

1. EXECUTIVE SUMMARY

As part of the Capital Region’s long range metropolitan transportation plan, the Capital District Transportation Committee (CDTC) and the Capital District Transportation Authority (CDTA) identified the use of bus only lanes and infrastructure improvements as potential tools to support the development of a high-performance regional transit system. CDTA currently operates two BRT lines and is building a third but identified a need to expand the number and intensity of bus priority treatments to improve bus operations and the customer experience. To determine the feasibility of implementing bus only lanes (and other bus priority treatments), the project team engaged in a study that resulted in four concept designs focused on an implementable, tactical approach.

The study consisted of data analysis to identify bus lane candidate locations, a public education and participation program, a visual display of bus lane street layouts, an assessment of bus priority treatment options, and development of bus and bike priority concepts. This process included evaluating twelve (12) different corridors to help prioritize improvements at key locations. As part of this evaluation, consideration was given to bus only lanes, shared bus and parking lanes, as well as shared bus and bike lanes in BRT and other transit corridors throughout CDTA’s service area. The identified improvements will allow buses to operate faster and more reliably and will improve service to thousands of riders daily. The resulting recommendations from this study will set the stage for moving bus priority in the region forward. **Figure 1** provides an outline of the project scope and workflow.

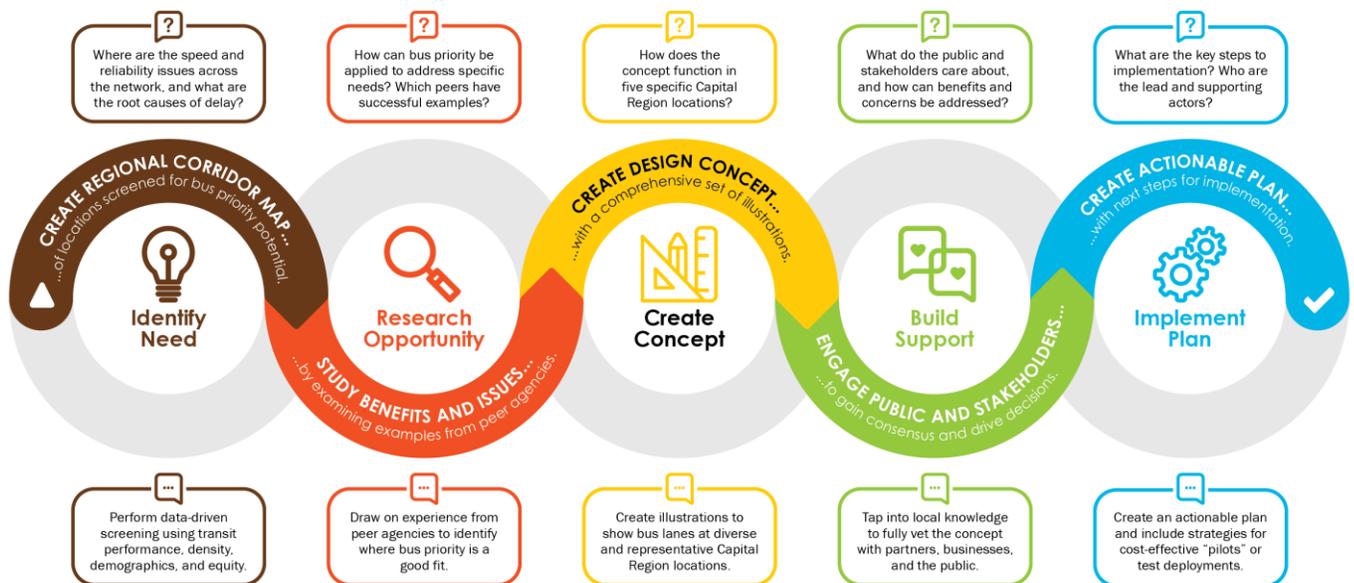


Figure 1: Bus Lane Study Project Flow

Previous Plan and Peer Review

Several previous planning documents and peer studies were identified and reviewed for relevant takeaways pertaining to bus lane feasibility and implementation. The Capital Region's local plans identified bus only lanes and transit priority treatments as key strategies for reducing travel times. Peer studies provided context and guidance on successful implementation of bus only lanes, drawing attention to the importance of tactical pilot implementations, speed and reliability benefits, and minimal to no impacts to personal vehicles.

