



Tennessee Street/U.S. 90

Traffic Mobility and Alternatives Study

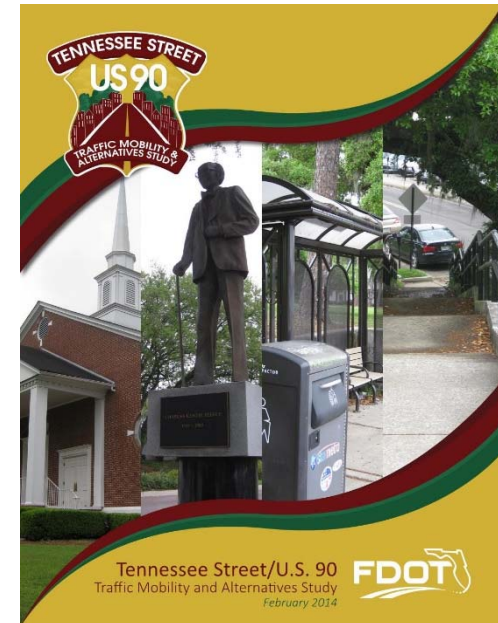
Capital Region Transportation Planning Agency Board
January 12, 2015





Purpose of Study

- Develop a set of alternatives for Tennessee Street/U.S. 90 corridor from Ocala Road to Monroe Street and suggest a recommended alternative to improve safety and mobility across all modes.
- Analyze the potential impacts on surrounding major street network.



Project Status

- Study was completed in February 2014
- Additional Traffic Analysis Conducted in August 2014



Local Partners

- This study was produced by the Florida Department of Transportation, District Three, with the support and assistance of various agencies and departments including:
 - Capital Region Transportation Planning Agency
 - City of Tallahassee Public Works Department
 - Florida State University Facilities Department
 - StarMetro
 - Tallahassee-Leon County Planning Department



Existing Conditions

- Tennessee Street/U.S. 90 serves as one of the few major east-west roadways through Tallahassee and unincorporated Leon County.
- Differences in land use, roadway, and traffic conditions revealed that the study corridor consists of three distinct segments.





Existing Conditions



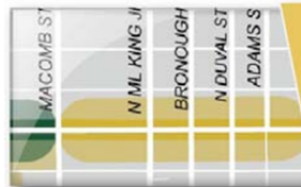
Segment A: Ocala Road to Brevard Street

- Characterized by commercial and retail uses
- High amount of residential units, particularly multi-family
- Contains non-signalized intersections
- Highest traffic volumes in study corridor



Segment B: Brevard Street to Macomb Street

- Major land use is FSU
- High pedestrian traffic
- High traffic speeds



Segment C: Macomb Street to Monroe Street

- Characterized by service and retail uses
- Contains a (SIS) Connector
- Pedestrian infrastructure does not meet design standards
- Closely spaced signalized intersections



Existing Conditions

Roadway Characteristics

- Principal arterial
- Hurricane evacuation route
- Six-lane facility with medians
- Right-of-way: 80 feet to 170 feet
- Speed limit: 30 to 35 mph

Transit Highlights

- StarMetro and Greyhound are the two major transit services.
- Three StarMetro routes serve Tennessee Street/ U.S. 90
- 20 StarStops along the corridor
- StarMetro and FSU partner to provide Seminole Express and U-Pass system.

Pedestrian Highlights

- Heavy pedestrian activity in the study corridor
- At several locations, sidewalks are narrow and encroached by utilities.
- Due to the high number of driveways, conflicts for pedestrians are high.
- The current resurfacing project (2013) provides two mid-block pedestrian signals along U.S. 90.

Bicycle Highlights

- Bike lanes or sharrows (shared lanes) exist in study area.
- Currently Tennessee Street/U.S. 90 does not have bicycle lanes.
- Bike boxes along Call Street at Stadium Drive increase safety for bicyclists.
- The current resurfacing project (2013) provides sharrows along outside lanes of U.S. 90.



Existing Conditions

- Analysis of existing conditions identified potential mobility and safety issues associated with various transportation modes.
- In addition, future land use and potential tremendous growth of development associated with FSU revealed potential concerns.
- Due to the capacity constraints, high volumes, and high speeds, these undesirable conditions will worsen in the future if not mitigated.



