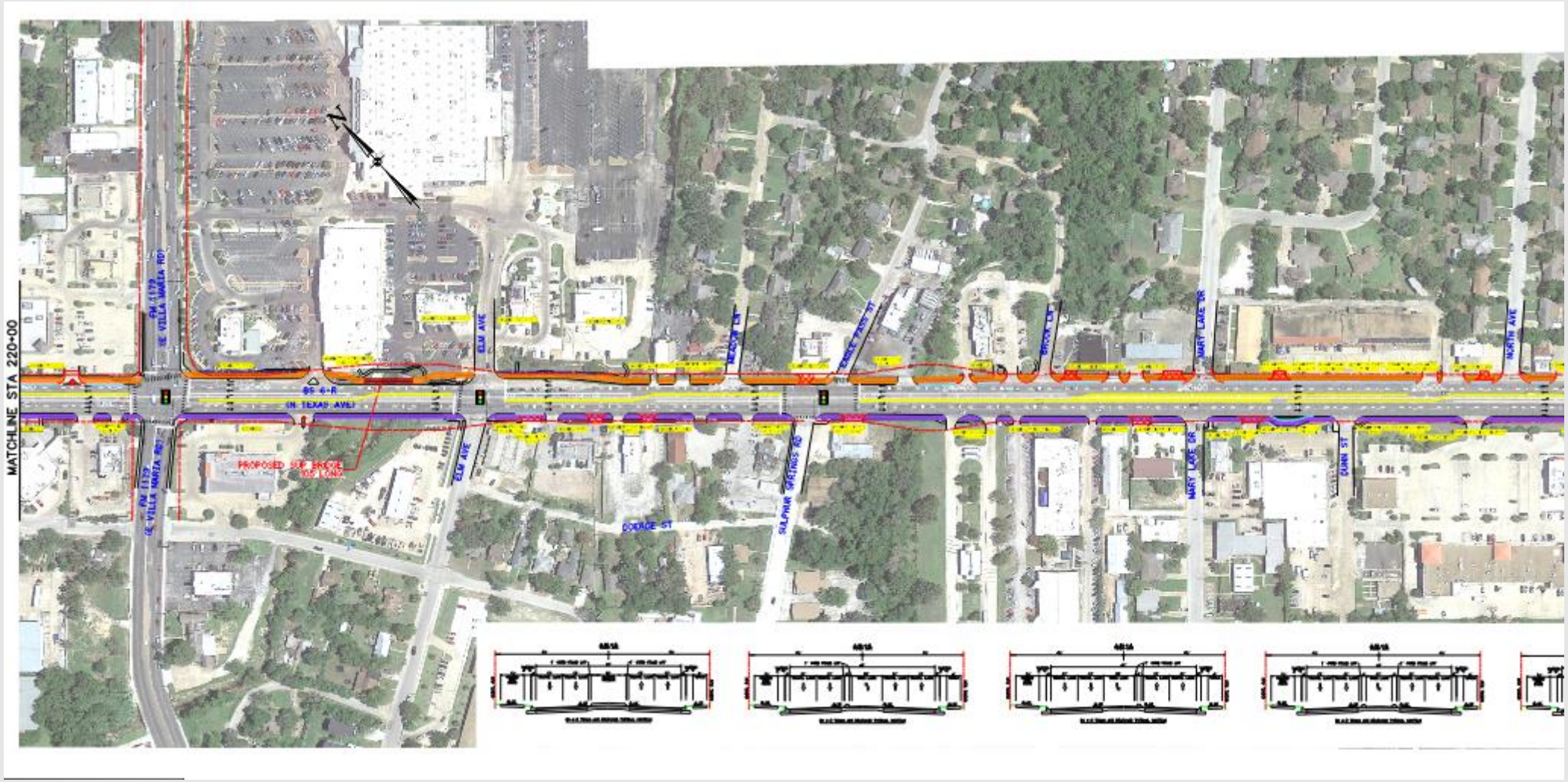

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