



NCTCOG PRESENTATION

HICKORY TREE ROAD PLANNING STUDY

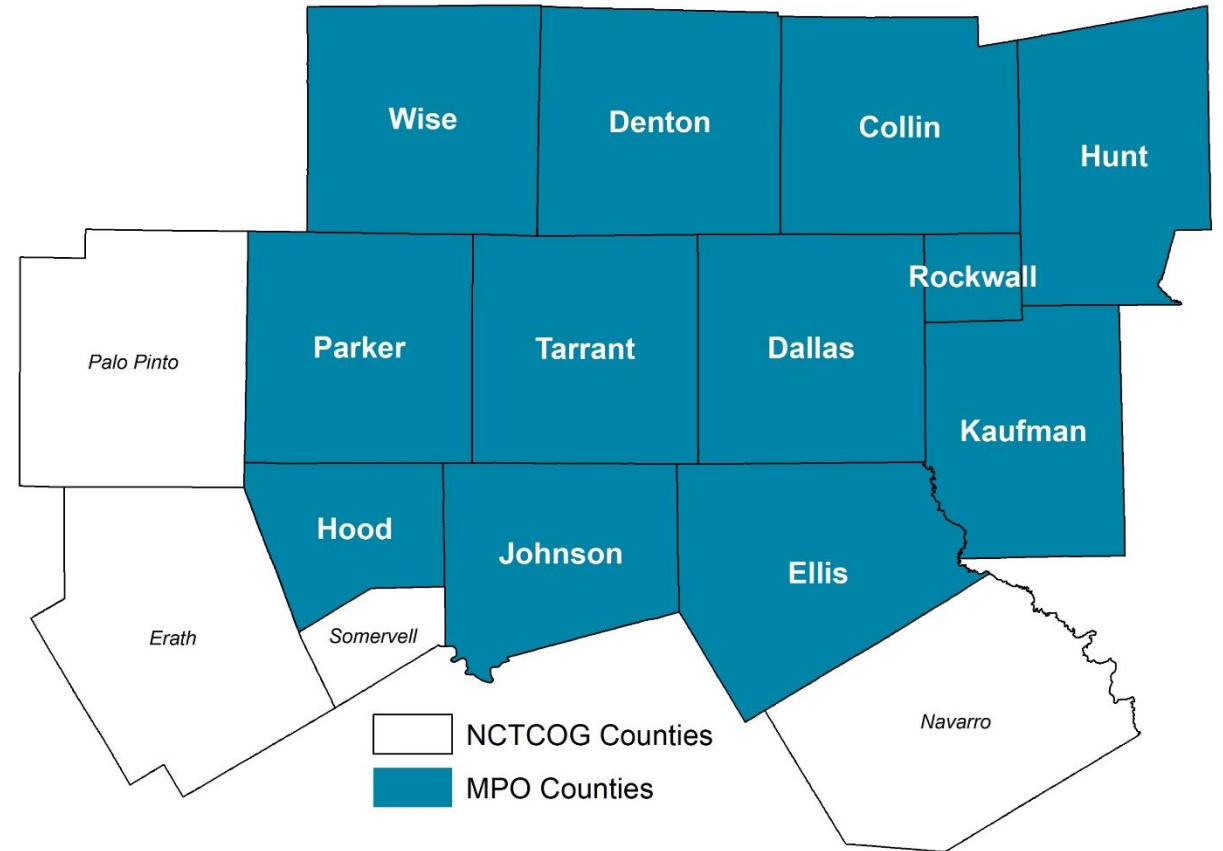
SHAWN CONRAD – PRINCIPAL TRANSPORTATION PLANNER
BALCH SPRINGS CITY COUNCIL MEETING
3.28.2022

About NCTCOG

- North Central Texas Council of Governments (NCTCOG)

Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth region

- Regional Transportation Council (RTC)
 - Transportation Actions
 - Funding of “Projects and Programs”
 - Effectiveness and Equity



www.nctcog.org



Project Background

May 2020: City submitted funding proposal to NCTCOG

June 2020: RTC approved corridor planning study by NCTCOG staff to develop context-sensitive corridor plan facilitating economic growth

