



## Recommendations: Overview

Following a review of the improvement measures recommended by the Pedestrian and Bicycle Mobility Study of 2004, and after an analysis of the physical features and traffic engineering requirements of the Boulevard, the planning team recommends the improvements illustrated on the following pages. The improvements, like those recommended in the Mobility Study, seek to improve conditions for pedestrians, bicyclists, and transit users in the corridor, and to enhance the overall appearance of the Boulevard.

In summary, this Study recommends the following:

- Construct ADA-compliant curb ramps where they are lacking throughout the corridor.
- Provide pedestrian signals where they are absent, especially crossing Martin Luther King Jr. Boulevard.
- Fill in gaps in existing sidewalk coverage to complete the sidewalk network.
- Stripe crosswalks at intersections.
- Construct sidewalks across driveways to provide a continuous walking surface.
- Construct sidewalks with 4' min. planting strips where possible, and wider where conditions permit tree planting.
- Provide median pockets to allow mid-block crossings where warranted by pedestrian activity.
- Construct stone retaining walls at back of walk to retain grade at steep side-slope conditions.
- Stripe 4' or 5' wide bike lanes on both sides of the street the entire length of the corridor; this width is exclusive of the width of the gutter.
- Construct bus pullouts at selected locations.
- Replace benches at bus stops with durable, attractive, standardized furnishings; provide at least two benches at stops that are busy during the morning rush hour.
- Widen the Boulevard at intersections to allow for U-turns and for 8' wide minimum pedestrian refuge areas in the median.
- Stripe 11' wide travel lanes on the Boulevard from Columbia north to Homestead Road.
- Construct a planted, raised median, and include trees where possible in median planting.
- Narrow curb radii at intersections to 25 feet maximum where feasible to shorten pedestrian crossing distances.
- Improve lighting in the corridor, with a focus on intersections, mid-block crossing locations, and other high pedestrian use areas.

Some of the above measures, such as completing the sidewalk network and updating curb ramps to ADA-compliant standards, can be achieved at relatively little cost and pursued immediately. Other measures, such as widening the Boulevard at intersections and providing a raised median, will require further study based on information such as ground survey, traffic counts, and midblock crossing warrant studies.

Among the "big-ticket" items that will create the most benefit for pedestrians, bicyclists, and transit users are the creation of a raised median, striping of bike lanes, and narrowing of vehicular lanes. These measures will all contribute to an actual and perceived narrowing of drive lanes, which will encourage slower driving. A raised median will eliminate many of the conflict points that currently obtain in the corridor as a result of a continuous two-way left-turn lane. A median can also provide pedestrian refuge areas at intersections and midblock crossing locations that reduce crossing length.

For the southern two-thirds of the corridor where no median currently exists, the implications of providing a raised median are the following:

- Since the median would be continuous with gaps only at major intersections, U-turns would have to occur at those intersections. To enable these U-turns, some widening of intersections would be required.
- This Study recommends providing a pedestrian refuge of 8 feet minimum at major intersections. The roadway widening at intersections would also make this provision possible.
- This study also recommends four-foot bike lanes adjacent to a two-foot concrete gutter that is not a part of the bike lane. Ideally, the Boulevard would be widened along much of its length to provide both a twelve to twenty-foot median as well as bike lanes. However, this study suggests that with an eight-foot median, both a median and bike lanes can be provided without moving curbs. Since eight feet is a minimum practicable width for a grassed median, the exact dimensions of the existing roadway are critical in determining the feasibility of this option. Precise ground survey is beyond the scope of the present Study. Dimensions given on these plans are based on rough field measurements only.
- If the option of a continuous median is not pursued, this Study recommends that smaller medians, with median pockets, be provided to allow for midblock crossings of pedestrians at selected locations. Locations of these items are indicated on the plans following. Median pockets will require further study in the form of a MUTCD Warrant Study to determine whether conditions are appropriate for their construction.

All changes to the Boulevard within the Right of Way are subject to the review and approval authority of NCDOT, who is the owner of the Boulevard. That agency has been informed of this study and should continue to be a part of any proposal to modify the existing roadway and associated facilities.

## NC 86/Martin Luther King Jr. Boulevard Corridor and Town-Wide Pedestrian Safety Evaluation Study