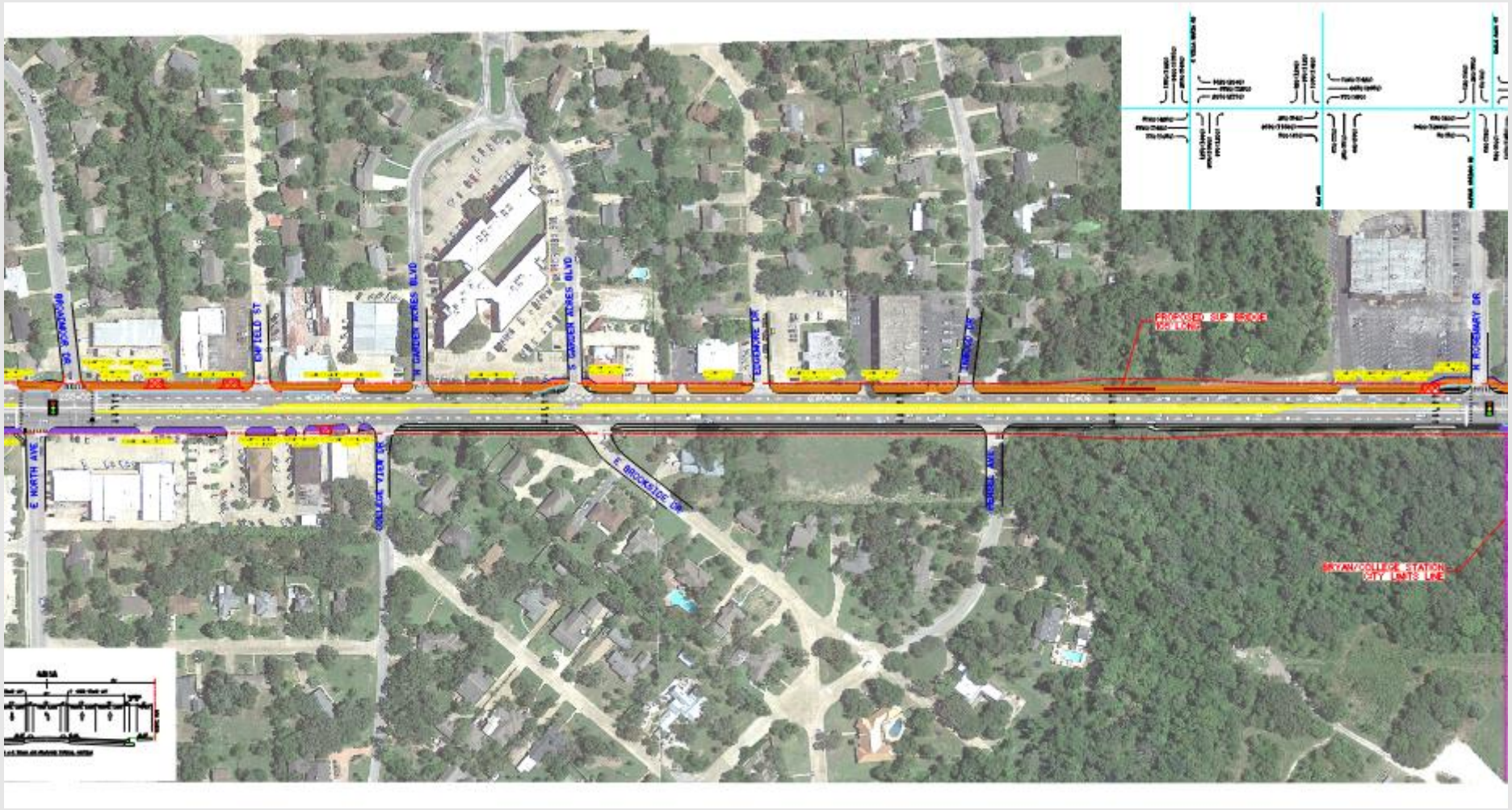

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