Elam Road to Bruton Road

April 2021: RTC approved COVID Round 4 funding award for Phase 1 Hickory Tree Road construction: **Elam Road to Lake June Road**

- \$13.5M Total: \$8.2M Federal / \$5.3M Local (County) / 260K Regional Transportation Development Credits
- Anticipated FY 22-25: Engineering, Right of Way, Utilities, & Construction

Funding partners include NCTCOG, County, TxDOT, and City of Balch Springs



Project Background (cont.)

Improvements to Hickory Tree Road were recommended in the 2019 Balch Springs Mobility Plan and 2036 Comprehensive Plan.

#5 – HICKORY TREE ROAD: PHASE 1 (LAKE JUNE ROAD TO ELAM ROAD), PHASE 2 (BRUTON ROAD TO LAKE JUNE ROAD)

LOCATION MAP



PROJECT CHARACTERISTICS & RECOMMENDATIONS SUMMARY

	Existing	Planned
Lanes	2 lane undivided	3 lane undivided (two-way left turn lane)
Sidewalks	-	✓
Bicycle/Trail	-	✓
Transit Route	✓	✓
Freight Route	-	-

TRANSPORTATION PRIORITIES ADDRESSED

Traffic & Congestion	Pedestrian/Multimodal	Safety	Economic Development	Freight	Comprehensive Plan Priority
✓	✓	✓	✓		✓

PROJECT DESCRIPTION

Project Type	Roadway Widening
Thoroughfare Classification	Collector
Length	2.03 mi
From	Bruton Road
To	Elam Road

EXISTING ISSUES & OBSERVATIONS

- Current traffic volumes are at or near capacity for segments of Hickory Tree Rd between Bruton Rd and Elam Rd; the Phase 1 segment (Lake June Road to Elam Road) is the highest priority for improvements
- Current roadway does not have continuous sidewalks
- The lack of separation for left-turning vehicles can increase overall roadway delay
- Moderate crash rate between Lake June Rd and Elam Rd

TRAFFIC & CONGESTION

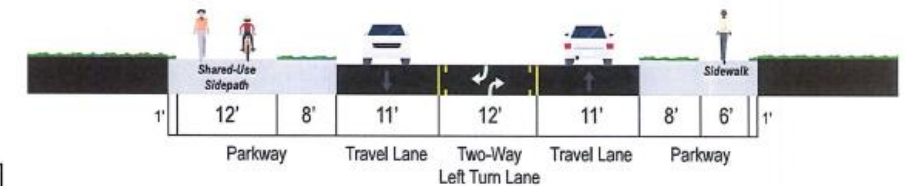
2018 Traffic Count	9,200
2018 V/C	1.05
2018 LOS	F
2045 V/C	1.41
2045 LOS	F

RECOMMENDED IMPROVEMENTS

- Comprehensive Plan recommendation: Improve Hickory Tree Road in coordination with planned development
- Widen roadway to 3 lanes to improve traffic flow and support access to development
- Add sidewalk and a shared-use path to accommodate pedestrian and bicycle travel
- Additional right-of-way may be necessary at major intersections for turn lane storage
- Implementation could occur in phases, with the segment from Lake June Road to Elam Road recommended for improvement in Phase 1

RECOMMENDED CROSS SECTION

Collector – 3-Lane Undivided (70')



