**Background**
A four-lane divided expressway, US 17 is located near the coastline south of Wilmington, North Carolina. A major north-south highway, US 17 provides access to over 40 named beaches, the Hatteras National Seashore, and the Pea Island National Wildlife Refuge in addition to serving key military bases, ports, and shopping centers. North Carolina DOT (NCDOT) has identified US 17 as one of the state's Strategic Highway Corridors.

**Challenges**
US 17 was a road with no signals and an average daily traffic (ADT) volume of about 28,000. Developers were planning to build a discount super store and a large shopping center, spurring residential and economic growth in the area. However, the existing conventional intersections along the corridor near Wilmington and Leland already operated at capacity. They could not meet the mobility, safety, and economic development expectations of the region.

**Approach**
Local developers shared NCDOT's interest in improving and enhancing area roadways, so they formed a public-private partnership. Their combined resources allowed the installation of a series of six Restricted Crossing U-Turn (RCUT) intersections along US 17. Also known as Superstreets, these intersections were capable of handling nearly twice as much traffic as the original, conventional alternatives.

**Results**
Users are realizing safety and mobility benefits on the entire corridor. At the Wilmington intersection, drivers are moving through the main intersection 20 percent faster than before, even though ADT has increased to more than 42,000. Simulations of the whole corridor show a 25 percent decrease in travel times during peak hours. A study of North Carolina RCUT intersections shows average decreases of 46 percent in total crashes and 63 percent in injury crashes due to the RCUT design.

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**CORRIDOR LOCATION**
34°12'49.88"N, 78°1'22.16"W