Corridor Identification, Assessment, and Screening

Preliminary corridors were identified based on locations with population and employment density; a significant amount of bus trips and bus passengers; relatively low transit speeds, significant concentrations of traditionally disadvantaged populations; and overall value to the transit network. Based on these criteria in addition to an existing conditions analysis and extensive stakeholder engagement, five priority corridors were selected to move forward to the conceptual design process. During the process, in consultation with City of Albany staff, two of these corridors, Washington/State and Broadway, were combined, resulting in four study corridors moving forward.



Troy - 3rd / 4th Street Corridor



Albany - Central Avenue Corridor



Schenectady - State Street Corridor



Albany - State/Broadway Corridor

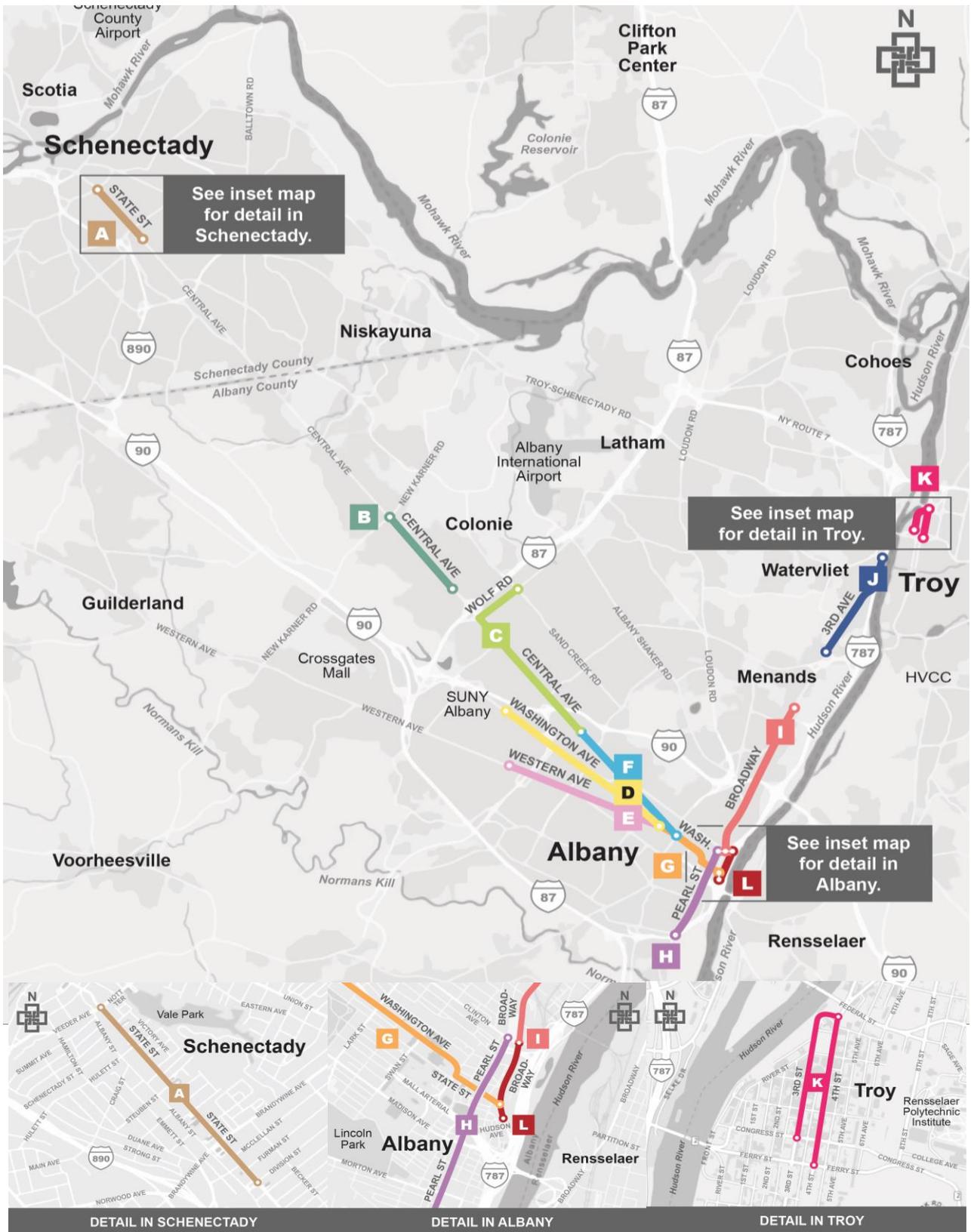


Figure 2: Potential Priority Corridors

Bus Lane Concepts

For each of the final priority corridors, several strategies were identified for the potential implementation of bus only lanes and other transit priority treatments. Accompanying the strategies for each corridor are conceptual designs and visualizations of bus only lanes and queue jumps implemented into the streetscape. These concepts were discussed and vetted with the Stakeholder Committee, Leadership Committee, and local agency planning and engineering staff. As a result, several adjustments were made to the concepts before they were presented to the public. Two examples of many are shown below.