Planning Project Goals

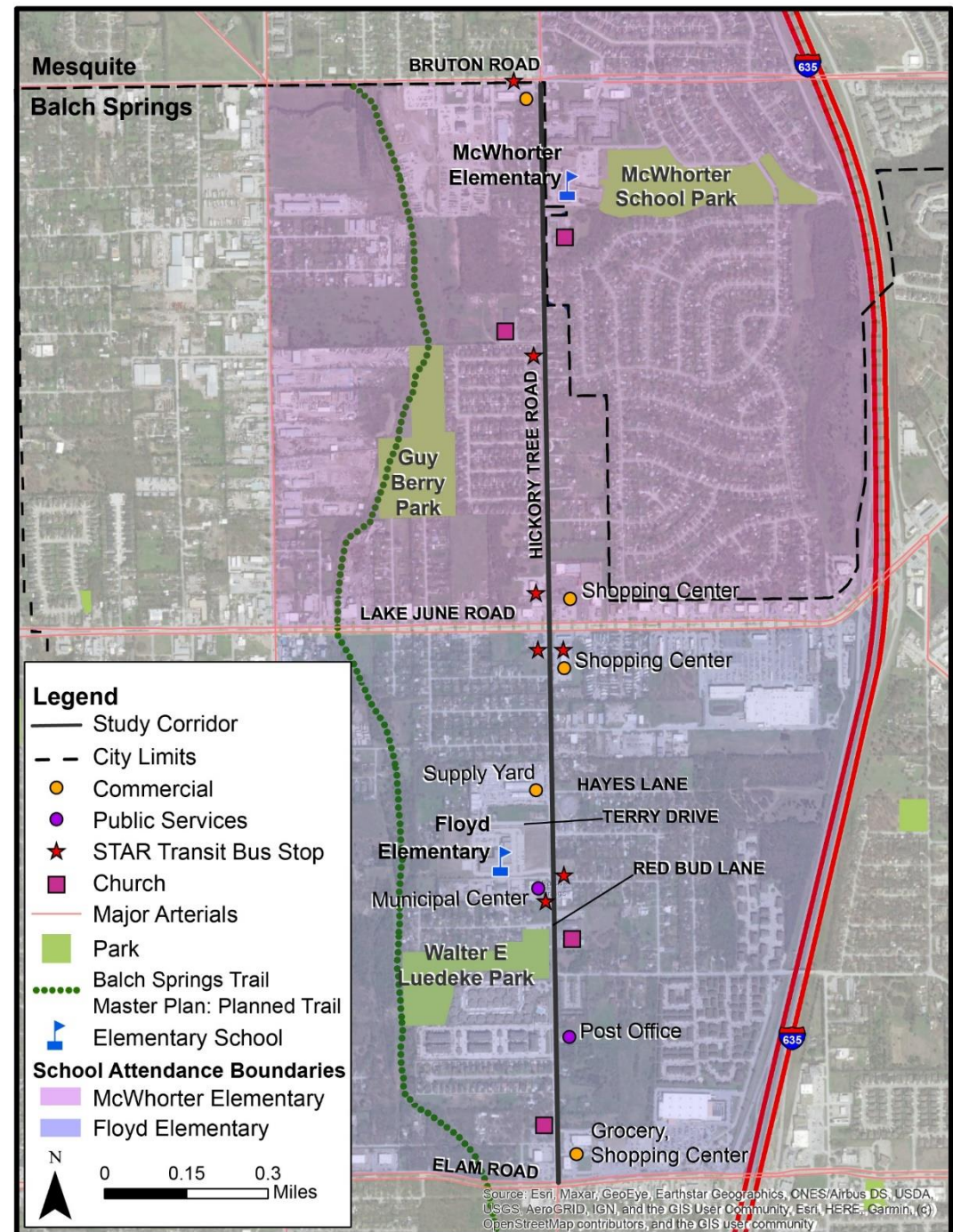
- Develop Context-Sensitive Design recommendations for the corridor
 - Design that is meant to fit the environments of the area surrounding it and meet the needs of the community
- Enhance bicycle/pedestrian experience along the study corridor
 - Increase safety for bicyclists and pedestrians
 - Increase comfort
- Connect key amenities and services along the study corridor
 - Schools, Parks, Municipal Buildings, Commercial Areas
- Facilitate economic opportunity along the study corridor



Planning Project Limits

Project Limits: Hickory Tree Road, from Bruton Rd to Elam Road

Corridor length: 2.03 miles



Public Engagement

Online Public Survey: February 2021-September 2021

Travel modes, safety concerns, future visions for corridor

Respondents reported low rates of walking or biking, but high desire with safer conditions. Congestion, driveway exits were points of concern.

