

Rapid implementation study for deploying regional FAST transit infrastructure and activating SMART freeway corridors across the metropolitan Triangle region

Introduction

The regional business community, area public transit and transportation agencies, and NCDOT (collectively, “the partners”) recognize that an increasingly effective, equitable, and exceptional regional transit system will be transformational for the Research Triangle metropolitan area and our state. An enhanced transit system will expand accessibility, increase opportunity, and improve economic mobility and sustainability.

Given the expanding size, dispersion, and growth of the Research Triangle extended metropolitan area, which increasingly includes nearby portions of central, southern and eastern North Carolina, the urgency for enhanced transit infrastructure is clear. This study focuses on ways to quickly leverage, expand, and link major transit investments – in particular new BRT corridors and extensions – in a meaningful, actionable, and scalable manner.

The partners recognize that the most time- and cost-effective method of quickly creating an interconnected, enhanced regional transit network that can broadly serve the metropolitan Triangle will be to leverage the existing and proposed freeway and regional boulevard network.

Summary of purpose and scope

The centerpiece of this effort is accelerating the implementation of Freeway, Arterial, Street, and Tactical (FAST) transit priority infrastructure on freeways and other major roadways across our region. In other words, to make our freeways and regional boulevards “transit ready”, by incorporating, expanding, and linking proposed BRT corridors and extension, while complementing upcoming and potential investments in BRT and rail transit.

The study also includes the development of one or more BRT corridors that will directly serve RDU Airport and directly serve or link to BRT serving the downtowns of our four largest communities: Raleigh, Durham, Cary, and Chapel Hill, along with Research Triangle Park (RTP).

In addition, this study focuses on advancing the complementary activation of SMART (Systematic Management of Adaptable Roadways through Technology) freeway corridors to improve travel for all users in a cost-effective, impact-minimizing fashion. These include an expansion of on-ramp signals with transit priority for freeway interchanges across our metropolitan area, as well as freeway connector ramp signals and variable speed limits.

The study will also help formulate a regional vision, goals, and brand for transit and mobility, and utilize modeling tools from the NCDOT Integrated Mobility Division (IMD), in congruence with NCDOT IMD objectives.

Public-private partnership focus

The regional business community is committed to deploying a minimum of \$100,000 for this effort through an investment by RTA. Several local and regional partners are considering matching grants or other investment levels.

NCDOT Integrated Mobility Division will provide management and administration for this effort, in addition to making an investment in the study.

Action orientation to improve transit – and not just transit

This study will deliver an actionable plan, including specific funding/project recommendations including STIP project identification or proposed adjustments, for the accelerated implementation of FAST transit priority infrastructure, complemented by SMART freeway corridor activation.

This study is for all users, not just transit. While this effort has a primary objective of prioritizing and enhancing transit, it also focuses on ways to improve roadways for all users, from an operational and targeted congestion relief standpoint, with transit as an important but not exclusive beneficiary of those efforts. This true multimodal emphasis will broaden both the overall acceptance of this study and the effectiveness of the resulting deployment.