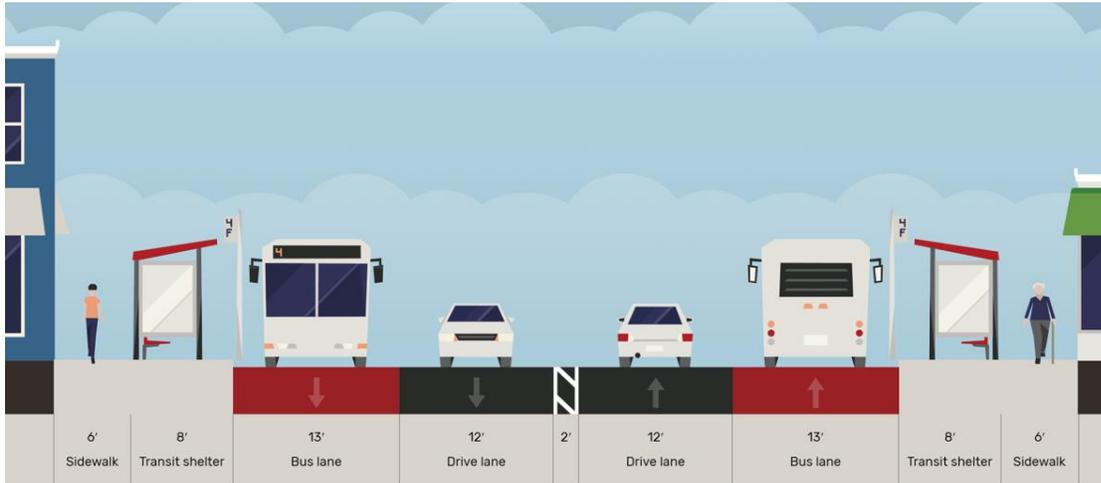


Figure 3: Bus Lane Concept Example 1

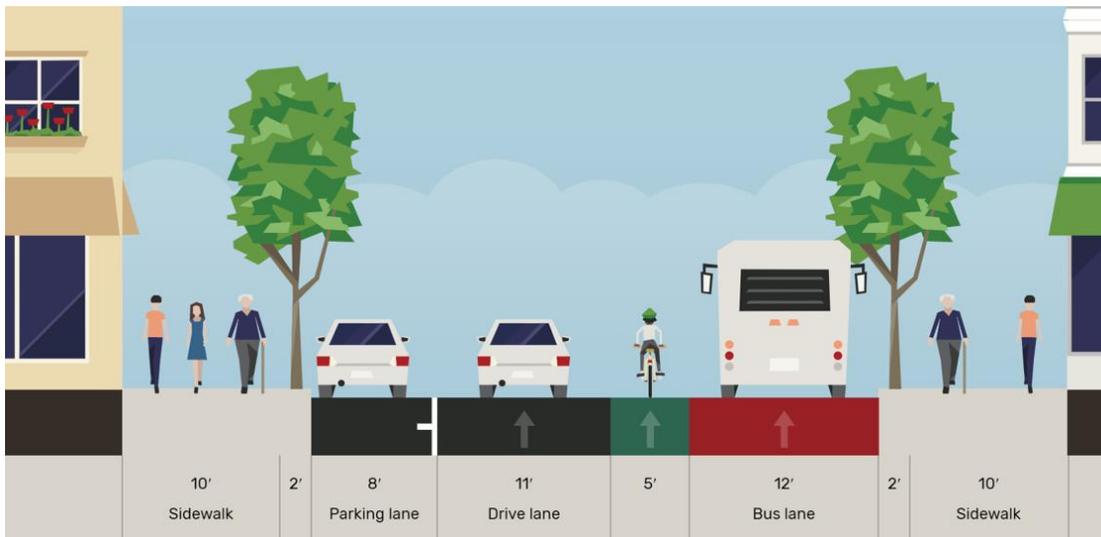


Figure 4: Bus Lane Concept Example 2

Public and Stakeholder Engagement Results

Public and stakeholder engagement revealed strong support for bus only lanes and bus priority treatments, with respondents emphasizing the importance of improving congestion and travel time reliability. Respondents also provided rankings of their modal priorities for each corridor, ranking pedestrian improvements as the number one priority for each of the identified corridors. In all corridors bus priority treatments were ranked second place, followed by bicycle priority improvements, and finally personal vehicles were ranked last in every corridor by a wide margin. In total over 2,000 people from across the region participated in the study through pop-up events and online surveys.

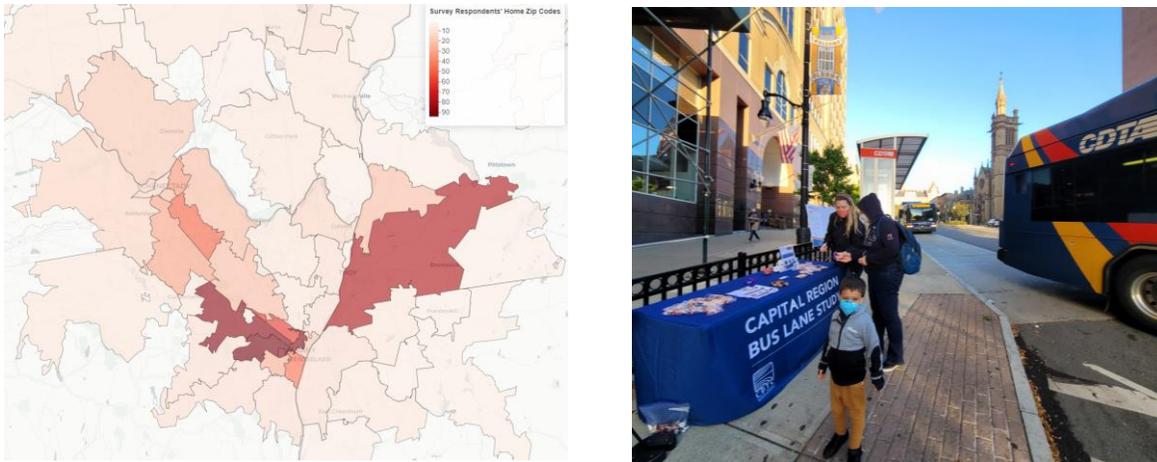


Figure 5: Phase II Survey Respondents Home Zip Code and Phase I Pop-Up Event

Final Recommendations

As a result of the extensive community and public input, feedback, and comments; the final recommendation for each corridor includes a combination of bus, bike, and pedestrian improvements to improve safety for all users while increasing bus service performance. In each corridor this means that rather than having a single bus priority recommendation in a given segment, the recommendation is to pursue multimodal improvements that prioritize pedestrian safety and comfort, bicyclist safety and comfort, and improve bus operations through targeted and tactical strategies. The latter will come in a variety of forms including bus lanes, queue jumps, and transit signal priority. Other priority treatments described in the *Capital Region Bus and Bike Priority Toolbox* may also be deployed to this end.

SMART TRANSIT CORRIDORS

All of the final recommendations are being presented through a new concept for the region called Smart Transit Corridors (Figure 6). The Smart Transit Corridor concept combines three key elements: the geography of intended improvements (four corridors presented in this plan); the types of bus priority recommendations intended for each corridor; and the anticipated benefits from deployment of the bus priority strategies. The Smart Transit Corridor concept is not intended to be prescriptive in terms of specific strategies at specific locations (which require further study, analysis, and design). Rather it is intended to provide the framework for moving bus priority implementation forward across a system of roadways throughout the entire region. As the region changes, and CDTA service adapts to those changes, the Smart Transit Corridor concept may also change, including the potential for additional corridors to be added in the future.

