



# Superstreets

## Benefits of Superstreets:

Safety

Time Savings

Increased Capacity

Access Management

Improved Traffic Flow

Land-use and Corridor Protection

Less Expensive than Grade-Separated Alternatives



## Route 10 Widening Project

State Project: 0010-020-632, PE101, R201, C501

UPC No: 101020

Federal Project: STP-5A27(149)

For more information, please contact:

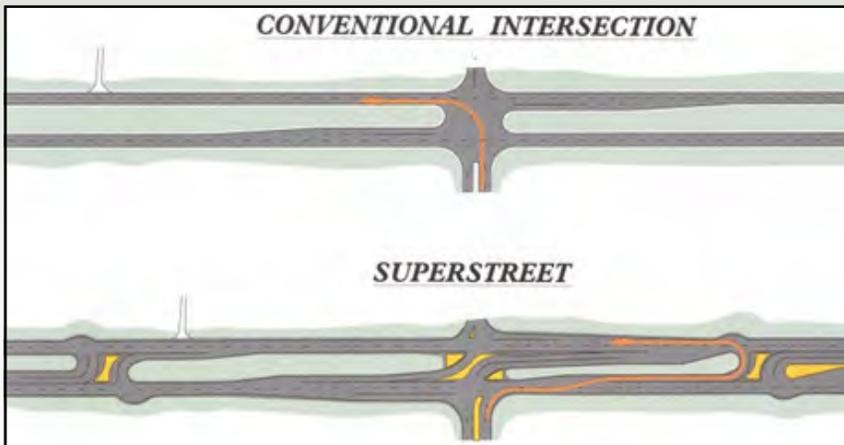
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# What is a Superstreet?

A Superstreet is an innovative intersection treatment that safely and efficiently manages congestion by eliminating the left and through movements on the minor cross streets of a busy intersection. Traffic on the cross-streets wanting to make a left or through movement will instead make a right turn and then a subsequent U-turn in order to get to their desired location. If enough traffic is anticipated, the U-turn crossovers could also be signalized.

Although there are no superstreets in Virginia, these innovative intersections have been successfully used in many other states, including busy high-volume arterial roads in North Carolina, Maryland, Texas, Michigan, and Utah. Those other roads share many similar characteristics with Route 10, including high traffic volumes and heavy concentrations of adjacent businesses.



Cost and Impacts: A superstreet can process significantly more traffic volumes than a conventional intersection, but without the cost and the right-of-way impacts of other alternatives such as an interchange.

Suitability to Route 10: Ideal locations for superstreets in suburban areas are higher-speed, higher-volume arterials that are anticipating commercial and residential growth. Significant growth is anticipated on Route 10 between now and the 2036 design year. The fact that Route 10 already has an existing wide median to handle U-turning traffic by cars and trucks means this road is ideally situated to accommodate the superstreet treatment with minimal impacts beyond what would be needed for conventional widening.