Virtual Stakeholder Meetings: June 2021

Residents, Business Owners, Technical Stakeholders

Virtual Open House: September 2021-November 2021

Pre-recorded presentation, questionnaire about preliminary recommendations and planning project work to date



Site Visits

Walk Audit: 12/3/2020

- NCTCOG & City of Balch Springs
- Evidence of walking was strong even with limited infrastructure, driver safety was a concern

McWhorter Elementary and Floyd Elementary Dismissal Observations: 5/2021

- NCTCOG, City of Balch Springs, City of Mesquite (McWhorter Only)
- Dismissals cause heavy congestion on Hickory Tree Road at the schools
- Opportunities exist to strengthen pedestrian connections for students to surrounding neighborhoods



Major Considerations

Utilities

- Many located in the right-of-way that would need to be relocated

Bicycle and Pedestrian Safety

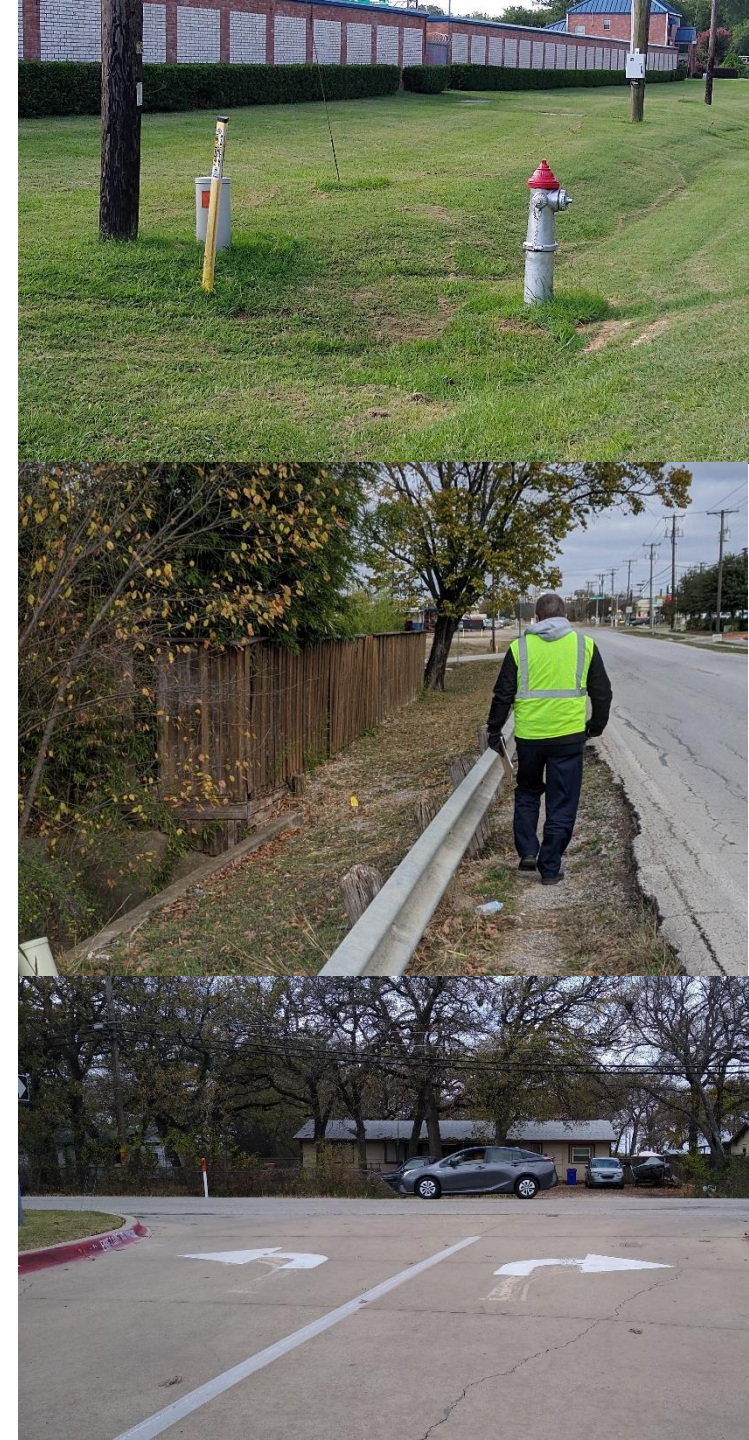
- Strong desire to walk and bike but limited infrastructure