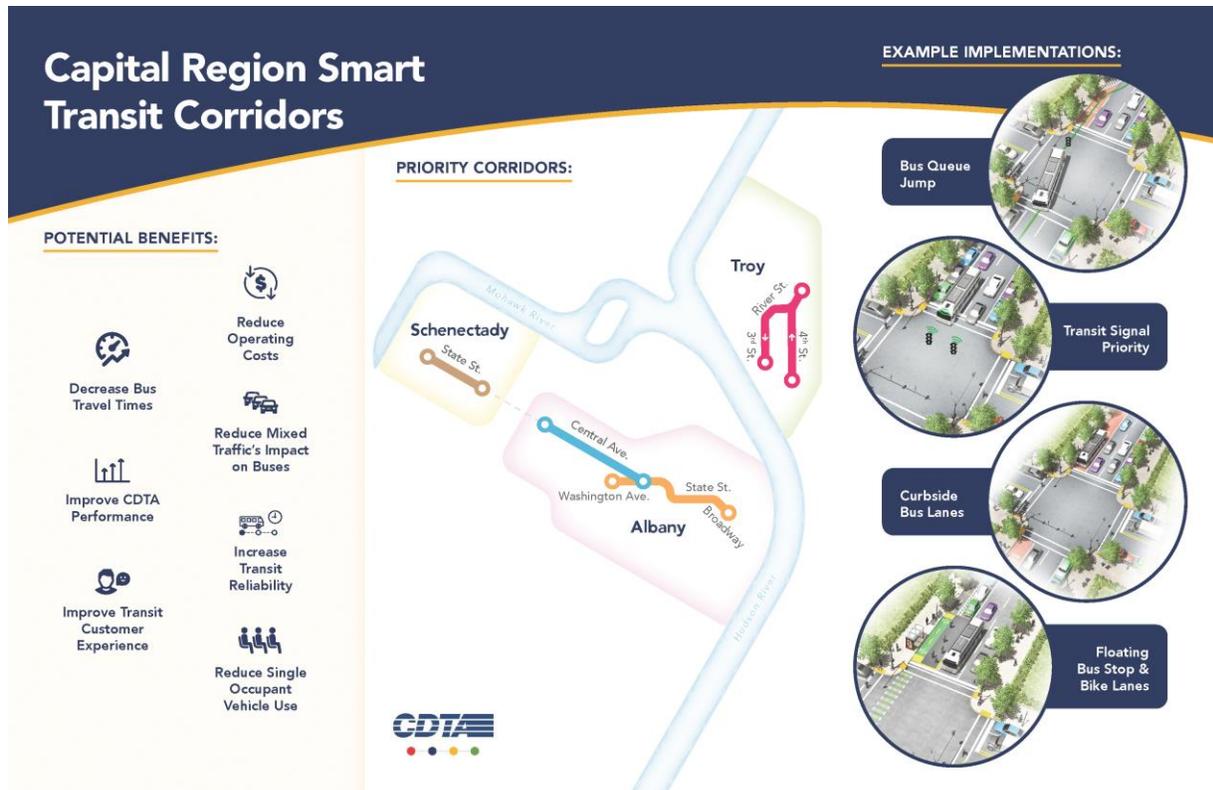


Figure 6: Smart Transit Corridors Concept

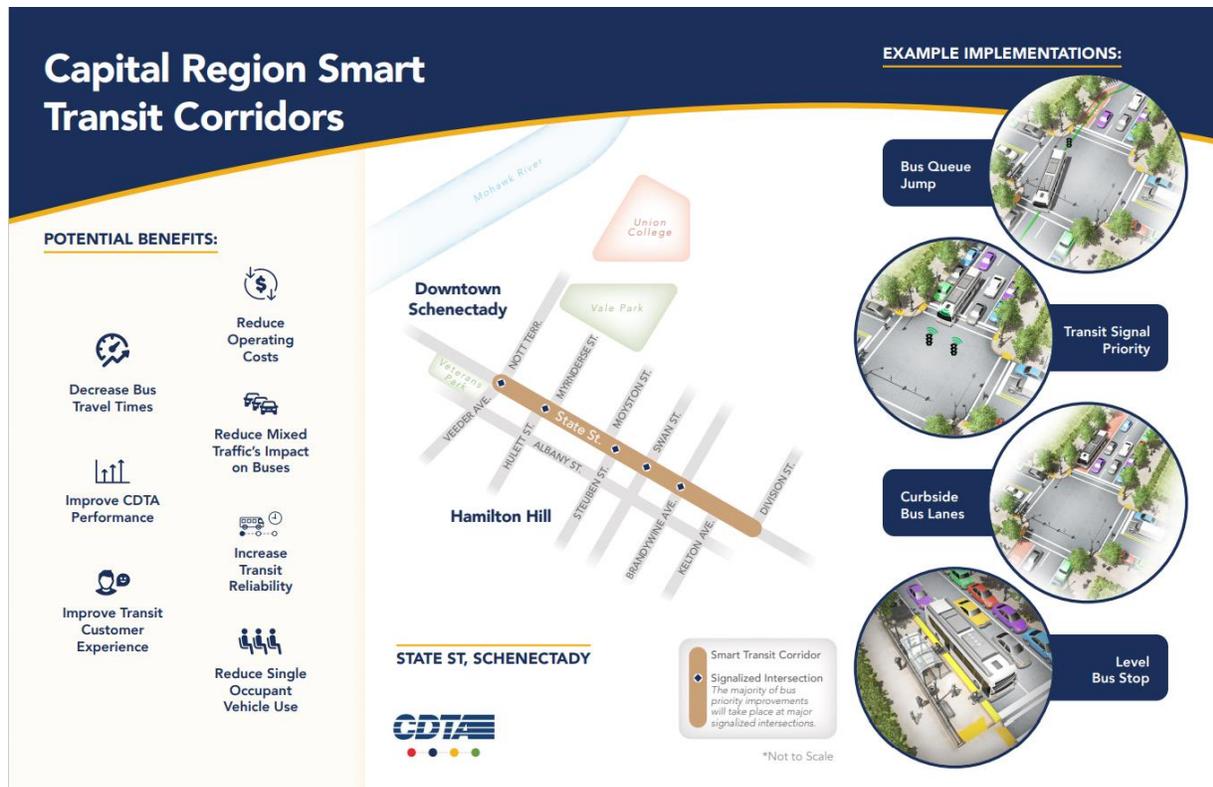


Figure 7: Schenectady State Street - Smart Transit Corridors Concept

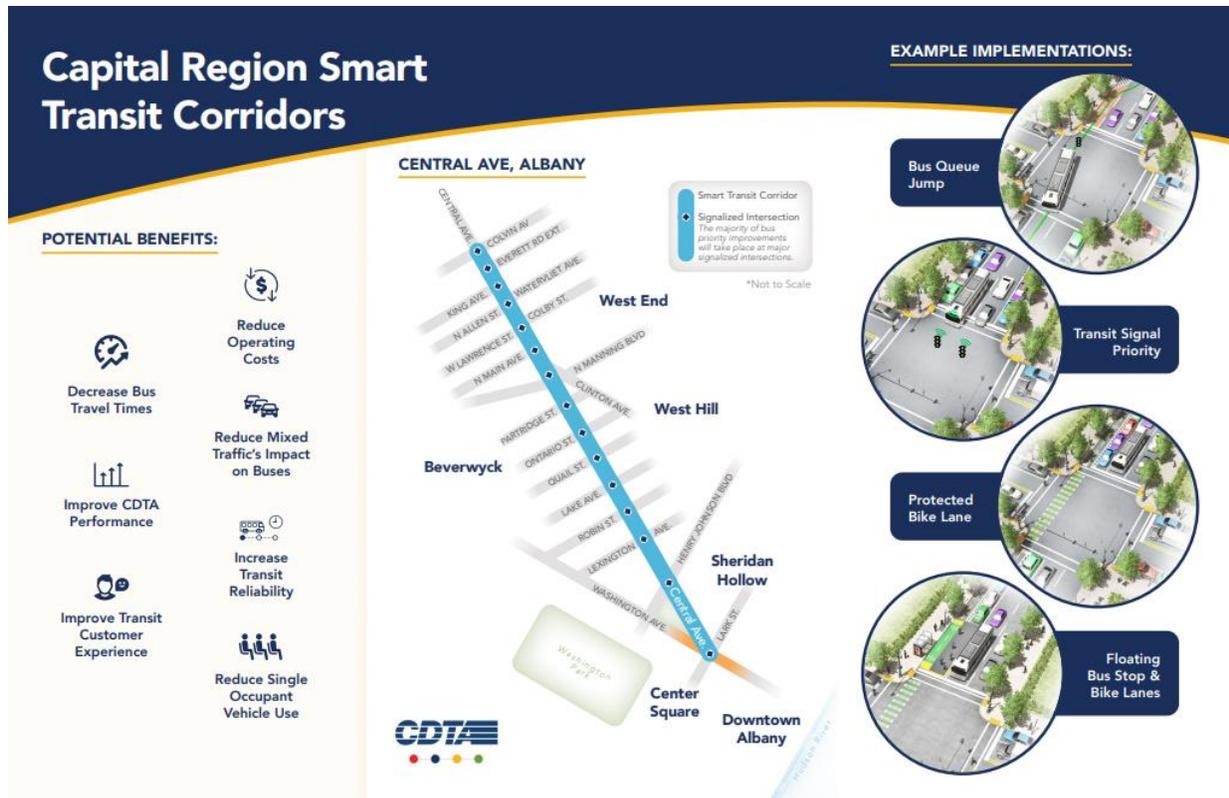


Figure 8: Albany Central Avenue - Smart Transit Corridors Concept

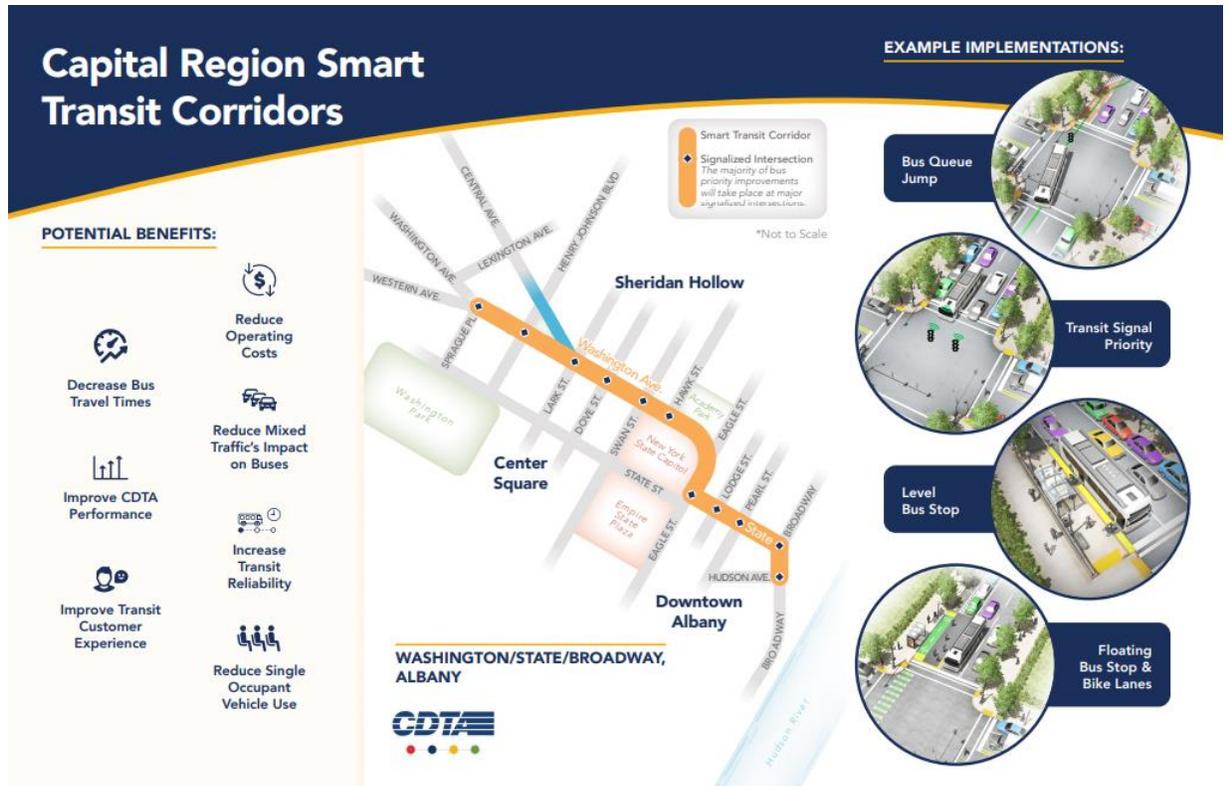