Toolbox for Improvements

- A toolbox for improvements was developed and includes options available for alleviating existing issues and deficiencies.
- These improvements range from relatively low cost options to more capital-intensive measures.





Alternative Analysis

- Four different alternatives were developed to analyze the impact of various improvements along the Tennessee Street/ U.S. 90 corridor and surrounding roadways.
- Improvements focused on all modes of transportation including automobile, pedestrian, bicycle, and transit.
- Alternative 1 was the “no-build” condition which assumes no additional improvements implemented after current resurfacing project.
- Alternatives 2, 3, and 4 included various improvements from the toolbox for each mode.



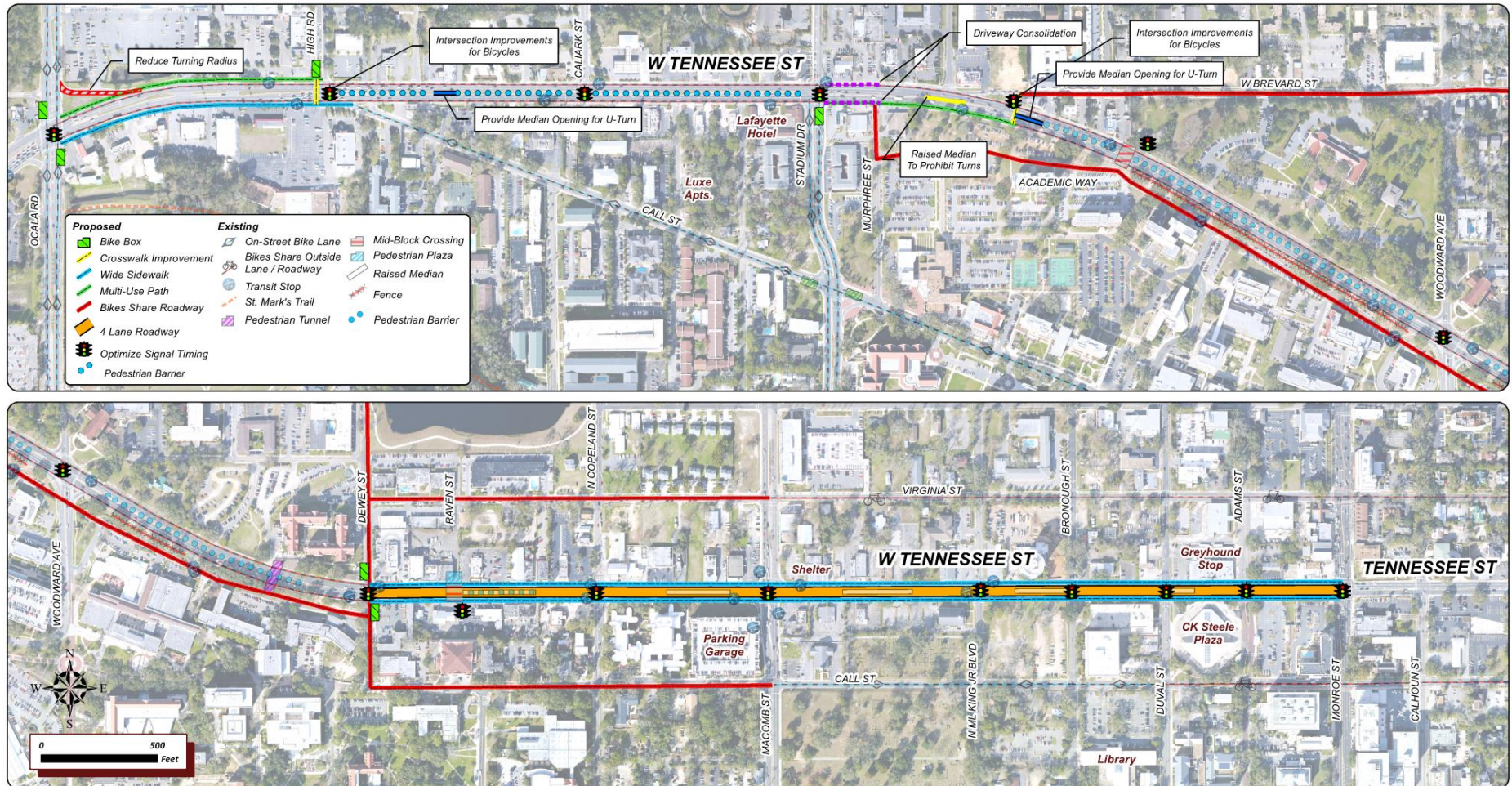
Alternative Analysis

- Future year 2025 study area travel demand model, developed from a subset of the CRTPA regional model, was used to analyze traffic and travel patterns.
- Changes in travel volumes were converted into level of service (LOS) to measure traffic operations while quality LOS was used to measure bicycle, pedestrian, and transit.