Pass-Through Traffic

- Hickory Tree Road is a parallel route to I-635 and used to avoid difficult nearby intersections

Access Management

- Maintain access to driveways for homes and businesses, reduce queueing behind drivers waiting for left turns



NCTCOG's Cross-Section Recommendation

Three-lane roadway with center turn lane and pedestrian refuge islands at key crossing locations

Major Considerations:

- Access to homes/businesses
- Congestion management
- Queuing for pick up/drop-off at schools
- Bicycle/pedestrian safety and improvements
- Pedestrian crossing treatments

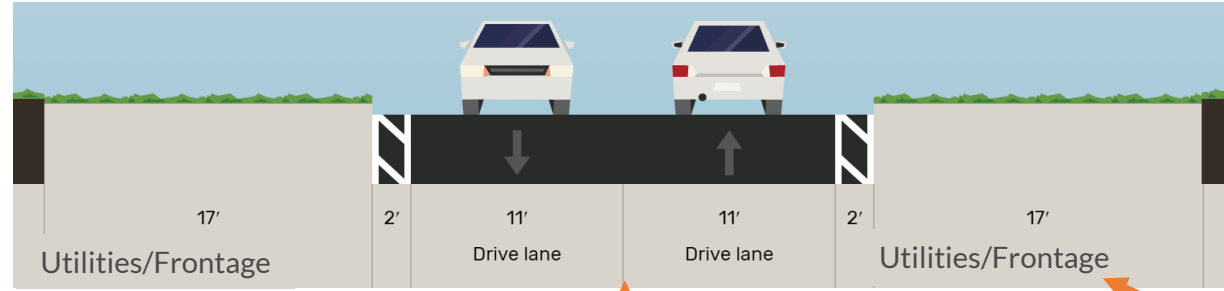
Why:

- Improve access to businesses / residences
- Improve congestion
- Room for bicyclists and pedestrians to travel safely
- Improve safety for bicycle/pedestrian
- Future traffic volumes

NCTCOG Recommendation vs Current Cross-Section:

Current Cross-Section:
2-Lanes with limited
Bike/Ped Amenities:
60' ROW

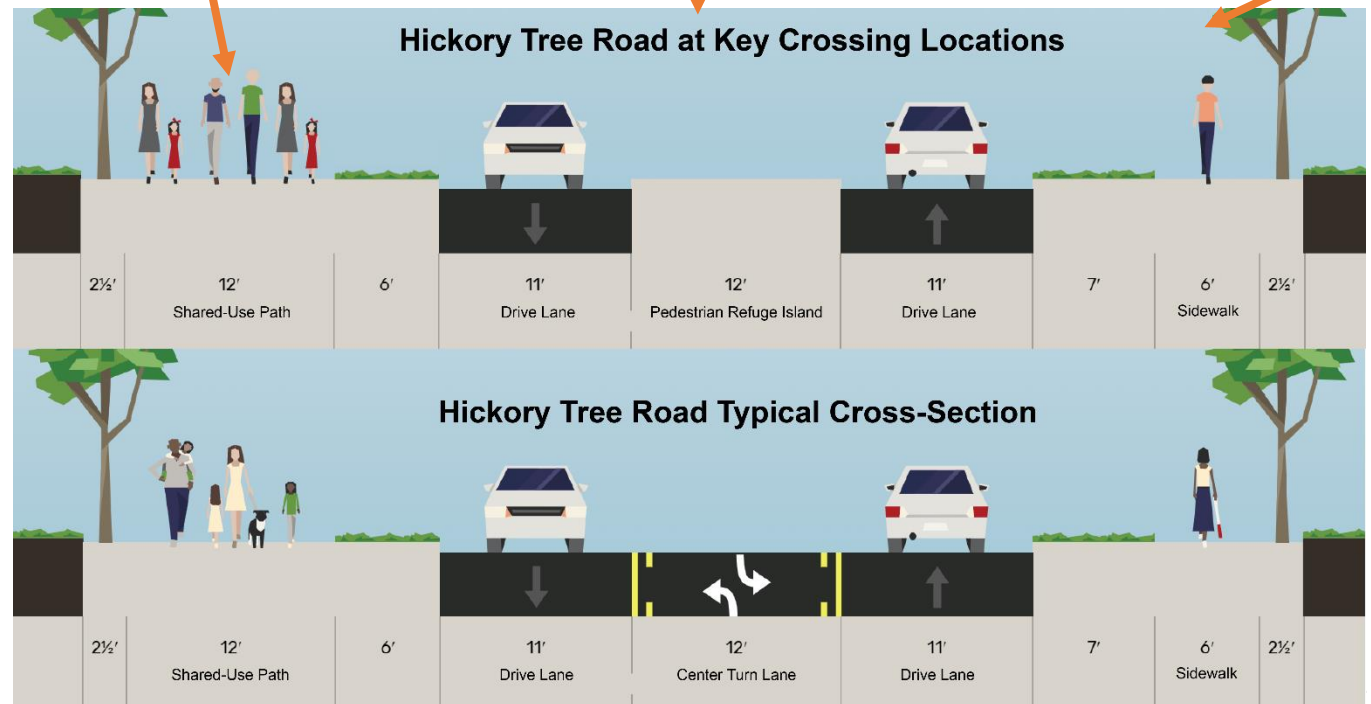
Recommended Cross-Section:
3-Lane Cross-Section with
Added Ped Refuges:
70' ROW



12' Multi-Use Path for
bikes and pedestrians +
buffer space from
roadway

Maintain travel lane
widths and add pedestrian
refuge island/center turn
lane

6' Sidewalk for
pedestrians and
buffer space from
roadway



Recommendations

Note: exact placement of spot-based recommendations will be explored during the design phase of the project.

Center Turn Lane:

- Allows for left and right driveway exits
- Vehicles waiting to turn left no longer cause back-ups
- Maximizes access to businesses
- Pedestrian Refuge Islands
 - Increases safety for crossing multi-lane road
 - Allows pedestrians to focus on one direction of traffic at a time
 - Priority Placement Locations at schools, parks, etc.



Center Turn Lane: Imagery Courtesy of Google



Pedestrian Refuge Island: Image Courtesy of Dan Burden



Recommendations (cont.)

- Sidewalks and Shared-use Paths
 - Sidewalks: 5-6', meant for pedestrians
 - Shared-use Path: >10', shared by bikes and pedestrians
- Crossing Safety Enhancements
 - Improve visibility of crosswalks in all weather and lighting conditions
 - Concepts for all mid-block crosswalks:
 - High Visibility Crosswalk Paint
 - Crosswalk Warning Signs
 - Vehicle Stop Lines
 - Additional Lighting



Shared-use Path: Photo Courtesy of Fort Worth



Crossing Safety Enhancements: Photo Courtesy of Dan Sundstrom



Recommendations (cont.)

- Pedestrian Hybrid Beacon
 - Beacon activates to temporarily halt traffic to allow pedestrians to safely cross
 - Once pedestrian crosses, road returns to normal conditions
 - Possible locations include:
 - Schools
 - Parks
 - Any other areas with safety concerns



Next Steps:

Complete Planning
Study

March-April 2022

Project Design: FY 22
ROW Acquisition: FY
23

Utilities: FY 24
Construction: FY 25

ROW Acquisition

Meetings with property
owners after final
roadway design
complete

Construction &
Utilities

Construction schedule
and traffic access
discussion to come



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