Figure 9: Albany Washington/State/Broadway - Smart Transit Corridors Concept

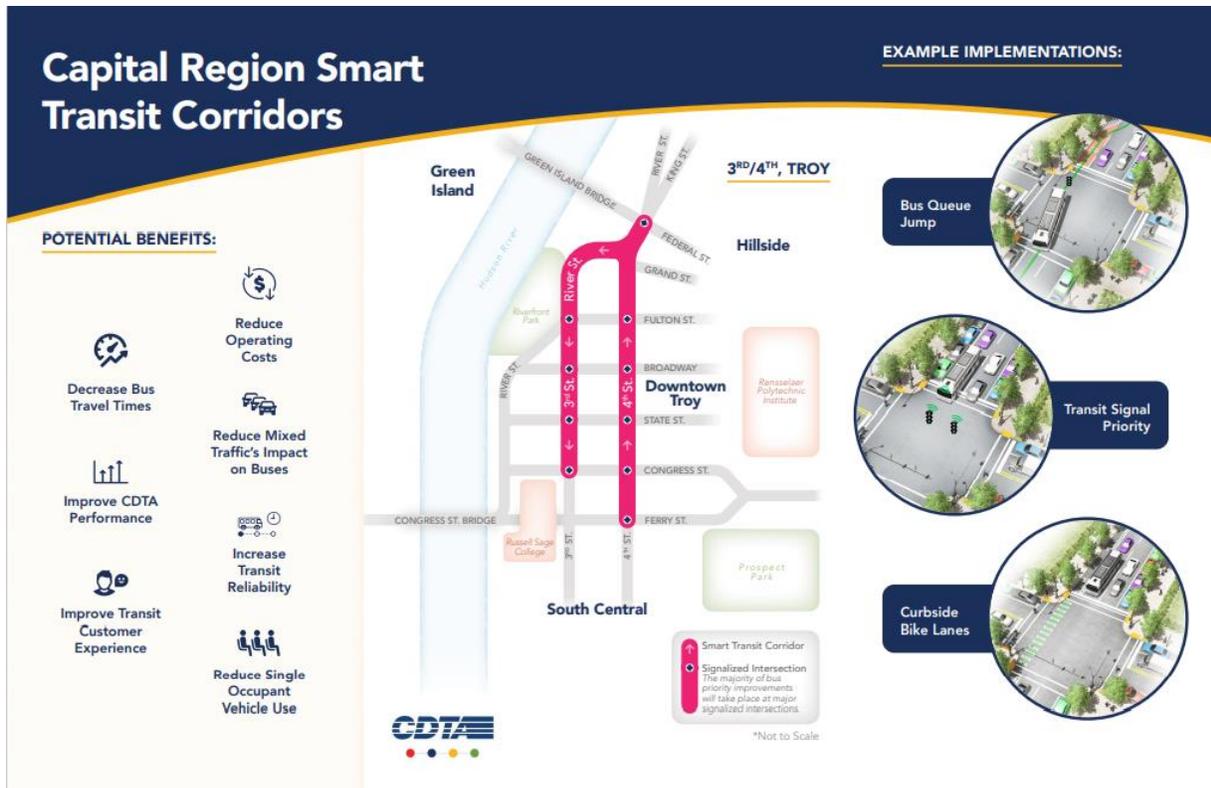


Figure 10: Troy 3rd/4th Street - Smart Transit Corridors Concept

Implementation Plan

The implementation of the improvements described in this report will require further study, project champions, design, funding, construction, and monitoring. The timing of the various improvements (pedestrian, bicycle, and bus) will need to be carefully coordinated and planned, as they may occur incrementally and not through a combined project. The first task for agency partners will be to identify additional study that is required for each corridor (Figure 11). After those studies, and once improvement plans are confirmed, the design of improvements can commence, in parallel with securing funding for implementation. Coordination with the New York State Department of Transportation (NYSDOT) will be required for all state facilities.

Parking Studies

Traffic Analysis and Simulation

Transit Operations

Geometric Design

Streetscape/Multimodal



Figure 11: Potential Areas of Additional Study for Each Corridor