

SWARCO McCain NORTH CAROLINA

FEATURED
DEPLOYMENT

STATEWIDE

North Carolina Department of Transportation (NCDOT) leads the way in statewide traffic modernization with interoperable controller deployment

OVERVIEW

SWARCO McCain's 2070LX Controllers integrate seamlessly with third-party software, reinforcing NCDOT's vendor-neutral, statewide traffic control strategy.

LOCATION

North Carolina is located in the southeastern region of the United States. The strategic location of North Carolina places the state along major transportation corridors that connect the East Coast to the interior of the country. The state has experienced significant population growth over the years, particularly in urban areas such as Charlotte and Raleigh. North Carolina's rapid growth has intensified pressure on its transportation infrastructure which is leading to congestion and overburdened signal systems.

THE CHALLENGE

To reduce congestion in North Carolina and modernize operations, NCDOT aimed to upgrade its system while preserving flexibility in technology selection. A statewide standardization initiative emphasized the need for controller platforms to be compatible with multiple vendors and jurisdictions. In 2022, NCDOT awarded a contract for local controller software with the requirement that it run on third-party ATC hardware. The core challenge was achieving true interoperability, allowing the agency to deploy its selected software on controllers from different manufacturers without compromising functionality or standards compliance.

SOLUTION

In 2024, NCDOT issued a hardware procurement bid, which was awarded to SWARCO McCain. SWARCO McCain provided the 2070LX Controllers equipped with the SWARCO McCain 2070-1C CPU module, fully compatible with the existing local controller software. This deployment demonstrated true interoperability, successfully running competitor third-party software on SWARCO McCain 2070LX controllers while meeting NCDOT's functional and cost requirements.

THE RESULTS

As of May 1, 2025, 1,940 units were shipped to NCDOT, with an additional 650 units ordered in July 2025. This deployment supports NCDOT's transition to a modern, flexible, and cost-effective signal control system. By enabling the independent sourcing of hardware and software, the project avoided single vendor dependency and ensured long-term adaptability. This project demonstrates how ATC standards enable true interoperability by allowing software and hardware from different vendors to work seamlessly together. SWARCO McCain's controller hardware offered the best price while fully meeting all specifications, showcasing the company's strong value and competitiveness in large public infrastructure projects.

BENEFITS OF 2070LX CONTROLLER

- Supports a variety of applications through modular design
- Allows an upgrade to more modern software while retaining existing hardware
- Ensures compatibility with standard products and intersection control software