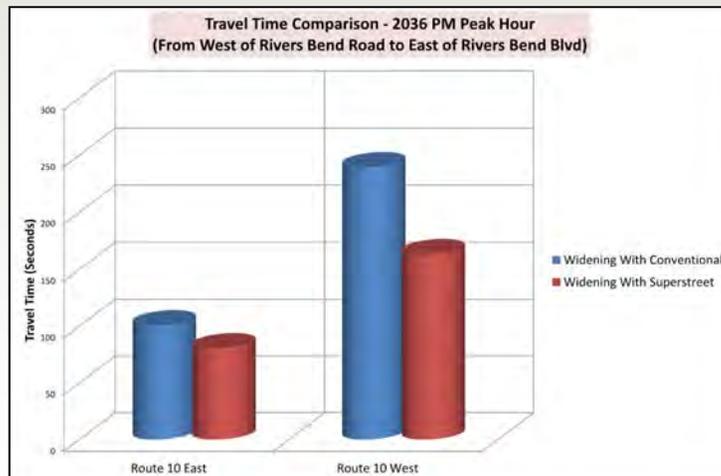
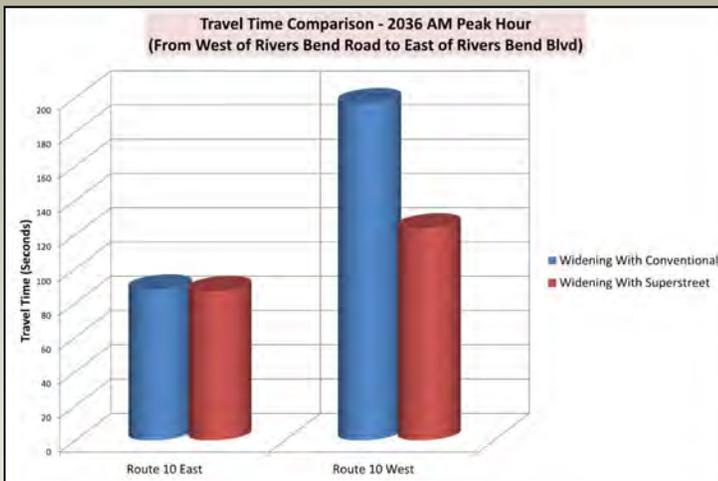
## Testimonials to Economic Growth:

*“As traffic congestion on US Highway 281 eases due to completion of the superstreet project, construction of new commercial and retail developments along the far North Central San Antonio [TX] corridor is ramping up.*

*‘We are close to 90 percent leased with no pad sites left. We’ve had quite a bit of interest because of the market, which is in a high growth area. And a lot of our tenants say they feel like business has increased since the superstreet was finished.’ ” – San Antonio Express-News, 3/17/11*

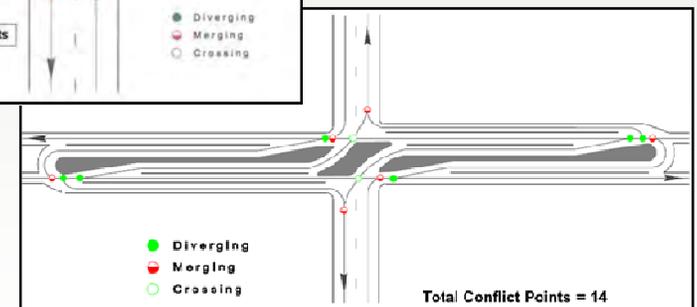
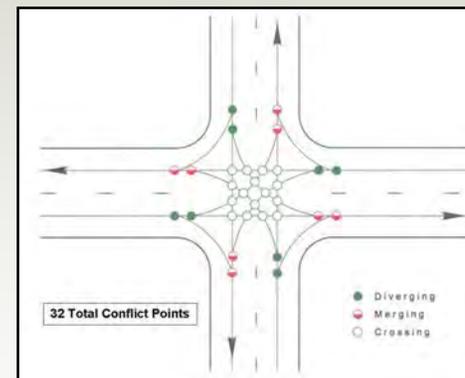
# Why Build a Superstreet?

**Capacity and Travel Time:** A normal traffic signal requires as many as eight signal phases to accommodate all left-turning and through traffic. A superstreet only requires two signal phases at each intersection. This greatly increases the efficiency of the signals, particularly when multiple intersections on the same corridor are converted to superstreet. The traffic simulations of the Route 10 project predict that, in the year 2036, travel times could improve by as much as 37% on Route 10 West and by 20% on Route 10 East when comparing the superstreet alternative to conventional widening of Route 10.



A superstreet offers many advantages over conventional intersections, including:

**Safety:** Superstreets have been shown to operate with considerably fewer crashes than conventional intersections with comparable traffic volumes. For example, an intersection in North Carolina went from having 24 crashes in the 3 years before conversion to a superstreet, to only 2 crashes in the 3 years after conversion. The primary reason for this is that a superstreet has only 14 “conflict points” – points where the paths of any two through or turning vehicles diverge, merge, or cross – as compared to 32 conflict points at a conventional intersection.





# ROUTE 10 WIDENING AFTER



Route 10 at Meadowville Road