Recommended Alternative





Summary of Recommendations

Pedestrian:

The following pedestrian related improvements are recommended:

- Implement wide sidewalks along eastbound and westbound Tennessee Street/U.S. 90 between Ocala Road and High Road.
- Implement wide sidewalk along eastbound Tennessee Street/U.S. 90 between Stadium Drive and Brevard Street.
- Implement wide sidewalks along eastbound and westbound Tennessee Street/U.S. 90 between Dewey Street and Monroe Street.
- Provide improvements to pedestrian underpass to make it more attractive for pedestrians.

Bicycle:

The following bicycle related improvements are recommended:

- Remove “bike share the lane” pavement marking along the outside lane of Tennessee Street/U.S. 90.
- Implement bike boxes along the cross-streets at the intersections of Tennessee Street/U.S. 90 at Ocala Road, High Road, Stadium Drive, and Dewey Street.
- Create a connected network of bicycle lanes in the study area by implementing new bicycle lanes or bicycle share the road usage to connect to the existing bicycle lanes.

Transit:

The following transit related improvements are recommended:

- Upgrade facilities at StarStops by providing shelter and benches at highly used locations.



Summary of Recommendations

Automobile:

The following automobile related improvements are recommended:

- The number of lanes for automobile along Tennessee Street/U.S. 90 would be reduced to four between Dewey Street and Monroe Street. Between Ocala Road and Dewey Street, the corridor would continue to maintain the existing six lane configuration. This recommendation assumes traffic signal timings along the study corridor intersections, particularly through downtown between Monroe and Dewey Street, would be optimized to provide efficient flow and progression of traffic. The optimized flow along Tennessee Street may come at the expense of coordination along major cross streets, but is required for Tennessee Street to function at an acceptable level with a reduced number of travel lanes.
- Reduce the turning radius for westbound Tennessee Street/U.S. 90 approach at the intersection of Ocala Road and bring the right-turn movement closer to the intersection.
- Provide a median opening for westbound u-turn along Tennessee Street/U.S. 90 between High Road and Caliark Street.
- Prohibit left-turn movements to and from Wardsworth Street at Tennessee Street/U.S. 90 by providing a raised median along the study corridor.
- Provide westbound u-turn movement along Tennessee Street/U.S. 90 at the intersection of Brevard Street.
- Consolidate the driveways along Tennessee Street/U.S. 90 especially near Stadium Drive.
- Improve traffic signal timing by optimizing and coordinating timing at the signalized intersections. Also, improve signal timing for pedestrians/bicyclists at intersections such as High Street, Brevard Street, and Dewey Street.
- Upgrade the backplates at signalized intersections with retroreflective border.



Typical Section Recommendations

SEGMENT A

Ocala Road to
Brevard Street





Typical Section Recommendations

SEGMENT B

Brevard Street to
Macomb Street





Typical Section Recommendations

SEGMENT

Macomb Street to
Monroe Street





Agency Partnerships

- Many of the proposed recommendations for the corridor and the study area are beyond FDOT jurisdiction.
- For example, recommendations include providing bicycle connectivity along study area roadways, bike boxes along cross streets, signal timing optimization and coordination, improvements to pedestrian underpass, etc.
- These improvements are critical to the success of the overall recommendation and close coordination between various agencies – FDOT, City of Tallahassee, Leon County, CRTPA, FSU, and StarMetro – is essential.



Contact Information

Alicia Brininger, FDOT Project Manager

Alicia.Brininger@dot.state.fl.us

850.330.1550

Florida Department of Transportation – District Three

1074 highway 90 East

P.O. Box 607 Chipley, FL 32428

Michael Plagens, Project Manager

PlagensMA@cdmsmith.com

850.386.9530

CDM Smith

3522 Thomasville Road, Suite 300

Tallahassee, FL 32309

